

## STREAM INVENTORY REPORT Unnamed Tributary to South Fork Redwood Creek

### WATERSHED OVERVIEW

Unnamed Creek is a tributary to South Fork Redwood Creek, a tributary to Redwood Creek, a tributary to Hollow Tree Creek, a tributary to the South Fork Eel River, located in Mendocino County, California (Map 1). Unnamed Creek's legal description at the confluence with South Fork Redwood Creek is T22N R17W S16. Its location is 39°45'29.0" north latitude and 123°45'31.0" west longitude, and its LLID number is 123758397580. Unnamed Creek is a first order stream and has approximately 3,360 feet of blue line stream according to the USGS Hales Grove 7.5 minute quadrangle. Unnamed Creek drains a watershed of approximately 0.25 square miles. Elevations range from about 1,350 feet at the mouth of the creek to 1,600 feet in the headwater areas. Redwood/Douglas fir forest dominates the watershed. The watershed entirely privately owned and is managed for timber production. Vehicle access exists via Highway 1 at Hales Grove to the private and gated Westside Road to a private logging road that follows Redwood Creek and the South Fork Redwood Creek.

### HABITAT INVENTORY RESULTS AND DISCUSSION

The habitat inventory of 7/22/03, was conducted by Elizabeth Pope and Kevin Lucey, (AmeriCorps/WSP). The total length of the stream surveyed was 990 feet.

Stream flow was not measured on Unnamed Creek.

Unnamed Creek is a B4 channel type for entire 990 feet of the stream surveyed (Reach 1). The suitability of B4 channel types for fish habitat improvement structures is described in the main body of this report.

The water temperatures recorded on 7/22/03, ranged from 60 to 64 degrees Fahrenheit. Air temperatures ranged from 75 to 77 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, Level II habitat units consisted of 55% flatwater units, 23% dry units, 12% riffle units and 10% pool units. The pools are relatively shallow, with only 1 of the 7 pools having a maximum residual depth greater than 2 feet.

None of the 7 pool tail-outs measured had embeddedness ratings of 1 or 2. All 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. In Unnamed Creek, sediment sources should be mapped and rated according to their potential sediment yields, and control measures should be taken.

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The mean shelter rating for pools was 5. The shelter rating in the flatwater habitats was 8. A pool shelter rating of approximately 100 is desirable.

One of the nine low gradient riffles had silt or sand/large cobble or boulders as the dominant substrate. This is generally considered unsuitable for spawning salmonids.

The mean percent canopy density for the stream was 91%. In general, revegetation projects are considered when canopy density is less than 80.

The percentage of right and left bank covered with vegetation was 58% and 58%, respectively. In areas of stream bank erosion or where bank vegetation is not at acceptable levels, planting endemic species of coniferous and hardwood trees, in conjunction with bank stabilization, is recommended.

## BIOLOGICAL INVENTORY RESULTS

Two sites were snorkel surveyed on August 12, 2003, in Unnamed Creek. The units were sampled by Trevor Tollefson (DFG) and Janelle Breton (DFG/CCC).

The first site sampled included habitat units 008 a pool, 194 feet from the confluence with South Fork Redwood Creek. This site had an approximate length of 20 feet. The site yielded no fish.

The second site included habitat units 013, a pool 292 feet above the creek mouth. This site had a length of approximately 49 feet. The site yielded no fish.

## RECOMMENDATIONS

- 1) Unnamed 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.
- 4) Several log debris accumulations are present on Unnamed Creek that are retaining large quantities of fine sediment. The modification of these debris accumulations is desirable,

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but must be done carefully, over time, to avoid excessive sediment loading in downstream reaches.

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.

Position (ft.)	Habitat Unit #	Comments:
0	0001.00	Start of survey. Unnamed tributary of the South Fork Redwood Creek survey begins at the confluence with South Fork Redwood Creek.
131	0006.00	Banks piled high with small woody debris and fallen trees.
194	0008.00	Snorkel sample site. No fish observed.
255	0012.00	Right bank failure, 20' long x 12' high x 2' deep
292	0013.00	Old skid road on right bank Snorkel sample site. No fish observed.
364	0016.00	Creek forks
364	0016.00	Dominant left bank branch consists of a series of upstream V-weirs. Both banks reinforced with large log cribbing (28 logs in total). Each log about 25' long and 3' diameter. Cribbing ends in 7' fall. Right bank branch ends in a 6' fall with a 1.5' pool.
773	0028.00	Channel is blocked with debris
990	0030.00	End of survey. Creek goes subsurface and is blocked by woody debris.