

STREAM INVENTORY REPORT

Unnamed Tributary to Wheelbarrow Creek

WATERSHED OVERVIEW

Refer to (Map 1) for the location of Unnamed Tributary to Wheelbarrow Creek..

Unnamed Tributary is tributary to Wheelbarrow Creek, tributary to Tomki Creek, tributary to the Mainstem Eel River, tributary to the Pacific Ocean, located in Mendocino County, California. Unnamed Tributary's legal description at the confluence with Wheelbarrow Creek is T18N R13W S17. Its location is 39°30'58" north latitude and 123°19'57" west longitude. Unnamed Tributary is an ephemeral stream according to the USGS Willits 7.5 minute quadrangle. Unnamed Tributary drains a watershed of approximately 0.76 square miles. Elevations range from about 2,000 feet at the mouth of the creek to 2,880 feet in the headwater areas. Douglas fir and mixed hardwood forest dominates the watershed. The watershed is entirely privately owned and is managed for timber production and rangeland. Vehicle access exists via a Left turn off Highway 101 South after Reeves Canyon and before Ryan Creek. Follow the road through Wheelbarrow Valley to the confluence of Unnamed Tributary and Wheelbarrow Creek.

HABITAT INVENTORY RESULTS AND DISCUSSION

The habitat inventory of June 24, 1997, was conducted by Jessie Robertson and David Jones (WSP/AmeriCorps). The total length of the stream surveyed was 519 feet.

Flows were not measured on Unnamed Tributary.

Unnamed Tributary is an F3 channel type for the entire 519 feet of stream surveyed. The suitability of F3 channel types for fish habitat improvement structures is described in the main body of this report.

The water temperatures recorded on the survey day June 24, 1997, ranged from 65° to 68° degrees Fahrenheit. Air temperatures ranged from 84° to 88° degrees Fahrenheit. This is a suitable water temperature range for salmonids, but water temperatures during warm summer months are lacking. 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 14% riffle units, 30% flatwater units, and 56% pool units. The pools are relatively deep, with 9 of the 10 pools having a maximum depth greater than 2 feet.

Nine of the 10 pool tail-outs measured had embeddedness ratings of 3, 4, or 5, and none had a rating of 1 or 2. Cobble embeddedness of 25% or less, a rating of 1, is considered best for the needs of salmon and steelhead. A rating of 5 indicates the pool tail-out was unsuitable for

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spawning. All 8 of the pool tail-outs with a rating of 5 were composed of sand or silt unsuitable for spawning. In Unnamed Tributary, 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 44. The shelter rating in the flatwater habitats was 5. 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.

Eight of the 10 pool tail-outs measured had silt or sand as the dominant substrate. This is generally considered poor for spawning salmonids.

The mean percent canopy density for the stream was 72%. In general, revegetation projects are considered when canopy density is less than 80%.

The percentage of right and left bank covered with vegetation was 64% and 72%, 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.

BIOLOGICAL INVENTORY RESULTS

No salmonids were observed during the habitat survey.

RECOMMENDATIONS

- 1) Unnamed Tributary to Wheelbarrow Creek should be managed as an anadromous, natural production stream.
- 2) 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.
- 3) Active and potential sediment sources related to the road system need to be identified, mapped, and treated according to their potential for sediment yield to the stream and its tributaries.
- 4) The limited water temperature data available suggest that 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

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- be performed for 3 to 5 years.
- 5) Increase the canopy on Unnamed Tributary to Wheelbarrow Creek by planting willow, alder and other native riparian tree species 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.

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 Wheelbarrow Creek. Channel Type is an F3.
- 457' The channel is clogged with rushes and cattails.
- 497' A bridge crosses 6.5' above the creek.
- 561' End of survey. Stream flow is minimal and the channel is choked with vegetation. No fish were observed during the entire survey.