STREAM INVENTORY SUB-SECTION REPORT
Unnamed tributary to Little Sproul Creek

WATERSHED OVERVIEW

Refer to the map of Little Sproul Creek for the location of Unnamed tributary.

Unnamed tributary is a tributary to Little Sproul Creek, a tributary to Sproul Creek, a tributary to South Fork Eel River, a tributary to Pacific Ocean, located in Humboldt County, California. Unnamed tributary's legal description at the confluence with Little Sproul Creek is T04S R03E S28. Its latitude is 40:05:06.0N and longitude is 123:51:22.0W, LLID number 1238562400850. Unnamed tributary is an ephemeral stream according to the USGS Garberville 7.5 minute quadrangle. Unnamed tributary drains a watershed of approximately 1.34 square miles. Summer base runoff is approximately 0.04 cubic feet per second (cfs) at the mouth. Elevations range from about 564 feet at the mouth of the creek to 1,650 feet in the headwater areas. Mixed hardwood/mixed conifer forest dominates the watershed. The watershed is entirely privately owned and is managed for timber production/rangeland/recreation. Vehicle access exists via a locked gate off Briceland Road.

HABITAT INVENTORY RESULTS AND DISCUSSION

The habitat inventory of 7/15/2004 to 7/21/2004 was conducted by Lindsay Selvaggio and Corby Hines (CCC). The total length of the stream surveyed was 4,866 feet.

Stream flow was estimated to be 0.04 cfs during the survey period.

Unnamed tributary is an A4 channel type for the entire length of the stream surveyed. The A4 channel type is unsuitable for fish habitat improvement structures.

The water temperatures recorded on the survey days 7/15/2004 to 7/21/2004, ranged from 62 to 66 degrees Fahrenheit. Air temperatures ranged from 64 to 84 degrees Fahrenheit. This is a good temperature range for juvenile 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 31% riffle units, 7% pool units, and 61% flatwater units. The pools are relatively shallow, with only 3 of the 19 pools having a maximum residual depth greater than 2 feet.

Twelve of the 19 pool tail-outs measured had embeddedness ratings of 1 or 2. Two 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.

The mean shelter rating for pools was 42. The shelter rating in the flatwater habitats was 24. A

pool shelter rating of approximately 100 is desirable.

Eleven of the 19 pool tail-outs measured had gravel or small cobble as the dominant substrate. This is generally considered good for spawning salmon.

The mean percent canopy density for the stream was 94%. In general, re-vegetation projects are considered when canopy density is less than 80.

The percentage of right and left bank covered with vegetation was 75% and 55%, 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

A snorkel survey was conducted to determine species composition and distribution for Unnamed tributary on July 27, 2004. The units were sampled by Allen Renger (DFG) and Corby Hines (CCC).

Eight sites were sampled between habitat units 002 an 070, a distance of 3,237 feet, approximately 3,262 feet from the confluence with Little Sproul Creek. The reach yielded 18 young-of-the-year steelhead and 3 age 1+. In addition, 63 young-of-the-year coho salmon were observed.

RECOMMENDATIONS

1) Unnamed tributary 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) 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 and in some areas the material is at hand.

4) Inventory and map sources of stream bank erosion and prioritize them according to

potential sediment yield. Identified sites should then be treated to reduce the amount of fine sediments entering the stream.

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)	HU#	Comments
0'	001	Begin survey at confluence with Little Sproul Creek.
617'	020	Left bank erosion 35’ long x 25’ high x 5’ deep
708'	023	Right bank tributary.
945'	029	Salmonid observed
968'	030	Right bank tributary.
1,965’	049	Left bank erosion 15’ long x 13’ wide x 7’ deep
2,461’	057	Right bank erosion
2,486’	058	Log debris accumulation (LDA) 30’ long x 35’ wide x 10’ high
3,002’	064	LDA 18’ long x 20’ wide x 9’ high
3,246’	070	Right bank erosion 30’ long x 10’ high x 10’ wide
3,262’	071	Left bank erosion 40’ long x 30’ wide x 10’ high
3,673’	079	Left bank erosion 40’ long x 20’ wide x 10’ high
3,710’	080	Slope increasing, channel narrowing
3,839’	081	Left bank erosion 80’ long x 20’ high x 15’ deep
4,513’	094	20% continuous slope
4,711’	096	Last salmonid observed

Little Sproul Unnamed Tributary

4,844’	099	Six foot plunge
4,866’	100	End of survey due to continuous 20% slope for over 200’. High-gradient riffle/cascade with 20% slope for 100’ beyond end of survey until a “barrier to humans” in the channel is a large root wad from left bank landslide blocking channel. No fish observed beyond 4,711’.