

STREAM INVENTORY REPORT SUBSECTION

Unnamed Tributary to McMullen Creek

WATERSHED OVERVIEW

The unnamed tributary is a tributary to McMullen Creek, a tributary to the Noyo River, located in Mendocino County, California (Map 1). The unnamed tributary's legal description at the confluence with McMullen Creek is T18N R14W S06. Its location is 39°26'17" north latitude and 123°26'52" west longitude. The unnamed tributary is an intermittent stream according to the USGS Burbeck 7.5 minute quadrangle. The unnamed tributary drains a watershed of approximately 0.7 square miles. Elevations range from about 740 feet at the mouth of the creek to 3,000 feet in the headwater areas. Redwood/Douglas fir forest dominates the watershed. The watershed is entirely privately owned and is managed for timber production. Vehicle access exists via Highway 20 west to Irmulco Road.

HABITAT INVENTORY RESULTS AND DISCUSSION

The habitat inventory of July 11, 2000, was conducted by Randy Turner (WSP/AmeriCorps) and Jennifer Jenkins (CCC). The total length of the stream surveyed was 1,236 feet.

Flows were not measured on the unnamed tributary.

The unnamed tributary is a G4 channel type for the entire 1,236 feet of stream surveyed. G4 channels are entrenched "gully" step-pool and low width/depth ratio on moderate gradient. The suitability of G4 channel types for fish habitat improvement structures is as follows: good for bank-placed boulders, fair for plunge weirs, opposing wing deflectors and log cover, and poor for boulder clusters and single wing-deflectors.

The water temperatures recorded on the survey day July 11, 2000, ranged from 61 to 62 degrees Fahrenheit. Air temperatures ranged from 75 to 76 degrees Fahrenheit. This is a moderate 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 75% riffle units, 14% pool units, and 11% flatwater units. The pools are relatively shallow, with only 3 of the 14 pools having a maximum depth greater than 2 feet.

Eight of the 14 pool tail-outs measured had embeddedness ratings of 3. Two had a rating of 1. Cobble embeddedness of 25% or less, a rating of 1, is considered best for the needs of salmon and steelhead. In the 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 32. The shelter rating in the flatwater habitats was 30. A pool shelter rating of approximately 100 is desirable. Log and root wad cover structure in the pool and flatwater habitats are needed to improve both summer and winter salmonid habitat.

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Thirteen of the 14 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 97%. The percentage of right and left bank covered with vegetation was moderate at 90% and 87%, respectively.

BIOLOGICAL INVENTORY RESULTS

One site was electrofished on July 19, 2000 in the unnamed tributary. The site was sampled by the Mendocino Redwood Company.

The site sampled included habitat units 027-029, a series of run, pool, run, approximately 934 feet from the confluence with McMullen Creek. The site yielded 13 young-of-the-year steelhead, 1 one-plus age class steelhead, and 6 Pacific giant salamanders.

The following chart displays the information yielded from this site. Site # 70-46 is according to the Mendocino Redwood Company data and corresponds to habitat units 027, 028, and 029.

Date	Site #	Approx. dist. From mouth (Ft)	Habitat Unit #	Hab. Type	Reach #	Channel Type	Steelhead		
							YOY	1+	2+
7/19/2000	1 (70-46)	934	027-029	1.1, 4.2, 1.1	1	G4	13	1	0

RECOMMENDATIONS

- 1) Tributary to McMullen 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) 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.

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.

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Position
(ft):

Comments:

0'	Beginning of survey at confluence with McMullen Creek
119'	Log debris accumulation (LDA) 33' long x 6' wide x 5' high, retaining 3' of sediment.
252'	LDA, 9' long x 50' wide x 4' high, retaining 3' of sediment.
321'	LDA, 12' wide x 4' high, retaining 2' of sediment.
605'	LDA, 8' long x 7' wide x 3' high, retaining 2' of sediment.
931'	LDA, 3' long x 12' wide x 3' high, retaining 3' of sediment.
1,140'	LDA, 15' long x 12' wide x 8' high, not retaining sediment.
1,236'	End of survey due to LDA, 30' long x 25' wide x 12' high, retaining 10' of sediment.