STREAM INVENTORY REPORT

SOUTH FORK VANAUKEN CREEK

WATERSHED OVERVIEW

South Fork Vanauken Creek is tributary to Vanauken Creek, tributary to Mattole River, located in Humboldt County, California. South Fork Vanauken Creeks's legal description at the confluence with Vanauken Creek is T05S R02W S--. Its location is 40°03'21" N. latitude and 123°56'50" W. longitude. South Fork Vanauken Creek is a blue line stream according to the USGS Briceland 7.5 minute quadrangle. South Fork Vanauken Creek drains a watershed of approximately 0.34 square miles. Elevations range from about 990 feet at the mouth of the creek to 1120 feet in the headwater areas. Mixed conifer forest dominates the watershed. The watershed is primarily privately owned and is managed for timber production. Vehicle access exists via Briceland Road to Whitethorn Junction. Proceed south from Whitethorn Junction to a gated dirt road on the left just beyond the Whitethorn CDF station. This road parallels Vanauken Creek. Follow this road until it crosses Vanauken Creek. Walk downstream Vanauken Creek to the mouth of South Fork Vanauken Creek. Refer to the enclosed map for the location of South Fork Vanauken Creek.

HABITAT INVENTORY RESULTS AND DISCUSSION

The habitat inventory of June 11, 1996, was conducted by Dave Smith and Dylan Brown (PCFWWRA). The total length of the stream surveyed was 449 feet.

Flows were not measured on South Fork Vanauken Creek.

No channel type was taken on South Fork Vanauken Creek.

The water temperature taken on the survey day was 55° Fahrenheit. Air temperatures ranged from 63 to 64 ° F. This is a good water temperature for salmonids. To make any further conclusions, temperatures would need to be monitored throughout the warm summer months, and more extensive biological sampling would need to be conducted.

Flatwater habitat types comprised 49% of the total **length** of this survey, riffles 16%, and pools 35%. The pools are relatively shallow, with only four of the seven pools having a maximum depth greater than two feet. Primary pool criteria are discussed in the main body of this report.

Five of the seven pool tail-outs measured had embeddedness ratings of 3 or 4. No units had a rating of 1. Cobble embeddedness measured to be 25% or less, a rating of 1, is considered best for the needs of salmon and steelhead. In South Fork Vanauken Creek, 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 79. The shelter rating in the flatwater habitats was much lower at five. A pool shelter rating of approximately 100 is desirable. The relatively small amount of cover that now exists is being provided primarily by boulders and SWD in all habitat types. Log and root wad cover structures in the pool and flatwater habitats are needed to improve both summer and winter salmonid habitat.

Six of the six low gradient riffles had gravel/sand as the dominant substrate. This is generally considered poor for spawning salmonids.
The mean percent canopy for the stream was 90%. This is a relatively high percentage of canopy, since 80 percent is generally considered optimum in these north coast streams.

The percentage of right and left bank covered with vegetation was moderate at 88.5% and

91.8%, 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.

BIOLOGICAL INVENTORY RESULTS

No sites were electrofished on South Fork Vanauken Creek. Surveyors observed no fish for the 449' of the survey.

RECOMMENDATIONS

1) South Fork Vanauken should be managed as an anadromous, natural production stream.

2) Temperatures in this section of South Fork Vanauken, as well as upstream, should be monitored to determine if they are having a deleterious effect upon juvenile salmonids. To achieve this, biological sampling is also required.

3) 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.

4) 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.

5) Inventory and map sources of stream bank erosion and prioritize them according to present and potential sediment yield. Identified sites should then be treated to reduce the amount of fine sediments entering the stream.

6) 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.

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 Vanauken Creek.

137' Large debris accumulation (LDA) in stream channel. Possible barrier to migrating adult salmonids. Slope failures on both banks.

330' LDA in stream channel. Possible barrier.

449' End of Survey. No fish were observed for the length of survey.

References

Flosi, G., and F. Reynolds. 1994. California salmonid stream habitat restoration manual, 2nd edition. California Department of Fish and Game, Sacramento, California.

Hopelain, J. 1995. Sampling levels for fish habitat inventory, unpublished manuscript. California Department of Fish and Game, Inland Fisheries Division, Sacramento, California.

Valentine, B. 1995. Stream substrate quality for salmonids: guidelines for sampling, processing, and analysis, unpublished manuscript. California Department of Forestry and Fire Protection, Santa Rosa, California.

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