STREAM INVENTORY REPORT

Unnamed Tributary to West Side Creek

WATERSHED OVERVIEW

The unnamed tributary is a tributary to West Side Creek, a tributary to Bear River, which drains to the Pacific Ocean. It is located in Humboldt County, California (Map 1). The unnamed tributary's legal description at the confluence with West Side Creek is T01N R02W S13. Its location is 40.4664 degrees north latitude and 124.2411 degrees west longitude. The unnamed tributary is a second order stream according to the USGS Capetown 7.5 minute quadrangle. The unnamed tributary drains a watershed of approximately 1.0 square mile. Elevations range from about 480 feet at the mouth of the creek to 2,200 feet in the headwater areas. Mixed conifer forest dominates the watershed. The watershed is entirely privately owned and is managed for timber production and rangeland.

HABITAT INVENTORY RESULTS AND DISCUSSION

The habitat inventory of August 1, 1996 was conducted by Bill Malinowski (WSP\AmeriCorps) and Craig Mesman (CCC). The total length of the stream surveyed was 1,439 feet with an additional 57 feet of side channel.

Flow was measured at the bottom of the survey reach with a Marsh-McBirney Model 2000 flowmeter at 0.02 cfs on August 30, 1996.

The unnamed tributary to West Side Creek is an A2 channel type for the entire 1,439 feet of stream surveyed. A2 channels are steep, narrow, cascading, step-pool streams, with high energy/debris transport associated with depositional soils, and a boulder channel. A2 channels are generally not suitable for fish habitat improvement structures.

The water temperatures recorded on the survey day, August 1, 1996, ranged from 58 to 62 degrees Fahrenheit. Air temperatures ranged from 58 to 70 degrees Fahrenheit. This is a good water temperature range for salmonids, but complete water temperature data during the warm summer months are lacking. For a more complete and accurate water temperature profile, 24-hour temperatures need to be monitored throughout the warm summer months.

Based on the total length of this survey, Level II habitat units consisted of 85% flatwater units, 12% pool units, and 1% riffle units. The pools are relatively shallow, with none of the pools having a maximum depth greater than two feet.

None of the seven pool tail-outs measured had embeddedness ratings of 3, 4 or 5. Five had embeddedness ratings of 1. Cobble embeddedness of 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 33. The shelter rating in the flatwater habitats was 20. A pool shelter rating of approximately 100 is desirable. Log and root wad cover structures in the pool and flatwater habitats are needed to improve both summer and winter

salmonid habitat.

The three step runs measured had boulders as the dominant substrate. This is poor for spawning salmonids.

The mean percent canopy density for the stream was 70%. This is a moderate percentage of canopy. In general, revegetation projects are considered when canopy density is less than 80%.

The percentage of right and left bank covered with vegetation was moderate at 56% and 76%, respectively. In areas of stream bank erosion or where bank vegetation is at unacceptable levels, planting endemic species of coniferous and deciduous trees, in conjunction with bank stabilization, is recommended.

BIOLOGICAL INVENTORY RESULTS

One site was electrofished on October 7, 1996. The units were sampled by Bill Malinowski and David Jones (CCC).

The site sampled included Habitat Units #001 through #003, a step run, plunge pool and a step run, beginning at the confluence with West Side Creek. The site yielded 18 steelhead/rainbow trout.

RECOMMENDATIONS

1) The unnamed tributary to West Side Creek should be managed as an anadromous, natural production stream.

2) The limited water temperature available suggest that the maximum temperatures are within the acceptable range for juvenile salmonids. To establish more complete and meaningful temperature regime information, 24-hour monitoring during the July and August temperature extreme period should be performed for 3 to 5 years.

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.

4) Inventory and map sources of stream bank erosion and prioritize them according to present and potential sediment yield. Identified sites should then be treated to reduce the amount of fine sediments entering the stream.

5) Increase the canopy on the unnamed tributary by planting willow, alder, redwood, and Douglas fir along the stream where shade canopy is at unacceptable levels. The reaches above this survey section should be inventoried and treated as well, since the water flowing here is affected from upstream. In many cases, planting will need to be coordinated to follow bank stabilization or upslope erosion control projects.

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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.

Position (ft):	Comments:
0'	Start of survey at confluence with West Side Creek. Channel type is an A2.
176'	Left bank erosion site measures 70' long x 50' high.
1,000'	Channel constricted by a left bank slide.
1,019'	Left bank erosion site measures 90' long x 60' high and is contributing “blue goo” to the channel.
1,439'	End of survey. No fish observed since the channel constriction at 1000'.