

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

STREAM: Long Prairie Creek (MC-335)  
BASIN: Siletz River  
SURVEY TYPE: Pre-Tx  
DATE: August 2, 2006  
SURVEY CREW: Annette Garrigues, Jeff Snyder  
REPORT PREPARED BY: Paul Jacobsen  
BASIN AREA: 13.4 km<sup>2</sup>  
USGS MAPS: Eddyville  
ECOREGION: Coast Range Sedimentary

**GENERAL DESCRIPTION:**

The Long Prairie Creek habitat survey extended 523 meters. The channel was constrained by terraces in a broad valley floor. The average valley width index was 7.3 (range: 6.1-8.2). Land use for the reach was young (3-15 cm dbh) and second growth (15-30 cm dbh) trees. The average unit gradient was 0.9 percent. Scour pools (61%) dominated stream habitat. Gravel (28%), sand (21%) and silt (21%) dominated stream substrate. Wood volume was moderate at 23.6 m<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.

REACH 1

T10S-R09W-S08SW

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         | 7.3 | VWI Range:                | 6.1 - 8.2 |

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   | 523               | 3,283            | 0                |
| Secondary Channel | 18                | 71               | 0                |
| Off-Channel Units | 10                | 8                | 0                |

Channel Dimensions (m)

| <u>Wetted</u> | <u>Active</u> | <u>Floodprone</u> n = 5 | <u>First Terrace</u> n = 5 |
|---------------|---------------|-------------------------|----------------------------|
| Width: 6.1    | Width: 8.7    | 9.8 ( 7.5 - 12.1 )      | 11.9 ( 9.6 - 14.5 )        |
| Depth: 0.33   | Height: 0.4   | 0.8 ( 0.7 - 0.9 )       | 1.4 ( 1.25 - 1.45 )        |

W:D ratio: 21.8

Entrenchment (ACW:FPW ratio): 1.2

Stream Flow Type: MF

Habitat Units/100m (total channel length): 6.0

Average Unit Gradient: 0.9%

Habitat Units/100m (primary channel length): 6.3

Water temperature (°C): 14.0 - 14.0

**Riparian, Bank, and Wood Summary**

|                      | <u>Primary</u> | <u>Secondary</u> |
|----------------------|----------------|------------------|
| Land Use:            | YT             | ST               |
| Riparian Vegetation: | D30            | G                |

Bank Condition and Shade

| <u>Bank Status</u> | <u>Percent Reach Length</u> | <u>Shade (% of 180)</u> |
|--------------------|-----------------------------|-------------------------|
| Actively Eroding:  | 19%                         | Reach avg: 92%          |
| Undercut Banks:    | 9%                          | Range: 56 - 100         |

Large Wood Debris

|                             | <u>Total</u> | <u>Total / 100m primary channel</u> |
|-----------------------------|--------------|-------------------------------------|
| All pieces (>=3m x 0.15m):  | 39           | 7.5                                 |
| Volume (m <sup>3</sup> ):   | 124          | 23.6                                |
| Key pieces (>=12m x 0.60m): | 23           | 4.4                                 |

HABITAT INVENTORY

Report Date: 3/5/2007

Survey Date:

8/2/2006

| REACH 1             |                 | T10S-R09W-S08SW        |                     |                     |                                    |                               | 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      |
| GLIDE               | 3               | 80                     | 6.3                 | 0.23                | 500                                | 0                             | 0                                | 30        | 40        | 17        | 0        | 13        |
| POOL-DAMMED         | 2               | 28                     | 6.8                 | 0.73                | 209                                | 0                             | 30                               | 55        | 10        | 5         | 0        | 0         |
| POOL-LATERAL SCOUR  | 10              | 267                    | 6.9                 | 0.59                | 1,856                              | 0                             | 21                               | 28        | 20        | 3         | 3        | 25        |
| POOL-STRAIGHT SCOUR | 1               | 29                     | 6.8                 | 0.65                | 197                                | 0                             | 15                               | 0         | 0         | 0         | 0        | 85        |
| RIFFLE              | 7               | 110                    | 3.2                 | 0.23                | 399                                | 4                             | 3                                | 20        | 43        | 20        | 0        | 15        |
| STEP/COBBLE         | 6               | 34                     | 4.6                 | 0.10                | 153                                | 0                             | 0                                | 12        | 47        | 23        | 0        | 18        |
| STEP/LOG            | 4               | 4                      | 10.6                | 0.01                | 46                                 | 0                             | 100                              | 0         | 0         | 0         | 0        | 0         |
| <b>Total:</b>       | <b>33</b>       | <b>551</b>             | <b>6.1</b>          | <b>0.33</b>         | <b>3,362</b>                       | <b>4</b>                      | <b>Avg: 21</b>                   | <b>21</b> | <b>28</b> | <b>11</b> | <b>1</b> | <b>18</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 | 2               | 28                     | 6.8                 | 0.73                | 209               | 6.22%   | 0              | 0.0                      |
| Scour Pools       | 11              | 296                    | 6.9                 | 0.59                | 2,054             | 61.09%  | 0              | 0.0                      |
| Glides            | 3               | 80                     | 6.3                 | 0.23                | 500               | 14.88%  | 0              | 0.0                      |
| Riffles           | 7               | 110                    | 3.2                 | 0.23                | 399               | 11.87%  | 4              | 1.0                      |
| Rapids            | 0               | 0                      |                     |                     | 0                 | 0.00%   | 0              | 0.0                      |
| Cascades          | 0               | 0                      |                     |                     | 0                 | 0.00%   | 0              | 0.0                      |
| Step/Falls        | 10              | 37                     | 7.0                 | 0.07                | 199               | 5.93%   | 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> | Total of all Channel Lengths |   |
|                                       |              | <u># / Km</u>                | Primary Channel Length<br><u># / Km</u> |
| All Pools:                            | 13           | 23.6                         | 24.9                                    |
| Pools >=1m deep:                      | 1            | 1.8                          | 1.9                                     |
| Complex pools (LWD pieces>=3):        | 2            | 3.6                          | 3.8                                     |
| Pool frequency (channel widths/pool): | 4.9          |                              |   |
| Residual pool depth (avg):            | 0.59         |                              |   |

OREGON DEPARTMENT OF FISH AND WILDLIFE  
HABITAT INVENTORY

LONG PRAIRIE CREEK PRE-TX  
GCG: 2-MC SITE ID: 335

Survey Date 8/2/2006  
Report Date: 3/5/2007

RIPARIAN ZONE  
VEGETATION SUMMARY

REACH 1

Summary of Riparian Zone (0-30m) 3 transects

|                                 |      |
|---------------------------------|------|
| Total hardwoods/1000            | 569  |
| Total conifers/1000 ft          | 1727 |
| Total conifers >20" dbh/1000 ft | 0    |
| Total conifers >35" dbh/1000 ft | 0    |

Average number of trees in a 5-meter wide band

| Diameter class (cm) | Zone 1<br>0-10 meters |          | Zone 2<br>10 - 20 meters |          | Zone 3<br>20 - 30 meters |          | Zones 1-3<br>0-30 meters |          |
|---------------------|-----------------------|----------|--------------------------|----------|--------------------------|----------|--------------------------|----------|
|                     | Conifer               | Hardwood | Conifer                  | Hardwood | Conifer                  | Hardwood | Conifer                  | Hardwood |
| 3-15cm              | 0.0                   | 0.0      | 23.7                     | 2.7      | 0.0                      | 1.3      | 23.7                     | 4.0      |
| 15-30cm             | 0.0                   | 0.7      | 0.7                      | 0.7      | 0.0                      | 0.0      | 0.7                      | 1.3      |
| 30-50cm             | 0.0                   | 2.0      | 0.7                      | 0.3      | 3.3                      | 0.0      | 4.0                      | 2.3      |
| 50-90cm             | 0.0                   | 1.7      | 0.0                      | 0.0      | 0.0                      | 0.0      | 0.0                      | 1.7      |
| >90cm               | 0.0                   | 0.0      | 0.0                      | 0.0      | 0.0                      | 0.0      | 0.0                      | 0.0      |
| Total/100m2         | 0.0                   | 4.3      | 25.0                     | 3.7      | 3.3                      | 1.3      | 9.4                      | 3.1      |

Canopy closure and ground cover

|                  | Zone 1<br>0-10 meters |  | Zone 2<br>10 - 20 meters |  | Zone 3<br>20 - 30 meters |  |
|------------------|-----------------------|--|--------------------------|--|--------------------------|--|
|                  | (%)                   |  | (%)                      |  | (%)                      |  |
| Canopy closure   | 79                    |  | 68                       |  | 78                       |  |
| Shrub cover      | 13                    |  | 20                       |  | 13                       |  |
| Grass/forb cover | 68                    |  | 43                       |  | 52                       |  |

Predominant landform in each zone

|                   | Zone 1<br>0-10 meters |  | Zone 2<br>10 - 20 meters |  | Zone 3<br>20 - 30 meters |  |
|-------------------|-----------------------|--|--------------------------|--|--------------------------|--|
|                   | (%)                   |  | (%)                      |  | (%)                      |  |
| Hillslope         | 0                     |  | 17                       |  | 50                       |  |
| High terrace      | 100                   |  | 83                       |  | 50                       |  |
| Low terrace       | 0                     |  | 0                        |  | 0                        |  |
| Floodplain        | 0                     |  | 0                        |  | 0                        |  |
| Wetland/meadow    | 0                     |  | 0                        |  | 0                        |  |
| Stream channel    | 0                     |  | 0                        |  | 0                        |  |
| Roadbed/Railroad  | 0                     |  | 0                        |  | 0                        |  |
| Riprap            | 0                     |  | 0                        |  | 0                        |  |
| Surface slope (%) | 13                    |  | 6                        |  | 24                       |  |

**Summary of Riparian Zone (0-30m) for all reaches**

**3 transects**

**Summary of riparian zone (0-100 feet) extrapolated to 1,000 feet along stream**

|                                 |      |
|---------------------------------|------|
| Total hardwoods/1000            | 569  |
| Total conifers/1000 ft          | 1727 |
| Total conifers >20" dbh/1000 ft | 0    |
| Total conifers >35" dbh/1000 ft | 0    |

**Average number of trees in a 5-m wide band**

| Diameter<br>class (cm) | Zones 1-3          |                 |
|------------------------|--------------------|-----------------|
|                        | <u>0-30 meters</u> |                 |
|                        | <u>Conifer</u>     | <u>Hardwood</u> |
| 3-15cm                 | 23.7               | 4.0             |
| 15-30cm                | 0.7                | 1.3             |
| 30-50cm                | 4.0                | 2.3             |
| 50-90cm                | 0.0                | 1.7             |
| >90cm                  | 0.0                | 0.0             |

**RIPARIAN ZONE VEGETATION**

Reach 1

Reach 1

| Unit | Side | Zone | Surface | Slope | Cover (percent) |       |       |          | Diameter class (cm) |       |       |       |     | Notes |               |
|------|------|------|---------|-------|-----------------|-------|-------|----------|---------------------|-------|-------|-------|-----|-------|---------------|
|      |      |      |         |       | Canopy          | Shrub | Grass |          | 3-15                | 15-30 | 30-50 | 50-90 | >90 |       |               |
| 10   | LF   | 2    | HS      | 10    | 85              | 10    | 60    | Conifer  |                     |       | 2     |       |     |       |               |
|      |      |      |         |       |                 |       |       | Hardwood | 1                   |       |       |       |     |       |               |
| 10   | LF   | 1    | HT      | 16    | 80              | 10    | 80    | Conifer  |                     |       |       |       |     |       | TRANS.,       |
|      |      |      |         |       |                 |       |       | Hardwood |                     |       |       |       |     |       | LARGE         |
| 10   | RT   | 1    | HT      | 13    | 70              | 40    | 60    | Conifer  |                     |       |       |       |     |       | HARDWOOD      |
|      |      |      |         |       |                 |       |       | Hardwood |                     |       |       | 1     |     |       | TRANS.        |
| 10   | RT   | 2    | HT      | 4     | 50              | 20    | 6     | Conifer  | 1                   | 2     |       |       |     |       |               |
|      |      |      |         |       |                 |       |       | Hardwood |                     |       |       |       |     |       |               |
| 10   | LF   | 3    | HS      | 15    | 85              | 10    | 60    | Conifer  |                     |       | 2     |       |     |       |               |
|      |      |      |         |       |                 |       |       | Hardwood |                     |       |       |       |     |       |               |
| 10   | RT   | 3    | HT      | 3     | 80              | 20    | 40    | Conifer  |                     |       | 3     |       |     |       | 0435477/49512 |
|      |      |      |         |       |                 |       |       | Hardwood |                     |       |       |       |     |       | 38 ELEV 17M,  |
| 20   | LF   | 1    | HT      | 13    | 70              | 0     | 70    | Conifer  |                     |       |       |       |     |       | 3D            |
|      |      |      |         |       |                 |       |       | Hardwood |                     |       |       |       |     |       | TRANS.        |
| 20   | RT   | 3    | HS      | 98    | 80              | 10    | 60    | Conifer  |                     |       | 1     |       |     |       | 0435388/49510 |
|      |      |      |         |       |                 |       |       | Hardwood |                     |       |       |       |     |       | 86 ELEV 48M,  |
| 20   | RT   | 2    | HT      | 16    | 85              | 10    | 80    | Conifer  |                     |       |       |       |     |       | 3D            |
|      |      |      |         |       |                 |       |       | Hardwood |                     | 2     | 1     |       |     |       |               |
| 20   | RT   | 1    | HT      | 12    | 85              | 10    | 80    | Conifer  |                     |       |       |       |     |       |               |
|      |      |      |         |       |                 |       |       | Hardwood |                     | 1     | 2     |       |     |       |               |
| 20   | LF   | 2    | HT      | 4     | 40              | 40    | 20    | Conifer  | 70                  |       |       |       |     |       |               |
|      |      |      |         |       |                 |       |       | Hardwood | 1                   |       |       |       |     |       |               |
| 20   | LF   | 3    | HT      | 6     | 70              | 10    | 60    | Conifer  |                     |       | 3     |       |     |       |               |
|      |      |      |         |       |                 |       |       | Hardwood |                     |       |       |       |     |       |               |
| 29   | RT   | 3    | HT      | 1     | 80              | 10    | 40    | Conifer  |                     |       |       |       |     |       | 0435410/49510 |
|      |      |      |         |       |                 |       |       | Hardwood | 2                   |       |       |       |     |       | 03 ELEV 62M,  |
| 29   | LF   | 1    | HT      | 12    | 85              | 10    | 60    | Conifer  |                     |       |       |       |     |       | 3D            |
|      |      |      |         |       |                 |       |       | Hardwood |                     | 1     | 4     | 2     |     |       | TRANS,        |
| 29   | LF   | 2    | HT      | 1     | 60              | 30    | 40    | Conifer  |                     |       |       |       |     |       |               |
|      |      |      |         |       |                 |       |       | Hardwood | 1                   |       |       |       |     |       |               |
| 29   | LF   | 3    | HS      | 20    | 70              | 20    | 50    | Conifer  |                     |       | 1     |       |     |       |               |
|      |      |      |         |       |                 |       |       | Hardwood | 2                   |       |       |       |     |       |               |
| 29   | RT   | 1    | HT      | 14    | 85              | 10    | 60    | Conifer  |                     |       |       |       |     |       | TRANS.        |
|      |      |      |         |       |                 |       |       | Hardwood |                     |       |       | 2     |     |       |               |
| 29   | RT   | 2    | HT      | 1     | 85              | 10    | 50    | Conifer  |                     |       |       |       |     |       |               |
|      |      |      |         |       |                 |       |       | Hardwood | 5                   |       |       |       |     |       |               |

# Comment Summary

## Restoration Monitoring Sites 2006

MONITORING AREA: **2-MC**      SITE ID: **335**      **LONG PRAIRIE CREEK PRE-TX**

| UNIT# | TYPE | CHAN | DIST. (m) | COMMENTS | NOTE ESTIMATOR      | NOTE NUMERATOR |
|-------|------|------|-----------|----------|---------------------|----------------|
| 1     | LP   | 00   | 14.6      |          | VW = 62m            | T=13C, FISH    |
| 2     | SL   | 00   | 15.2      |          | H = 0.05            | H=0.1m         |
| 3     | DP   | 00   | 35.6      |          |                     | fish           |
| 5     | LP   | 00   | 54        |          |                     | FISH           |
| 7     | LP   | 00   | 82.3      |          | UNEVEN TERRACES     | FISH           |
| 9     | LP   | 00   | 126.9     |          |                     | FISH           |
| 10    | RI   | 01   | 152       | TJ/      | Rip #1              |                |
| 11    | RI   | 11   | 152       |          |                     | T=11C          |
| 12    | LP   | 00   | 185.1     | HS       | VW = 72m, HS        | FISH           |
| 13    | RI   | 00   | 202.1     |          |                     | FISH           |
| 14    | LP   | 01   | 241.2     | BC       | BC                  | FISH           |
| 15    | LP   | 02   | 241.2     |          | FORK UPSTREAM OF BC | FISH           |
| 16    | SL   | 00   | 243.8     | DJ       | H=1.0, DJ           | H=1.0m         |
| 17    | DP   | 00   | 251.7     |          |                     | FISH           |
| 18    | SL   | 00   | 252.1     |          | H=0.1M              | H=0.1m         |
| 20    | RI   | 00   | 280.2     |          | Rip #2              | Rip #2         |
| 21    | LP   | 00   | 299.1     |          | RLF, VW = 78m       | FISH           |
| 22    | SL   | 00   | 299.3     | DJ       | H=0.1m              | RLF, H=0.1m    |
| 24    | LP   | 00   | 342.4     |          |                     | FISH           |
| 25    | RI   | 00   | 356       | /SS      | /SS                 |                |
| 26    | LP   | 00   | 388.1     | /SS      | /SS                 |                |

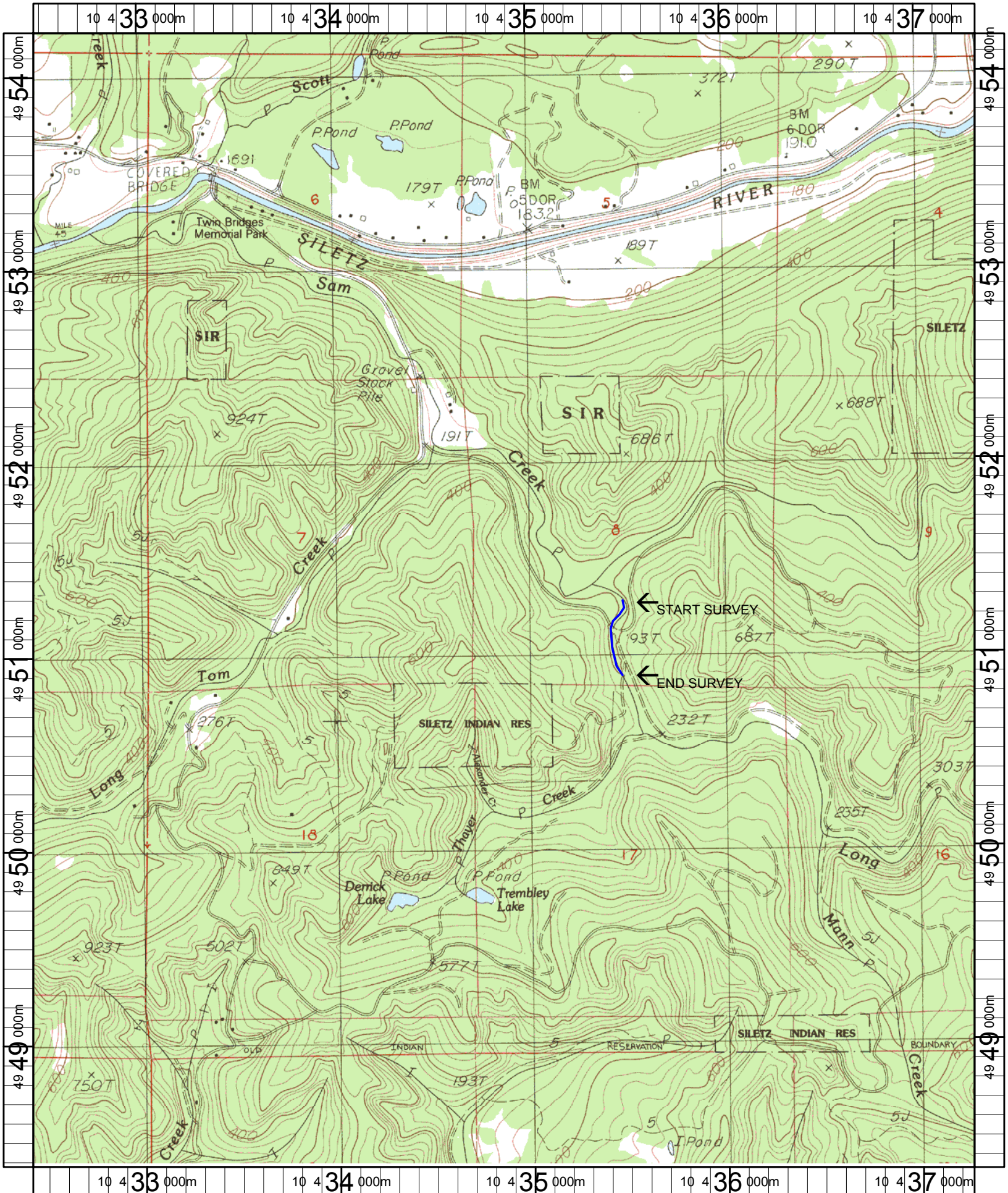
# Comment Summary

## Restoration Monitoring Sites 2006

MONITORING AREA: 2-MC      SITE ID: 335      LONG PRAIRIE CREEK PRE-TX

| <u>UNIT#</u> | <u>TYPE</u> | <u>CHAN</u> | <u>DIST. (m)</u> | <u>COMMENTS</u> | <u>NOTE ESTIMATOR</u> | <u>NOTE NUMERATOR</u> |
|--------------|-------------|-------------|------------------|-----------------|-----------------------|-----------------------|
| 27           | SC          | 00          | 394.7            | HS              | HS                    |                       |
| 28           | SP          | 00          | 423.7            |                 | CT/MT - D30           | FISH, Rip #3          |
| 29           | RI          | 00          | 439.6            |                 | Rip #3                |                       |
| 30           | GL          | 00          | 465.1            |                 | VW = 64m              |                       |
| 31           | GL          | 00          | 490.6            | HS              | HS                    | FISH                  |
| 33           | GL          | 00          | 523.1            |                 | END OF SURVEY         | END SURVEY @ 1330 HOU |





Name: EDDYVILLE  
 Date: 1/19/2006  
 Scale: 1 inch equals 2000 feet

Location: 10 434866 E 4951280 N  
 Caption: LONG PRAIRIE CREEK (#335) RESTORATION SITE - SILETZ BASIN