

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

STREAM: Sixes River Tributary (MS-192)
BASIN: Sixes River
SURVEY TYPE: Pre-Tx
DATE: March 23, 2006
SURVEY CREW: Scott Venables, Seth Ring
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 3.2 km³
USGS MAPS: Barklow Mountain
ECOREGION: Coast Range California Extension

GENERAL DESCRIPTION:

The Sixes River Tributary habitat survey extended 716 meters. The channel was constrained by terraces in a broad valley floor. The average valley width index was 16.0 (range: 15.0-20.0). Land use for the reach was young (3-15 cm dbh) and second growth (15-30 cm dbh) trees. The average unit gradient was 1.8 percent. Riffles (63%) and scour pools (27%) dominated stream habitat. Gravel (45%) and cobble (37%) dominated stream substrate. Wood volume was very low at 5.8 m³/100m.

COMMENTS:

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

REACH 1 T32S-R13W-S10SW 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 | 16.0 | VWI Range: | 15 - 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 Channel | 716 | 2,665 | 0 |
| Secondary Channel | 0 | 0 | 0 |
| Off-Channel Units | 49 | 43 | 0 |

Channel Dimensions (m)

| <u>Wetted</u> | <u>Active</u> | <u>Floodprone</u> n = 5 | <u>First Terrace</u> n = 5 |
|---------------|---------------|-------------------------|----------------------------|
| Width: 3.4 | Width: 7.4 | 14.7 (8.4 - 22.6) | 16.8 (9.7 - 25.6) |
| Depth: 0.34 | Height: 0.8 | 1.5 (1.5 - 1.6) | 2.0 (1.65 - 2.6) |

W:D ratio: 9.7 Entrenchment (ACW:FPW ratio): 2.1
 Stream Flow Type: MF Habitat Units/100m (total channel length): 6.8
 Average Unit Gradient: 1.8% Habitat Units/100m (primary channel length): 7.3
 Water temperature (°C): 9.0 - 9.0

Riparian, Bank, and Wood Summary

| | <u>Primary</u> | <u>Secondary</u> |
|----------------------|----------------|------------------|
| Land Use: | YT | ST |
| Riparian Vegetation: | D30 | D15 |

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): | 74 | 10.3 |
| Volume (m ³): | 41 | 5.8 |
| Key pieces (>=12m x 0.60m): | 0 | 0.0 |

OREGON DEPT OF FISH AND WILDLIFE SIXES RIVER UNNAMED TRIB PRE-TX (3-MS, 192)

HABITAT INVENTORY Report Date: 12/6/2006 Survey Date: 3/23/2006

| REACH 1 | | T32S-R13W-S10SW | | | | | 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 |
| CASCADE/BOULDERS | 2 | 13 | 0.5 | 0.03 | 7 | 0 | 5 | 8 | 55 | 25 | 0 | 8 |
| POOL-BACKWATER | 1 | 2 | 1.3 | 0.40 | 2 | 0 | 0 | 50 | 20 | 30 | 0 | 0 |
| POOL-ISOLATED | 1 | 10 | 1.4 | 0.30 | 13 | 0 | 10 | 30 | 20 | 40 | 0 | 0 |
| POOL-LATERAL SCOUR | 21 | 206 | 3.6 | 0.56 | 735 | 0 | 2 | 15 | 45 | 29 | 2 | 7 |
| RAPID/BOULDERS | 4 | 71 | 3.9 | 0.23 | 239 | 0 | 0 | 5 | 43 | 49 | 4 | 0 |
| RIFFLE | 23 | 464 | 3.6 | 0.18 | 1,712 | 0 | 0 | 8 | 47 | 43 | 2 | 0 |
| Total: | 52 | 765 | 3.4 | 0.34 | 2,708 | 0 | Avg: 1 | 12 | 45 | 37 | 2 | 3 |

| 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 | 2 | 11 | 1.4 | 0.35 | 15 | 0.57% | 0 | 0.0 | |
| Scour Pools | 21 | 206 | 3.6 | 0.56 | 735 | 27.14% | 0 | 0.0 | |
| Glides | 0 | 0 | | | 0 | 0.00% | 0 | 0.0 | |
| Riffles | 23 | 464 | 3.6 | 0.18 | 1,712 | 63.22% | 0 | 0.0 | |
| Rapids | 4 | 71 | 3.9 | 0.23 | 239 | 8.83% | 0 | 0.0 | |
| Cascades | 2 | 13 | 0.5 | 0.03 | 7 | 0.24% | 0 | 0.0 | |
| Step/Falls | 0 | 0 | | | 0 | 0.00% | 0 | 0.0 | |
| Dry | 0 | 0 | | | 0 | 0.00% | 0 | 0.0 | |
| Culverts | 0 | 0 | | | 0 | 0.00% | 0 | 0.0 | |

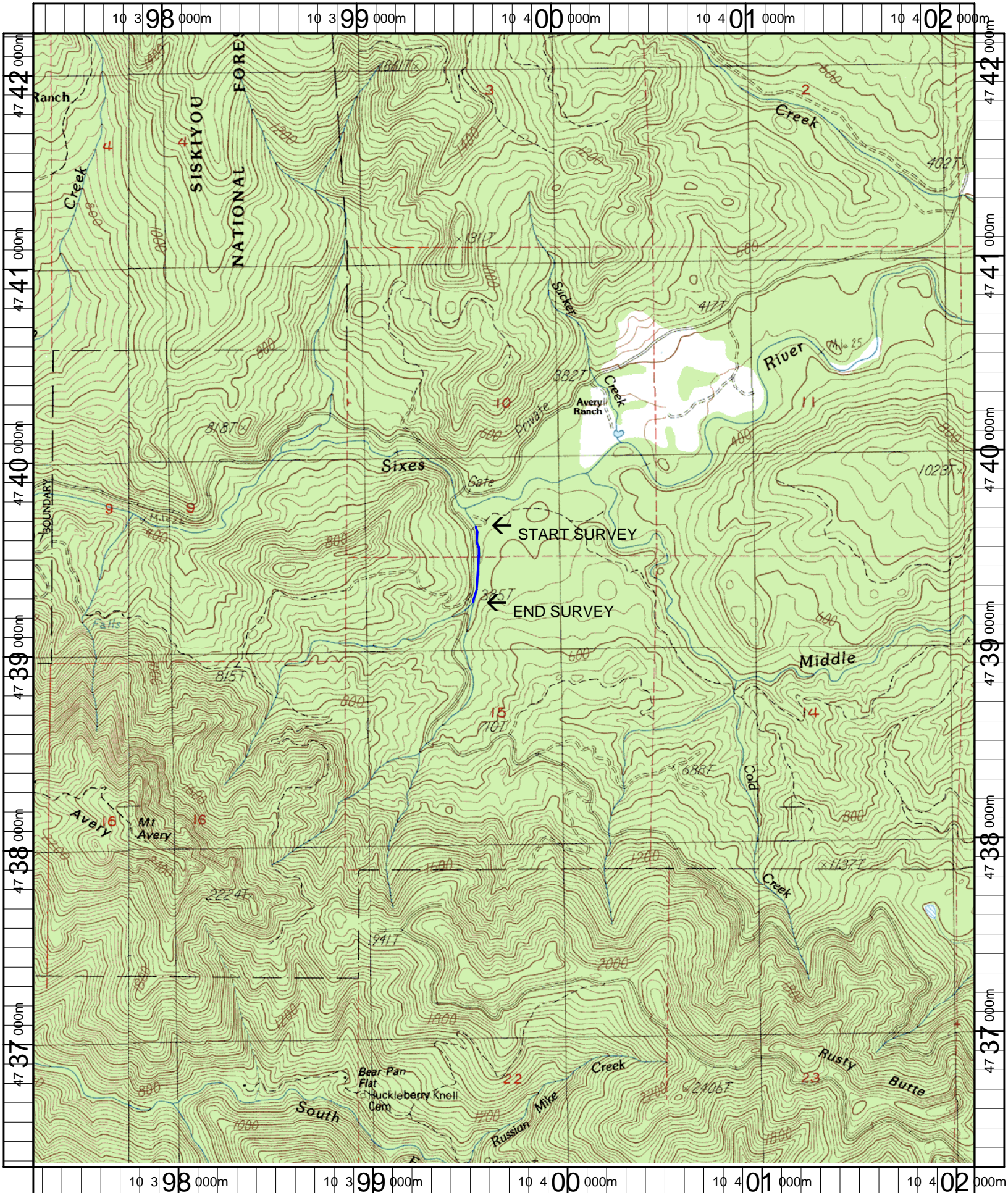
| POOL SUMMARY | | | |
|---------------------------------------|--------------|------------------------------|---|
| | <u>Total</u> | Total of all Channel Lengths | |
| | | <u># / Km</u> | Primary Channel Length <u># / Km</u> |
| All Pools: | 23 | 30.1 | 32.1 |
| Pools >=1m deep: | 0 | 0.0 | 0.0 |
| Complex pools (LWD pieces>=3): | 8 | 10.5 | 11.2 |
| Pool frequency (channel widths/pool): | 4.5 | | |
| Residual pool depth (avg): | 0.38 | | |

Comment Summary

Restoration Monitoring Sites 2006

MONITORING AREA: **3-MS** SITE ID: **192** **SIXES RIVER UNNAMED TRIB PRE-T**

| UNIT# | TYPE | CHAN | DIST. (m) | COMMENTS | NOTE ESTIMATOR | NOTE NUMERATOR |
|-------|------|------|-----------|----------|-----------------------------|----------------|
| 1 | RI | 00 | 30 | | T = 9.0 | |
| 8 | LP | 01 | 145.7 | TJ/, DJ | OLD ROAD-BRIDGE CROSSING | |
| 9 | RI | 11 | 145.7 | /TJ | ACW = 1.7, T = 8.5 | |
| 10 | CB | 11 | 145.7 | | ACW = 0.9, T = 8.5, HARDPAN | |
| 11 | LP | 11 | 145.7 | SS/ | | |
| 17 | LP | 00 | 198 | DJ | | |
| 21 | RI | 01 | 271.5 | /TJ | | |
| 22 | CB | 11 | 271.5 | | T = 10., ACW = 1.3 | |
| 24 | RI | 00 | 291 | /SS | | |
| 25 | LP | 00 | 295.8 | DJ | | |
| 27 | LP | 00 | 335.6 | SS/ | | |
| 28 | LP | 00 | 349.7 | /SS | | |
| 34 | RI | 01 | 406.2 | /TJ | | |
| 35 | RI | 11 | 406.2 | | 2 FISH, T = 10.0, ACW = 1.1 | |
| 37 | RI | 00 | 441.7 | SS/ | | |
| 46 | LP | 00 | 575.7 | DJ | | |
| 52 | RI | 00 | 716 | /SS, /TJ | | |



Name: BARKLOW MT (OR)
 Date: 2/15/2007
 Scale: 1 inch equals 2000 feet

Location: 10 0399714 E 4739258 N
 Caption: SIXES RIVER UNNAMED TRIB RESTORATION SITE - SIXES BASIN