

STREAM INVENTORY REPORT Unnamed Tributary to Jacoby Creek

WATERSHED OVERVIEW

Refer to the map of Jacoby Creek for the location of this unnamed tributary.

The unnamed tributary flows into Jacoby Creek, tributary to Arcata Bay, tributary to Mad River Slough, which empties into the Pacific Ocean, located in Humboldt County, California. The unnamed tributary's legal description at the confluence with Jacoby Creek is T05N R01E S14. Its location is 40.8144° north latitude and 124.0250° west longitude, LLID number 1240251408144. The unnamed tributary is a second order stream and has approximately 2.4 miles of blue line stream according to the USGS Arcata South 7.5 minute quadrangle. The unnamed tributary drains a watershed of approximately 1.1 square miles. Elevations range from about 185 feet at the mouth of the creek to 1,500 feet in the headwater areas. Mixed conifer forest dominates the watershed. The watershed is primarily privately owned and is managed for timber production and rangeland. Vehicle access exists via Jacoby Creek Road.

HABITAT INVENTORY RESULTS AND DISCUSSION

The habitat inventory of July 28 to July 29, 2008, was conducted by J. Braren and C. Chavez, (WSP). The total length of the stream surveyed was 1,132 feet with an additional 57 feet of side channel.

Stream flow was not measured on the unnamed tributary.

The unnamed tributary is an E3 channel type for 1,132 feet of stream surveyed. E3 channels are low gradient, meandering riffle/pool streams with low width/depth ratios and little deposition. They are very efficient and stable with a high meander width ratio and cobble-dominant substrates.

The suitability of E3 channel types for fish habitat improvement structures is as follows: E3 channel types are good for bank-placed boulders and fair for opposing wing-deflectors.

The water temperatures recorded on the survey days July 28 to July 29, 2008, ranged from 52 to 56 degrees Fahrenheit. Air temperatures ranged from 50 to 64 degrees Fahrenheit. 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, flatwater habitat types comprised 28%, riffles 47%, pools 18%, dry 3%, and culvert 3%. The pools are relatively shallow, with only 2 of the 13 (15%) pools having a maximum residual depth greater than 2 feet.

Eleven of the 13 pool tail-outs measured had embeddedness ratings of 1 or 2. Two of the pool tail-outs had embeddedness ratings of 3 or 4. Cobble embeddedness of 25% or less, a rating of 1, is considered best for the needs of salmon and steelhead.

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Ten of the 13 pool tail-outs measured had gravel or small cobble as the dominant substrate. This is generally considered good for spawning salmonids.

The mean shelter rating for pools was 39. The shelter rating in the flatwater habitats was 30. A pool shelter rating of approximately 100 is desirable. The amount of cover that now exists is being provided primarily by boulders in the unnamed tributary. Boulders are the dominant cover type in pools followed by undercut banks.

The mean percent canopy density for the stream was 91%. The percentage of right and left bank covered with vegetation was 96% and 96%, respectively.

BIOLOGICAL INVENTORY RESULTS

No salmonids were observed from the stream banks during the survey. No detailed survey was conducted on the unnamed tributary.

RECOMMENDATIONS

- 1) The unnamed tributary to Jacoby Creek should be managed as an anadromous, natural production stream.
- 2) The limited water temperature available suggests 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) Conduct biological sampling to determine if anadromous fish have access to this unnamed tributary to Jacoby Creek.

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.

Position (ft):	Habitat unit #:	Comments:
0'	0001	Begin survey at confluence with Jacoby Creek. There is a 36% slope over the first 71 feet of stream.
1,132'	0046	End of survey due to a 6.2' waterfall.