

# STREAM INVENTORY REPORT

## Unnamed Tributary B

### WATERSHED OVERVIEW

Refer to the map of South Fork Noyo River for the location of Unnamed Tributary B.

Unnamed Tributary B is tributary to the South Fork Noyo River, a tributary to Noyo River, located in Mendocino County, California. Unnamed Tributary B's legal description at the confluence with South Fork Noyo River is T17N R16W S04. Its location is 39°22'07" N. latitude and 123°39'25" W. longitude. Unnamed Tributary B is an ephemeral stream according to the USGS Mathison Peak 7.5 minute quadrangle. Unnamed Tributary B drains a watershed of approximately 0.3 square miles. Summer base runoff is approximately 0.003 cubic feet per second (cfs) at the mouth. Elevations range from about 190 feet at the mouth of the creek to 800 feet in the headwater areas. Redwood and Douglas fir forest dominates the watershed. The watershed is located within Jackson Demonstration State Forest and is managed for timber production. Vehicle access exists via California Division of Forestry Road 320.

### HABITAT INVENTORY RESULTS AND DISCUSSION

The habitat inventory of October 3, 1995, was conducted by Kyle Young and Jeffrey Jahn (WSP/AmeriCorps). The total length of the stream surveyed was 2,007 feet.

Flow was measured at the bottom of the survey reach with a Marsh-McBirney Model 2000 flowmeter at 0.003 cfs on October 3, 1995.

Unnamed Tributary B is a G4 channel type for the entire 2,007 feet of stream surveyed. The suitability of G4 channel types for fish habitat improvement structures is as follows: good for bank-placed boulders; fair for low-stage weirs, opposing wing deflectors, and log cover; and poor for medium-stage weirs, boulder clusters, and single wing deflectors.

The water temperatures recorded on the survey day October 3, 1995, ranged from 54 to 57 degrees Fahrenheit. Air temperatures ranged from 70 to 75 degrees Fahrenheit. This is a very good water 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 21% of the total **length** of this survey, riffles 20%, and pools 43%. The pools are relatively shallow, with only 7 of the 59 pools having a maximum depth greater than 2 feet. Primary pool criteria are discussed in the main body of this report.

Seven of the 37 pool tail-outs measured had embeddedness ratings of 3 or 4. Only one 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 Tributary B, sediment sources should be mapped and rated according to their potential sediment yields, and control measures should be

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taken.

The mean shelter rating for pools was moderate with a rating of 69. The shelter rating in the flatwater habitats was lower at 7. 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.

All of the three low gradient riffles measured had gravel as the dominant substrate. This is generally considered good for spawning salmonids.

The mean percent canopy for the stream was 94%. 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 high at 77% and 86%, 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.

Coho and steelhead were sampled in the downstream biological inventory site. No fish were sampled in the upstream site; however, young-of-the-year salmonids were observed 1,462 upstream from the confluence with South Fork Noyo River. Inadequate flows probably prohibit further upstream usage of Unnamed Tributary B by anadromous fish.

### BIOLOGICAL INVENTORY RESULTS

Two sites were electrofished on October 3, 1995, in Unnamed Tributary B. The units were sampled by Kyle Young and Jeffrey Jahn (WSP/AmeriCorps).

The first site sampled was habitat units 5-10, a series of pools, runs, and riffles 64 feet from the confluence with South Fork Noyo River. This site had an approximate length of 47 feet. The site yielded two 0+ coho, one 0+ steelhead, and three Pacific giant salamanders.

The second site was habitat units 130 through beyond the end of the surveyed reach, a series of widely dispersed remnant pools 1,950 feet above the creek mouth. This site had a length of approximately 133 feet. No fish were sampled.

### RECOMMENDATIONS

- 1) Unnamed Tributary B should be managed as an anadromous, natural production stream.
- 2) Where feasible, design and engineer pool enhancement structures to deepen the pools. This must be done where the banks are stable or in conjunction with stream bank armor to prevent erosion.

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- 3) Increase woody cover in the pools and flatwater habitat units. Adding high quality complexity with woody cover is desirable and in some areas the material is at hand.
- 4) Inventory and map sources of stream bank erosion and prioritize them according to present and potential sediment yield. Identified sites, like the site at 1,310', should then be treated to reduce the amount of fine sediments entering the stream.
- 5) 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.
- 6) There are several log debris accumulations present on Unnamed Tributary B 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.

## 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):	Comments:
0'	Begin survey at confluence with South Fork Noyo River. Channel type is G4.
92'	Footbridge.
563'	Right bank rip-rap falling into creek.
959'	Log and debris accumulation (LDA) retaining sediment 1' deep at base. Not a barrier.
1275'	Left bank tributary.
1310'	Right bank erosion contributing gravel and fines.
1326'	LDA 4' high x 12' wide x 20' long.
2007'	End of survey due to inadequate flow.