**STREAM INVENTORY REPORT**

**Tributary #2, Steelhead Creek**

WATERSHED OVERVIEW

Refer to the map of Steelhead Creek for the location of Tributary #2, Steelhead Creek.

Tributary #2, Steelhead Creek is tributary to Steelhead Creek, tributary to the Eel River, located in Humboldt County, California. Steelhead Creek's legal description at the confluence with the Eel River is T03S R05E S29. Its location is 40°10'18" N. latitude and 123°41'00" W. longitude. Tributary #2, Steelhead Creek is an ephemeral stream according to the USGS Fort Seward and Harris 7.5 minute quadrangles. Tributary #2, Steelhead Creek drains a watershed of approximately 0.9 square miles. Summer base runoff is approximately 0.1 cubic feet per second (cfs) at the mouth. Elevations range from about 880 feet at the mouth of the creek to 3,300 feet in the headwater areas. Mixed conifer forest dominates the watershed. The watershed is entirely privately owned and is managed for timber production and rural residence. Vehicle access exists via Steelhead Road from the town of Alderpoint. Contact the landowner for permission to enter and for more explicit directions to the mouth of Tributary #2 of Steelhead Creek.

HABITAT INVENTORY RESULTS AND DISCUSSION

The habitat inventory of October 24, 1996, was conducted by Frank Humphrey (PCFWWRA) and Dale Melton (CCC/WSP/AmeriCorps). The total length of the stream surveyed was 327 feet.

Flows were not measured on Tributary #2, Steelhead Creek.

Tributary #2, Steelhead Creek is an A2 channel type for the entire 327 feet of stream surveyed. The suitability of A2 channel types for fish habitat improvement structures is described in the Steelhead Creek report.

The water temperatures recorded on the survey day October 24, 1996, ranged from 55 to 56° Fahrenheit. Air temperatures ranged from 60 to 61° F. This is a good water temperature range for salmonids. To make any further conclusions, temperatures would need to be monitored throughout the warm summer months, and more extensive biological sampling would need to be conducted.

Flatwater habitat types comprised 46% of the total **length** of this survey, riffles 63%, and pools 25%. The pools are relatively shallow, with only one of the three pools having a maximum depth greater than 2 feet. Primary pool criteria are discussed in the

main body of this report.
None of the three pool tail-outs measured had embeddedness ratings of 3 or 4. One had a 1 rating. Cobble embeddedness measured to be 25% or less, a rating of 1, is considered best for the needs of salmon and steelhead.

The mean shelter rating for pools was low with a rating of 20. The shelter rating in the flatwater habitats was slightly higher at 25. A pool shelter rating of approximately 100 is desirable. The relatively small amount of cover that now exists is being provided primarily by boulders in all habitat types. Log and root wad cover structures in the pool and flatwater habitats are needed to improve both summer and winter salmonid habitat.

All of the low gradient riffles had boulders as the dominant substrate. This is generally considered unsuitable for spawning salmonids.

The mean percent canopy for the stream was 49%. This is a relatively moderate percentage of canopy, since 80 percent is generally considered optimum in these north coast streams.

The percentage of right and left bank covered with vegetation was moderate at 57% and 71%, respectively. In areas of stream bank erosion or where bank vegetation is not at acceptable levels, planting endemic species of coniferous and deciduous trees, in conjunction with bank stabilization, is recommended.

Steelhead were observed through unit 0011. At that point, access for anadromous fish is blocked by boulder roughs and a very steep stream channel.

## BIOLOGICAL INVENTORY RESULTS

Young-of-the-year steelhead rainbow trout were observed on October 24, 1996, in Tributary #2 of Steelhead Creek.

## RECOMMENDATIONS

1) Tributary #2, Steelhead Creek should be managed as an anadromous, natural production stream.

2) Where feasible, design and engineer pool enhancement structures to increase the number of pools. This must be done where the banks are stable or in conjunction with stream bank armor to prevent erosion.

3) Increase woody cover in the pools and flatwater habitat units. Most of the existing cover is from boulders. Adding high quality complexity with woody cover is desirable and in some areas the material is at hand.

4) Due to the high gradient of the stream, access for migrating

salmonids is an ongoing potential problem. Good water temperature and flow regimes exist in the stream and it offers good conditions for rearing fish. Fish passage should be monitored and improved where possible.

PROBLEM SITES AND LANDMARKS

The following landmarks and possible problem sites were noted. All distances are approximate and taken from the beginning of the survey reach.

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| 0' | Begin survey at confluence with Steelhead Creek. Channel type is an A2 for the entire 327' of stream surveyed. |
| 272' | Young-of-the-year (YOY) steelhead rainbow trout were observed by surveyors. |
| 327' | Stream channel gets very steep and full of large boulders. No more fish habitat. End of anadromy. End of survey. |