STREAM INVENTORY REPORT

UNNAMED ROCKPORT CREEK TRIBUTARY

WATERSHED OVERVIEW

Unnamed Rockport Creek Tributary is tributary to Rockport Creek, tributary to South Fork Cottaneva Creek, located in Mendocino County, California (Figure 1). Unnamed Rockport Creek Tributary's legal description at the confluence with Rockport Creek is T22N R13W S25. Its location is 39°44′02″ north latitude and 123°48′24″ west longitude. Unnamed Rockport Creek Tributary is a first order stream and has approximately 0.5 miles of blue line stream according to the USGS Westport 7.5 minute quadrangle. Unnamed Rockport Creek Tributary drains a watershed of approximately 0.4 square miles. Summer base runoff is approximately 0.12 cubic feet per second (cfs) at the mouth. Elevations range from about 100 feet at the mouth of the creek to 1000 feet in the headwater areas. Redwood and Douglas fir forest dominates the watershed. The watershed is privately owned and is managed for timber production. Foot access exists via an abandoned private road.

HABITAT INVENTORY RESULTS AND DISCUSSION

The habitat inventory of June 8, 1995, was conducted by Chris Coyle (CCC) and Kyle Young (WSP\AmeriCorps). The total length of the stream surveyed was 2,111 feet with an additional 10 feet of side channel.

Flow was measured at the bottom of the survey reach with a Marsh-McBirney Model 2000 flowmeter at 0.12 cfs on August 2, 1995.

Unnamed Rockport Creek Tributary is an E4 channel type for the first 274 feet of stream surveyed, a G4 for the next 534 feet, and a B4 for the remaining 1,303 feet of stream surveyed. The suitability of E4 channel types for fish habitat improvement structures is as follows: good for bank-placed boulders; fair for opposing wing deflectors; poor for medium-stage weirs, boulder clusters, and single wing deflectors. G4 channel types are considered: 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. B4 channel types are considered: excellent for low-stage plunge weirs, boulder clusters, bank-placed boulders, single and opposing wing deflectors, and log cover; and good for medium-stage plunge weirs.

The water temperatures recorded on the survey day June 8, 1995, ranged from 51 to 54 degrees Fahrenheit. Air temperatures ranged from 54 to 62 degrees Fahrenheit. This is a very 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 of 45% riffle units, 27% flatwater units, and 27% pool units. The pools are relatively shallow, with only 2 of the 34 (6%) pools having a maximum depth greater than 2 feet.

Fifteen of the 34 pool tail-outs measured had embeddedness ratings of 3 or 4. Only 5 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 Rockport Creek 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 low with a rating of 19. The shelter rating in the flatwater habitats was 15. 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 8 low gradient riffles 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 96%. 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 94% and 95%, respectively.

BIOLOGICAL INVENTORY RESULTS

Four sites were electrofished on August 2, 1995, in Unnamed Rockport Creek Tributary. The units were sampled by Craig Mesman (CCC) and Kyle Young (WSP/AmeriCorps).

The first site sampled included habitat units 10-14, two corner pools, two riffles, and a run approximately 116 feet from the confluence with Rockport Creek. This site had an approximate length of 54 feet. The site yielded fifteen 0+ steelhead and one Pacific giant salamander.

The second site included habitat units 22-30, a series of pools, runs, and riffles 286 feet above the creek mouth. This site had a length of approximately 141 feet. Eleven 0+ steelhead and two Pacific giant salamanders were sampled.

The third site included habitat units 60-75, a series of pools, runs, and riffles 1,087 feet above the creek mouth and upstream of the culvert at 808'. This site had an approximate length of 180 feet. One 0+ steelhead, one 1+ steelhead, and six Pacific giant salamanders were sampled.

The fourth site included habitat units 80-87, a series of runs, riffles, and step pools 1,321 feet above the creek mouth and 42 feet above a suspected barrier. This site had an approximate length of 114 feet. No fish were sampled.

RECOMMENDATIONS

1) Unnamed Rockport Creek Tributary should be managed as an anadromous, natural production stream.

2) Where feasible, design and engineer pool enhancement structures to increase the number of pools. This must be done where the banks are stable or in conjunction with stream bank armor to prevent erosion.

3) Increase woody cover in the pools and flatwater habitat units. Most of the existing cover is from terrestrial vegetation. Adding high quality complexity with woody cover is desirable and in some areas the material is at hand.

4) 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.

5) The limited water temperature available suggest 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.

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 Rockport Creek. Channel type is E4.

274' Channel type changes to G4.

808' Four foot diameter x 40' long corrugated metal pipe culvert. No baffles. Channel type changes to B4.

1050' Right bank tributary. No surface flow.

1267' Embedded log acting as "flume", 3.5' jump with no jump pool. Probable velocity barrier.

1511' Log debris accumulation (LDA) 4' high x 10' wide x 3' long retaining gravel 4' deep at base. Possible barrier. Left bank erosion 10' high x 20' long contributing fines. Right bank tributary. Estimated flow 2 gallons per minute.

2111' LDA 5' high x 10' wide x 15' long. 3.5' jump with no jump pool. Jump is blocked by debris. Channel above this point is clogged with debris and retaining large amounts of fine sediment. End of survey.

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