

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

STREAM: Cherry Creek (MC-15)
BASIN: Alsea River
SURVEY TYPE: Pre-Tx
DATE: July 19, 2000
SURVEY CREW: LaNoah Babcock, Lisa Krentz
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 4.4 km²
USGS MAPS: Five Rivers
ECOREGION: Coast Range Sedimentary

GENERAL DESCRIPTION:

The Cherry Creek habitat survey extended 484 meters. The channel was constrained by terraces in a broad valley floor. The average valley width index was 6.6 (range: 5.0 – 8.0). Land use for the reach was second growth (15-30 cm dbh) trees and agriculture. The average unit gradient was 1.5 percent. Slackwater pools (38%) and scour pools (33%) dominated stream habitat. Bedrock (28%) and fines (26%) dominated stream substrate. Wood volume was low at 7.7 m³/100m.

COMMENTS:

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

REACH 1

T14S-R10W-36SE

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 avg: 6.6 range: 5.0-8.0

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 | 484 | 2,573 | 0 |
| Secondary | 37 | 44 | 0 |

Channel Dimensions (m)

| <u>Wetted</u> | | <u>Active</u> | | <u>Floodprone</u> | <u>First Terrace</u> |
|---------------|------|---------------|------|-------------------|----------------------|
| Width | 4.7 | Width | 6.0 | 10.4 | 9.3 |
| Depth | 0.33 | Height | 0.5 | 0.9 | 1.5 |
| | | W:D ratio | 13.3 | Entrenchment | 1.8 |

Stream Flow Type: MF Water Temp: 12.0-12.0°C
 Avg. Unit Gradient: 1.5% Habitat Units/100m: 8.6

Riparian, Bank, and Wood Summary

| | <u>Primary</u> | <u>Secondary</u> |
|----------------------|----------------|------------------|
| Land Use: | ST | AG |
| Riparian Vegetation: | D15 | P |

Bank Condition and Shade

| <u>Bank Status</u> | <u>Percent Reach Length</u> | <u>Shade (% of 180)</u> |
|--------------------|-----------------------------|-------------------------|
| Actively Eroding | 0% | Reach avg: 70% |
| Undercut Banks | 24% | Range: 42-100 |

Large Woody Debris

| | <u>Total</u> | <u>Total/100m</u> |
|--------------------------|--------------|-------------------|
| All pieces (≥3m x 0.15m) | 49 | 10.1 |
| Volume (m ³) | 37 | 7.7 |
| Key pieces (≥10m x 0.6m) | 0 | 0.0 |

REACH 1

T14S-R10W-36SE

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 |
| POOL-BACKWATER | 2 | 10 | 0.7 | 0.20 | 8 | 0 | 75 | 20 | 5 | 0 | 0 | 0 |
| POOL-BEAVER DAM | 3 | 99 | 8.1 | 0.83 | 827 | 0 | 20 | 22 | 33 | 23 | 0 | 2 |
| POOL-DAMMED | 2 | 30 | 5.3 | 0.63 | 162 | 0 | 39 | 29 | 24 | 2 | 0 | 5 |
| POOL-LATERAL SCOUR | 12 | 184 | 4.3 | 0.58 | 783 | 14 | 11 | 19 | 24 | 12 | 2 | 32 |
| POOL-PLUNGE | 2 | 15 | 5.4 | 0.45 | 80 | 10 | 10 | 2 | 5 | 0 | 1 | 82 |
| RIFFLE | 5 | 84 | 3.8 | 0.16 | 320 | 4 | 9 | 24 | 39 | 23 | 1 | 4 |
| RIFFLE W/ POCKETS | 4 | 56 | 3.8 | 0.31 | 214 | 0 | 6 | 11 | 20 | 36 | 0 | 26 |
| STEP/BEAVER DAM | 3 | 2 | 5.7 | 0.02 | 12 | 0 | 100 | 0 | 0 | 0 | 0 | 0 |
| STEP/BEDROCK | 6 | 28 | 4.8 | 0.09 | 135 | 0 | 2 | 1 | 2 | 3 | 0 | 92 |
| STEP/COBBLE | 2 | 8 | 5.0 | 0.05 | 39 | 0 | 3 | 8 | 20 | 70 | 0 | 0 |
| STEP/LOG | 4 | 7 | 6.0 | 0.04 | 39 | 0 | 88 | 5 | 5 | 3 | 0 | 0 |
| Total: | 45 | 522 | 4.7 | 0.33 | 2,618 | 28 | Avg:26 | 13 | 18 | 14 | 1 | 28 |

HABITAT SUMMARY

| Habitat Group | No. Units | Total Length (m) | Avg Width (m) | Avg Depth (m) | Wetted Area (m ²) | Percent | Large Number | Boulders #/100m ² |
|-------------------|--------------|------------------------|---------------------|---------------------|----------------------------------|---------|-----------------|---------------------------------|
| Dammed & BW Pools | 7 | 139 | 5.2 | 0.59 | 996 | 38.06 | 0 | 0.0 |
| Scour Pools | 14 | 198 | 4.4 | 0.56 | 863 | 32.96 | 24 | 2.8 |
| Glides | 0 | 0 | - | - | 0 | 0.00 | 0 | 0.0 |
| Riffles | 9 | 140 | 3.8 | 0.23 | 534 | 20.39 | 4 | 0.7 |
| Rapids | 0 | 0 | - | - | 0 | 0.00 | 0 | 0.0 |
| Cascades | 0 | 0 | - | - | 0 | 0.00 | 0 | 0.0 |
| Step/Falls | 15 | 44 | 5.3 | 0.06 | 225 | 8.58 | 0 | 0.0 |
| Dry | 0 | 0 | - | - | 0 | 0.00 | 0 | 0.0 |

POOL SUMMARY

| | | |
|---------------------------------------|--------------|-------------|
| All Pools | <u>Total</u> | <u>#/Km</u> |
| | 21 | 40.3 |
| Pools ≥1m deep: | 0 | 0.0 |
| Complex pools (LWD pieces ≥3): | 3 | 5.8 |
| Pool Frequency (channel widths/pool): | 4.1 | |
| Residual pool depth (avg) | 0.51m | |

STREAM SUMMARY

CHERRY CREEK (PRE-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 | |
| 45 | 522 | 4.7 | 0.33 | 2,618 | 26 | 13 | 18 | 14 | 1 | 28 | 28 |

Wetted Area

| Habitat Group | (m ²) | Percent |
|-----------------|-------------------|---------|
| Scour Pool | 863 | 33.0 |
| Backwater Pools | 996 | 38.1 |
| Glide | 0 | 0.0 |
| Riffle | 534 | 20.4 |
| Rapid | 0 | 0.0 |
| Cascade | 0 | 0.0 |
| Step | 225 | 8.6 |
| Dry | 0 | 0.0 |

REACH 1

RIPARIAN ZONE VEGETATION SUMMARY

REACH 1

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

| | |
|---------------------------------|-----|
| Total hardwoods/1000 ft | 488 |
| Total conifers/1000 ft | 122 |
| 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 0-10 meters | | Zone 2 10-20 meters | | Zone 3 20-30 meters | | Zones 1-3 0-30 meters | |
|-------------------------|-----------------------|----------|------------------------|----------|------------------------|----------|--------------------------|----------|
| | Conifer | Hardwood | Conifer | Hardwood | Conifer | Hardwood | Conifer | Hardwood |
| 3-15cm | 0.3 | 1.0 | 0.0 | 2.3 | 1.7 | 4.0 | 2.0 | 7.3 |
| 15-30cm | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 30-50cm | 0.0 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 |
| 50-90cm | 0.0 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 |
| >90cm | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total/100m ² | 0.3 | 1.7 | 0.0 | 2.3 | 1.7 | 4.0 | 0.7 | 2.7 |

Canopy closure and ground cover

| | Zone 1 0-10 meters | | Zone 2 10-20 meters | | Zone 3 20-30 meters | |
|------------------|-----------------------|--|------------------------|--|------------------------|--|
| | (%) | | (%) | | (%) | |
| Canopy closure | 30 | | 37 | | 30 | |
| Shrub cover | 18 | | 31 | | 24 | |
| Grass/forb cover | 80 | | 65 | | 59 | |

Predominant landform in each zone

| | Zone 1 0-10 meters | | Zone 2 10-20 meters | | Zone 3 20-30 meters | |
|-------------------|-----------------------|----|------------------------|-----|------------------------|----|
| | Hillslope | 67 | | 100 | | 67 |
| High terrace | 0 | | 0 | | 0 | |
| Low terrace | 33 | | 0 | | 0 | |
| Floodplain | 0 | | 0 | | 0 | |
| Wetland/meadow | 0 | | 0 | | 0 | |
| Stream channel | 0 | | 0 | | 0 | |
| Roadbed/Railroad | 0 | | 0 | | 33 | |
| Riprap | 0 | | 0 | | 0 | |
| Surface slope (%) | 9 | | 28 | | 18 | |

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

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

| | |
|---------------------------------|-----|
| Total hardwoods/1000 ft | 488 |
| Total conifers/1000 ft | 122 |
| Total conifers >20" dbh/1000 ft | 0 |

Average number of trees in a 5-meter wide band

| <u>Diameter</u> <u>class (cm)</u> | <u>Zones 1-3</u> | |
|--------------------------------------|------------------|-----------------|
| | <u>Conifer</u> | <u>Hardwood</u> |
| 3-15cm | 2.0 | 7.3 |
| 15-30cm | 0.0 | 0.0 |
| 30-50cm | 0.0 | 0.3 |
| 50-90cm | 0.0 | 0.3 |
| >90cm | 0.0 | 0.0 |

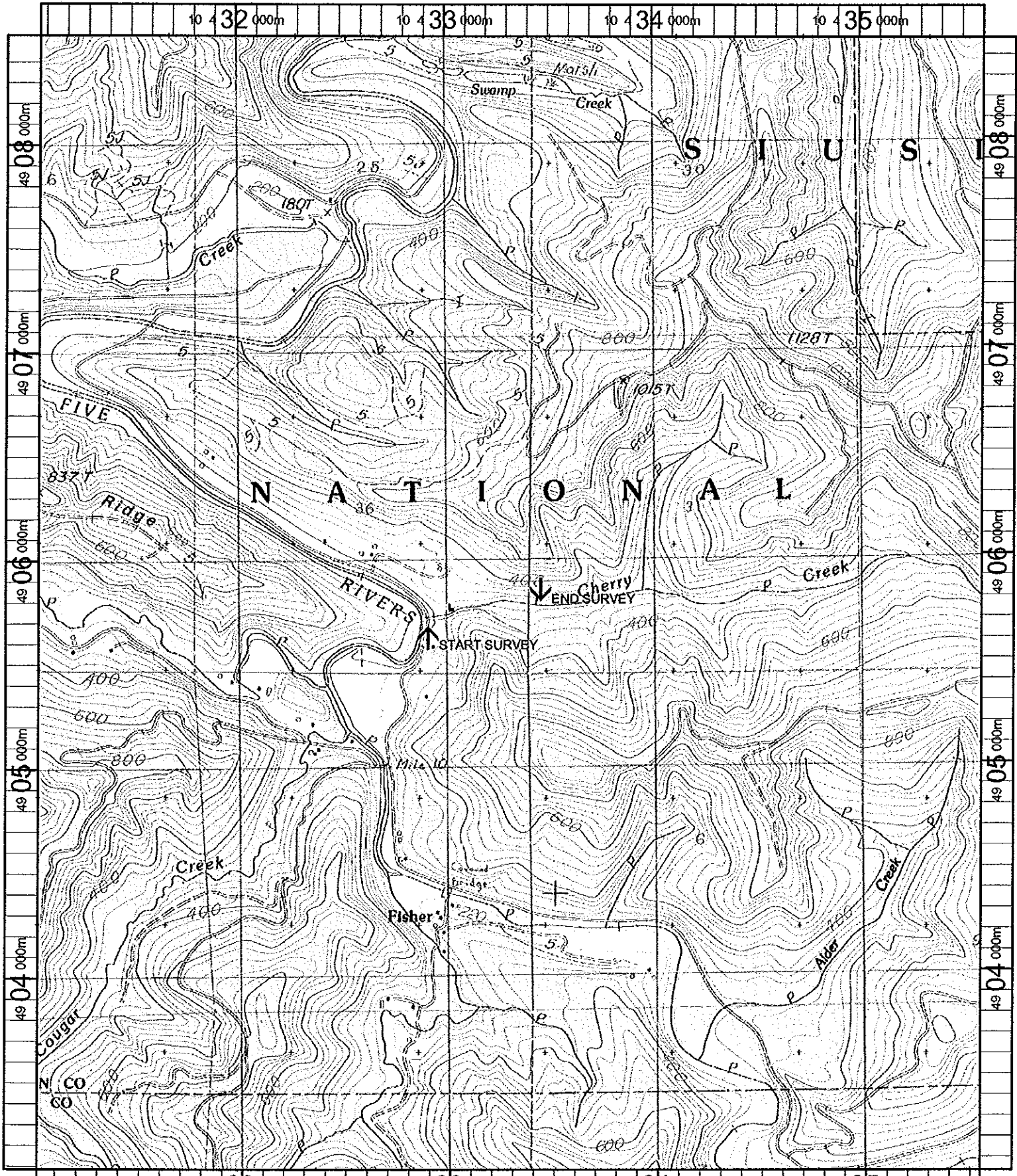
RIPARIAN ZONE VEGETATION

Reach 1

Reach 1

VEGETATION DETAIL

| Unit | Side | Zone | Surface | Slope | Cover (percent) | | | | Diameter class (cm) | | | | | Notes |
|------|------|------|---------|-------|-----------------|-------|-------|----------|---------------------|-------|-------|-------|-----|---------------------|
| | | | | | Canopy | Shrub | Grass | | 3-15 | 15-30 | 30-50 | 50-90 | >90 | |
| 15 | LF | 1 | HS | 5.0 | 0 | 0 | 100 | Conifer | 0 | 0 | 0 | 0 | 0 | |
| | | | | | | | | Hardwood | 0 | 0 | 0 | 0 | 0 | |
| 15 | LF | 2 | HS | 5.0 | 0 | 0 | 100 | Conifer | 0 | 0 | 0 | 0 | 0 | |
| | | | | | | | | Hardwood | 0 | 0 | 0 | 0 | 0 | |
| 15 | LF | 3 | HS | 15.0 | 0 | 5 | 95 | Conifer | 0 | 0 | 0 | 0 | 0 | |
| | | | | | | | | Hardwood | 3 | 0 | 0 | 0 | 0 | |
| 15 | RT | 1 | LT | 0.0 | 5 | 10 | 90 | Conifer | 0 | 0 | 0 | 0 | 0 | |
| | | | | | | | | Hardwood | 1 | 0 | 0 | 0 | 0 | ELDERBERRY |
| 15 | RT | 2 | HS | 65.0 | 10 | 100 | 0 | Conifer | 0 | 0 | 0 | 0 | 0 | |
| | | | | | | | | Hardwood | 0 | 0 | 0 | 0 | 0 | |
| 15 | RT | 3 | RB | 0.0 | 20 | 40 | 10 | Conifer | 0 | 0 | 0 | 0 | 0 | |
| | | | | | | | | Hardwood | 0 | 0 | 0 | 0 | 0 | |
| 23 | LF | 1 | HS | 10.0 | 0 | 10 | 90 | Conifer | 0 | 0 | 0 | 0 | 0 | |
| | | | | | | | | Hardwood | 1 | 0 | 0 | 0 | 0 | |
| 23 | LF | 2 | HS | 20.0 | 10 | 30 | 70 | Conifer | 0 | 0 | 0 | 0 | 0 | |
| | | | | | | | | Hardwood | 3 | 0 | 0 | 0 | 0 | |
| 23 | LF | 3 | HS | 60.0 | 0 | 25 | 75 | Conifer | 5 | 0 | 0 | 0 | 0 | |
| | | | | | | | | Hardwood | 0 | 0 | 0 | 0 | 0 | DOUG FIR |
| 23 | RT | 1 | LT | 0.0 | 40 | 20 | 70 | Conifer | 0 | 0 | 0 | 0 | 0 | |
| | | | | | | | | Hardwood | 0 | 0 | 0 | 0 | 0 | |
| 23 | RT | 2 | HS | 50.0 | 95 | 20 | 60 | Conifer | 0 | 0 | 0 | 0 | 0 | |
| | | | | | | | | Hardwood | 0 | 0 | 0 | 0 | 0 | |
| 23 | RT | 3 | RB | 0.0 | 60 | 10 | 40 | Conifer | 0 | 0 | 0 | 0 | 0 | |
| | | | | | | | | Hardwood | 0 | 0 | 0 | 0 | 0 | |
| 37 | LF | 1 | HS | 20.0 | 40 | 60 | 40 | Conifer | 0 | 0 | 0 | 0 | 0 | |
| | | | | | | | | Hardwood | 0 | 0 | 0 | 0 | 0 | |
| 37 | LF | 2 | HS | 10.0 | 10 | 30 | 70 | Conifer | 0 | 0 | 0 | 0 | 0 | |
| | | | | | | | | Hardwood | 2 | 0 | 0 | 0 | 0 | ALDER |
| 37 | LF | 3 | HS | 15.0 | 0 | 60 | 40 | Conifer | 0 | 0 | 0 | 0 | 0 | |
| | | | | | | | | Hardwood | 0 | 0 | 0 | 0 | 0 | OLD GROWTH IN 5 MOR |
| 37 | RT | 1 | HS | 20.0 | 95 | 5 | 90 | Conifer | 1 | 0 | 0 | 0 | 0 | |
| | | | | | | | | Hardwood | 1 | 0 | 1 | 1 | 0 | D. FIR, BL MAPLE, A |
| 37 | RT | 2 | HS | 20.0 | 95 | 5 | 90 | Conifer | 0 | 0 | 0 | 0 | 0 | |
| | | | | | | | | Hardwood | 2 | 0 | 0 | 0 | 0 | ALDER |
| 37 | RT | 3 | HS | 20.0 | 100 | 5 | 95 | Conifer | 0 | 0 | 0 | 0 | 0 | |
| | | | | | | | | Hardwood | 9 | 0 | 0 | 0 | 0 | ALDER |



Name: FIVE RIVERS
 Date: 11/1/100
 Scale: 1 Inch equals 2000 feet

Location: 10 433206 E 4905768 N
 Caption: CHERRY CREEK RESTORATION SITE - ALSEA BASIN