STREAM INVENTORY REPORT

Unnamed Creek

WATERSHED OVERVIEW

Refer to the map of Bloody Run Creek for the location of Unnamed Creek.

Unnamed Creek is tributary to Bloody Run Creek, tributary to Outlet Creek, located in Mendocino County, California. Unnamed Creek's legal description at the confluence with Bloody Run Creek is T20N R13W S18. Its location is 39°35'11" N. latitude and 123°21'15" W. longitude. Unnamed Creek is an ephemeral stream according to the USGS Willis Ridge 7.5 minute quadrangle. Unnamed Creek drains a watershed of approximately 3.2 square miles. Elevations range from about 1300 feet at the mouth of the creek to 2500 feet in the headwater areas. Mixed conifer forest dominates the watershed, with hardwoods as a secondary component. The watershed is entirely privately owned and is managed for rangeland and private residence. Vehicle access exists via Highway 162 to mile marker 6.68.

HABITAT INVENTORY RESULTS AND DISCUSSION

The habitat inventory of September 9, 1995, was conducted by Brie Darr and Jennifer Terwilliger (CCC/WSP/AmeriCorps). The total length of the stream surveyed was 2,502 feet.

Flows were not measured on Unnamed Creek.

Unnamed Creek is a B3 channel type for the entire 2,502 feet of stream surveyed. The suitability of B3 channel types for fish habitat improvement structures is described in the main body of this report.

The water temperatures recorded on the survey day September 9, 1995, ranged from 60 to 65 degrees Fahrenheit. Air temperatures ranged from 74 to 89 degrees Fahrenheit. This is a relatively warm 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 33% of the total **length** of this survey, riffles 40%, and pools 21%. The pools are relatively shallow, with only six of the 30 pools having a

maximum depth greater than 2 feet. Primary pool criteria are discussed in the main body of this report.

Seven of the 30 pool tail-outs measured had embeddedness ratings of 3 or 4. Three 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. In Unnamed Creek, sediment sources should be mapped and rated according to their potential sediment yields, and control measures should be taken.

The mean shelter rating for pools was low with a rating of 13. The shelter rating in the flatwater habitats was slightly lower at 8. 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 three low gradient riffles had large cobble or boulders as the dominant substrate. This is generally considered unsuitable for spawning salmonids.

The mean percent canopy for the stream was 70%. This is a relatively high 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 24% and 25%, 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.

No steelhead were observed upstream of unit 033, 513' above the confluence with Bloody Run Creek, a group of large boulders appears to impede further passage.

BIOLOGICAL INVENTORY RESULTS

No bioinventory was conducted on Unnamed Creek during the field season of 1995.

RECOMMENDATIONS

1) Unnamed 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) Temperatures in this section of Unnamed Creek, as well as upstream, should be monitored to determine if they are having a deleterious effect upon juvenile salmonids. To achieve this, biological sampling is also required.

5) Increase the canopy on Unnamed Creek by planting willow, alder, and Douglas fir along the stream where shade canopy is not at acceptable levels. The reaches above this survey section should be inventoried and treated as well, since the water flowing here is effected from upstream. In many cases, planting will need to be coordinated to follow bank stabilization or upslope erosion control projects.

6) There are several log debris accumulations present on Unnamed Creek that are retaining large quantities of fine sediment. The modification of these debris accumulations is desirable, but must be done carefully, over time, to avoid excessive sediment loading in downstream reaches.

7) There is at least one section where the stream is being impacted from cattle trampling the riparian zone and defecating in the water. Alternatives should be explored with the grazier and developed if possible.

8) 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.

0' Begin survey at confluence with Bloody Run Creek. Channel type is a B3 for entire 2,502 feet of stream surveyed.

49' Evidence of cattle grazing in stream.

80' Begin fractional sample survey.

105' Several young-of-the-year (YOY) steelhead/rainbow trout observed.

513' Change in elevation of streambed, approximately 23 foot drop within 70 diagonal feet. Gravel and cobble collected between bedrock and large boulders, creating a dry unit. Possible barrier to migration.

722' Evidence of cattle grazing in stream.

890' No fish observed since possible barrier.

1093' Large debris accumulation (LDA), approximately 12' long x 5' wide x 3' high.

1647' Old car bridge - falling down, not usable.

2502' No fish observed since possible barrier. End of survey.