STREAM INVENTORY REPORT

UNNAMED TRIBUTARY B

WATERSHED OVERVIEW

Unnamed Tributary B is tributary to South Fork Noyo River, tributary to Noyo River, located in Mendocino County, California (Figure 1). Unnamed Tributary B's legal description at the confluence with South Fork Noyo River is T17N R16W S04. Its location is 39°22'07" north latitude and 123° 39'25" west 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 0.03 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. California Department of Forestry and Fire Protection (CDF) Road 320 parallels Unnamed Tributary B.

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 0.03 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 good water temperature range for salmonids but water temperature data for the 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 21% flatwater units, 20% riffle units, and 43% pool units. The pools are relatively shallow, with only 7 of the 59 pools having a maximum depth greater than 2 feet.

Seven of the 37 pool tail-outs measured had embeddedness ratings of 3 or 4. Only one had a 1 rating. Cobble embeddedness of 25% or less, a rating of 1, is considered to indicate good quality spawning substrate for 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 taken.

The mean shelter rating for pools was moderate with a rating of 69. The shelter rating in the flatwater habitats was 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 density for the stream was 94%. This is a relatively high 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 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 included 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 included 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) 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.

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 be performed for 3 to 5 years.

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.

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.

LEVEL III and LEVEL IV HABITAT TYPE KEY

HABITAT TYPE	LETTER	NUMBER
RIFFLE		
Low Gradient Riffle	[LGR]	1.1
High Gradient Riffle	[HGR]	1.2
CASCADE		
Cascade	[CAS]	2.1
Bedrock Sheet	[BRS]	2.2
FLATWATER		
Pocket Water	[POW]	3.1
Glide	[GLD]	3.2
Run	[RUN]	3.3
Step Run	[SRN]	3.4
Edgewater	[EDW]	3.5
MAIN CHANNEL POOLS		
Trench Pool	[TRP]	4.1
Mid-Channel Pool	[MCP]	4.2
Channel Confluence Pool	[CCP]	4.3
Step Pool	[STP]	4.4
SCOUR POOLS		
Corner Pool	[CRP]	5.1
Lateral Scour Pool - Log Enhanced	[LSL]	5.2
Lateral Scour Pool - Root Wad Enhanced	[LSR]	5.3
Lateral Scour Pool - Bedrock Formed	[LSBk]	5.4
Lateral Scour Pool - Boulder Formed	[LSBo]	5.5
Plunge Pool	[PLP]	5.6
BACKWATER POOLS		
Secondary Channel Pool	[SCP]	6.1
Backwater Pool - Boulder Formed	[BPB]	6.2
Backwater Pool - Root Wad Formed	[BPR]	6.3
Backwater Pool - Log Formed	[BPL]	6.4
Dammed Pool	[DPL]	6.5