STREAM INVENTORY REPORT

Hungry Hollow Creek

WATERSHED OVERVIEW

Hungry Hollow Creek is tributary to Mill Creek, tributary to Navarro River, tributary to the Pacific Ocean located in Mendocino County, California (Map 1). Hungry Hollow Creek's legal description at the confluence with Mill Creek is T15N R14W S30. Its location is 39°07′49″ north latitude and 123°27′25″ west longitude. Hungry Hollow Creek is an ephemeral stream according to the USGS Bailey Ridge 7.5 minute quadrangle. Hungry Hollow Creek drains a watershed of approximately 1.7 square miles. Summer base runoff is approximately 0.09 cubic feet per second (cfs) at the mouth. Elevations range from about 550 feet at the mouth of the creek to 950 feet in the headwater areas. Mixed conifer forest dominates the watershed. The watershed is entirely privately owned. Vehicle access exists via Nash Mill Road.

HABITAT INVENTORY RESULTS AND DISCUSSION

The habitat inventory of August 12, 1998, was conducted by Paul Retherford and Dana McCracken (WSP\AmeriCorps). The total length of the stream surveyed was 1,972 feet with 11 feet of side channel.

Flow was estimated to be 0.09 cfs during the survey period.

Hungry Hollow Creek is an F3 channel type for the entire 1,972 feet of stream surveyed. F3 channel types are entrenched riffle/pool channels on low gradients with a high width/depth ratio and a cobble channel. The suitability of F3 channel types for fish habitat improvement structures is as follows: good for bank-placed boulders, and single and opposing wing-deflectors; and fair for weirs, boulder clusters, channel constrictors and log cover.

The water temperatures recorded on the survey day August 12, 1998, ranged from 62 to 74 degrees Fahrenheit. Air temperatures ranged from 73 to 86 degrees Fahrenheit. This is a poor water temperature range for salmonids. For a more complete and accurate water temperature profile 24-hour temperatures would need to be monitored throughout the warm summer months.

Based on the total length of this survey, Level II habitat units consisted of 70% flatwater units, 11% pool units, and 10% riffle units. The pools are relatively shallow, with only 6 of the 12 pools having a maximum depth greater than 2 feet.

Five of the 12 pool tail-outs measured had embeddedness ratings of 3 or 4. Zero had a 1 rating. Cobble embeddedness of 25% or less, a rating of 1, is considered best for the needs of salmon and steelhead. In Hungry Hollow 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 107. The shelter rating in the flatwater habitats was 8. A pool shelter rating of approximately 100 is desirable.

All of the twelve pool tail-outs measured had gravel or small cobble as the dominant substrate. This is generally considered good for spawning salmonids.

The mean percent canopy density for the stream was 68%. The percentage of right and left bank covered with vegetation was 36% and 52%, 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 or sampled upstream of habitat unit number 42, 1,972' above the confluence with Mill Creek, where a 25' waterfall appears to impede passage.

BIOLOGICAL INVENTORY RESULTS

One site was electrofished on August 19, 1998 in Hungry Hollow Creek. The site was sampled by Paul Retherford and Tristan Behm (WSP\AmeriCorps).

The site sampled included habitat units 37-38, a series of pools, runs, and a riffle 1,771 feet from the confluence with Hungry Hollow Creek. This site had an approximate length of 49 feet. The site yielded eight steelhead.

RECOMMENDATIONS

1) Hungry Hollow Creek should be managed as an anadromous, natural production stream.

2) The limited water temperature available suggest that the maximum temperatures are not within the acceptable range for juvenile steelhead rainbow trout. To establish a 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 the canopy on Hungry Hollow Creek by planting willow, alder, redwood, 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 affected from upstream.

COMMENTS 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 Mill Creek.
298'	Flow taken, 0.09 cfs.
701'	Root wad retaining 6' gravel with a 3' plunge; passable.
777'	Right bank failure, 35' long x 40' high; contributing wood and gravel.
1,106'	Right bank tributary; <0.01 cfs, 60 degrees F, no fish observed for 100 feet.
1,678'	Right bank dry tributary; steep, not accessible to fish.
1,771'	Electrofishing site.
1,972'	End of survey. There is a 25' jump that impedes the passage of anadromous fish. It is completely bedrock and extremely steep. Many salmonids observed in the jump pool below.