## CALIFORNIA DEPARTMENT OF FISH AND GAME STREAM SURVEY

				TILE FORM	110
NAME	MILL CREEK	Cc	OUNTY	.Mendocino	
STREAM SECTION	Entire <b>FROM</b> Headwate	ersTo	Mouth	LENGTH4 MI	
TRIBUTARY TOC	leoneLakethencetoPacif	icOcean	TWP1	18N <b>R1</b> 7W	. <b>SEC.</b> 22
OTHER NAMESNo	one knownRIVER	R SYSTEM	Mill Creek.		
SOURCES OF DATA.	Personal observa	ation by foot			

EXTENT OF OBSERVATION
Include: Name of Surveyor, Date, Etc.
LOCATION
RELATION TO OTHER WATERS
GENERAL DESCRIPTION
Watershed
Immediate Drainage Basin
Altitude (Range)
Gradient
Width
Depth
Flow (Range)
Velocity
Bottom
Spawning Areas
Pools

Pools
Shelter
Barriers
Diversions
Temperatures
Food

Aquatic Plants
Winter Conditions
Pollution
Springs
FISHES PRESENT AND SUCCESS

OTHER VERTEBRATES
FISHING INTENSITY
OTHER RECREATIONAL USE
ACCESSIBILITY
OWNERSHIP POSTED OR OPEN
IMPROVEMENTS
PAST STOCKING
GENERAL ESTIMATE
RECOMMENDED MANAGEMENT
SKETCH MAP
REFERENCES AND MAPS

EXTENT OF OBSERVATION - This stream was checked out by foot from the headwaters to the Pacific Ocean by F&G Assistant James Crowdus and Seasonal Aid Jack Santos on August 31 1961.

FILE ECODM No.

LOCATION - Located approximately 5 miles north of Ft. Bragg in Mendocino County. It crosses Highway Route 1 and is confluence with the Route 1 and MacKerricher State Park of California Divison of Beaches and Parks. Mill Creek runs in an east to west direction.

RELATION TO OTHER WATERS - Drains to Cleone Lake at MacKerricher State Park and to the Pacific Ocean.

GENERAL DESCRIPTION - <u>Watershed</u> - Mill Creek is a watershed of approximately 4 to 5 sq. mi.

Immediate Drainage Basin - Mill Creek is a very wide valley in the lower section becoming progressively narrow from about 1½ upstream from the Pacific Ocean. Meadows and second growth conifer exist throughout. Steep, low hillsides in the upper section. The stream has a rather mild gradient of 3 ft. per 100 ft. The lower section of Mill Creek populated by Ft. Bragg residential homes, an old sawmill and some rural community type homes. Farming, livestock and small mill work exist along this stream. Altitude -sea level to 750 ft.

Gradient Slight or mild gradient of 3 ft per 100.

Width - Average is 1 ft. with range 1 ft. to 6 ft.

Depth - Average depth at this date is 3 in. range 0 to 2 ft.

 $F\underline{low}\,$  - Intermittent to 1 gallon per hour throughout.

Velocity - Slow to sluggish throughout.

<u>Bottom</u> - Predominantly grasses with clay, mud and small gravel scattered throughout. Organic debris in the form of decaying timber is prevalent in the upper section.

Spawning Areas - Unsatisfactory, very poor. Spawning area exists in the mid section for a distance of approximately 1/2 mi. The upper section is unavailable to spawning due to congested vegetation. This is typical also of the lower section just above Route 1 where alder populate the immediate stream basin.

Pools - Few and scattered throughout, mostly around log jams 2 ft. sq. and 1 ft. deep.

Shelter - Abundant from dense stream vegetation and log jams.

<u>Barriers</u> - At the lower end of Cleone Lake two 2½ft. dia. culverts with screw gates exist. This is evidently for raising and lowering the lake level. Dense vegetation for 1/8 mile above the lake on both sides of Route 1 in the form of alders and other stream associated plants and trees constitute a major potential fish barrier problem. At the second locked gate approximately ½mi. from Route 1 a 4-wire barbed wire fence is across the stream. This is an excellent potential barrier as any floating log debris will collect at this point At the last upstream farm house on the paralleling road up the stream, there is an old fallen bridge and fence with timber, logs and other debris in the stream. This constitutes approximately a 3 to 4 ft. barrier at the present time and siltation has occurred behind this.

<u>Diversions</u> - Three pump diversions consisting of 1 to 3 hp pumps with 2½nch hoses in the area just above the large meadow at Route 1. These pumps are primarily believed to be for irrigation purposes. One pump is a permanent station in a house. The others seem to be temporary as they are small and on small stands located on the banks near the stream. Temperatures - Water 63°F., air 70°F.

Food - Food is in a fair supply. Caddis fly in moderate amounts throughout. Few available insects

Aquatic Plants - Aquatic plants in the form of reeds and floating algae around the eastern or upper end of Cleone Lake.

Aquatic plants are scattered throughout the stream.

Winter Conditions - Unknown.

Pollution - None observed.

<u>Springs</u> - Numerous springs exist in the upper area but they are of oozing consistency at this date. No flow was recorded. FISHES PRESENT AND SUCCESS - Steelhead and/or rainbow trout size 1 to 3 inches. Abundance-few, 1 to 5 per pool; condition - good; success- believed to be fair.

OTHER VERTEBRATES - Domestic cow, sheep and other farm animals were observed in the mid and lower section. Deer, snakes, lizards and frogs were observed throughout the stream.

FISHING INTENSITY - None observed by the author. Believed light in the stream and moderate to heavy in Cleone Lake.

OTHER RECREATIONAL USES - In Cleone Lake there is a tremendous potential in boating, fishing, camping, hiking, nature study and small boat activity, limited to boats without motors. The stream is of value for hiking and some limited fishing. Beyond this, no recreational value.

ACCESSIBILITY - Access is gained from the paralleling road on the north side of the stream approximately 1/8 mile above MacKerricher State Park and continues for 1½ niles to a locked gate owned by Mr. Ross. Beyond this gate the road continues for another quarter mile thence progress up the stream is by foot through relatively dense vegetation. General access is easy.

OWNERSHIP - Private and State (Cleone Lake)-upper section believed owned by Union Lumber Co.

POSTED OR OPEN - The stream is posted. As to its private ownership with usually the owner's name listed and the area belonging to the state is also posted to this effect.

IMPROVEMENTS - Recommend that alders and other stream obstructing vegetation be removed as well as jams listed in the stream. This will greatly facilitate this stream for migratory salmon. Further recommendation is to raise the level of the dam in Cleone Lake, clear sub-surface vegetation and algae limited and controlled, tule eradication, develop certain amount of immediate public access to Cleone Lake for fishing and if need be, drain Cleone Lake and remove additional soil to facilitate in cooler water and a deeper lake.

PAST STOCKING - It is believed that past stocking of rainbow trout by the Region 3 planting crew has stocked this stream. Other stocking and types of fish are unknown to this author.

GENERAL ESTIMATE - The estimate of this stream is its primary value as a water supply to Cleone Lake. The existing stream is of very little spawning value due to the existing alders in the stream bed immediately above Route 1 and dense grasses and other vegetation in the stream. If these were removed, the stream could be of a certain spawning value. Its greatest value lies in its recreational value and uses such as fishing, boating or canoeing.

RECOMMENDED MANAGEMENT - 1. I recommend that Cleone Lake be further developed and enhanced by a fishery program suitable to this type of water and surrounding community. It has been advised under "Improvements" that the dam at the lower end be raised and the depth of the lake be increased. 2. The immediate access to the Lake be improved, the tule control program increased and undesirable vegetation be removed.

REFERENCES AND MAPS - Dept. of Beaches and Parks, California Forestry Service and Union Lumber Co. provide additional information that may be required. Union Lumber Co. map 1954 and USGS Ft. Bragg Quad. 1955.

## J. CROWDUS/es

