CALIFORNIA DEPARTMENT OF FISH AND GAME STREAM SURVEY

| | FILE FORM NO |
|--|---------------------------------------|
| NAME Redwood Creek | COUNTYMendocino |
| STREAM SECTIONEntireFROMTO | LENGTHApprox. 6miles |
| TRIBUTARY TOSouth Fork of the Ten Mile | Twp19NR16WSec8 |
| OTHER NAMESUnknown | .RIVER SYSTEMTen Mile Drainage System |
| NAME OF SURVEYORJames Crowdus and Jack Santos | DATE9/18/61 |
| SOURCES OF DATAPersonal survey and information from local personnel in the private ranches and lumbering | |
| activities in the area and by foot by the stream su | rvevors |

<u>EXTENT OF OBSERVATION</u> -- The entire creek, with the exception of about 400 yards of the extreme headwater (which is too small to support fish life), was walked out by Fish and Game Assistant, James Crowdus, and Seasonal Aid, Jack Santos, on September 18, 1961. This is a distance of approximately 6 mi.

<u>LOCATION</u> – Redwood Creek is located approximately 11 airline mi. north east of the town of Fort Bragg in Mendocino County. It is considered to be in a rather remote and isolated area, with logging roads at its base and at its headwaters. These logging roads change from year to year.

RELATION TO OTHER WATERS - Redwood Creek supplies a water flow and harbors a nursery and spawning area for the South Fork of the Ten Mile and the Ten Mile Drainage System.

GENERAL DESCRIPTION --

<u>WATERSHED</u> and <u>IMMEDIATE DRAINAGE BASIN</u> – Approximately 8 sq.mi. of watershed are included in the Redwood Creek drainage. Basin is primarily a mild gradient of approximately 5 to 6 ft. per 100 in a V-shaped canyon, with relatively steep hillsides that are covered by transition conifer forest. The immediate stream area is lined throughout with alder, willow and, occasionally, tan bark oak. The area in the mid and upper sections is primarily Redwood and other conifer. The area was logged over about 60 years ago and, on this date, the vegetation is comparatively dense and struggling for survival. It is a dense, brush-type growth, which also abounds along the stream bank.

ALTITUDE – 350 to 1550 ft

<u>GRADIENT</u> – The gradient is moderate throughout, except for a cascading section in the extreme upper headwaters. Approximately 3/4 mi. in the headwaters is stair-stepped in its configuration. It proceeds along at a fairly moderate gradient of about 8 ft. per 100, and then drops rapidly at 15 to 30 ft. per 100, and then it levels out again. The lower or main section has a rather consistent gradient of approximately 5 ft. per 100.

DEPTH – Depth has a range from being dry at this time of year to a depth of 5 ft. The average depth is 2 ft.

<u>FLOW</u> – Flow is intermittent throughout on this date. A .35 c.f.s. in the upper section; a .4 c.f.s. below the middle North Fork; and a .5 c.f.s. at the confluence with the South Fork of the 10 Mile.

VELOCITY – Velocity is slow to rapid throughout.

<u>BOTTOM</u> – Bottom is predominantly gravel, rubble, boulder to bedrock in the extreme headwaters. The bottom is extremely wide in certain sections--maybe 20 to 30 ft. Other sections narrow down to approximately 5 to 3 ft.

<u>SPAWNING AREAS</u> – Generally good; estimate 40 to 60% of the main stream is of value for spawning. Both forks--the South and the Middle forks--have less than 5% of their area of spawning value. The mid and upper sections of the main stream, or the North Fork as it is called, has fair to zero spawning area. The lower section of the main stream has the predominant spawning gravels of value.

<u>POOLS</u> – Pools are few and scattered in both of the South and Middle Forks, but in the main or North Fork many pools exist below jams and along undercut banks. The average dimensions of the these pools are 15 ft. long, 4 ft. wide and 3 ft. deep.

<u>SHELTER</u> – Shelter is fair to good, consisting of overhanging vegetation and log jams. Estimate 80% of the stream contains some form of shelter.

<u>BARRIERS</u> – A natural rock barrier 10 ft. high was noted 3/4 mi. below the headwaters. Along the stream there are considerable jams and potential barriers. There is a barrier of logs, debris and rubble approximately 10 ft. high about 1/2 mi. or so below the before-mentioned rock natural rock barrier.

DIVERSIONS – None observed.

TEMPERATURES – The stream temperature was 58°F; the air temperature for this date was 70°F.

<u>FOOD</u> – Food was notably absent in the mid and upper sections in area above the South and Middle Forks. This is believed due primarily to the silt observed in the stream bottom. The lower area below the Mid and South Fork is considered adequate in food supply which is primarily of mayfly larvae.

<u>AQUATIC PLANTS</u> – Aquatic plants noted in the lower section of the main stream. Profuse grasses lined both the South and the Middle Forks, choking much of the stream.

<u>WINTER CONDITIONS</u> – Winter conditions are believed to be relatively mild. The extreme bed width of the stream is approximately 20 to 30 ft. in places and about 4 ft. higher than the normal level. There is considerable evidence of extreme stream width at high water.

POLLUTION – None observed.

<u>SPRINGS</u> – Springs were scattered throughout Redwood Creek and its two tributaries. They were of an oozing consistency at this date and of no value.

FISHES PRESENT AND SUCCESS – Steelhead and/or rainbow trout were observed in the main or North Fork. They have a size range of from 1 in. to 10 in. and an average of 2 in. Abundance - was very scarce, - 5 to 10 fish per pool in this area. This is believed to be due to lack of food, silt and many jams. Very few fish were observed in either the South or Middle Fork tributaries; approximately 20 fish were observed in each of these streams. Below the South and Middle Fork tributaries, fish were observed in common abundance, 40 to 50 per pool; 35% of the total fish seen were believed to be silver salmon of a size of 1-1/2" to 3", with an average of 2", - steelhead and /or rainbow trout 65% average 2". Success was good; condition good; natural propagation, yes.

<u>OTHER VERTEBRATES</u> – Deer, frogs, raccoons, bears, ospreys, hawks and buzzards; snakes and lizards were observed throughout this Redwood Creek.

FISHING INTENSITY – None observed.

<u>OTHER RECREATIONAL USE</u> – Possible recreation, and obvious recreation, due to the number of bear and deer encountered, is hunting. Fishing is believed to be relatively light due to the dense vegetation but it is advised.

ACCESSIBILITY – Accessibility is generally an extreme problem. Access to the lower section of Redwood Creek can be obtained by going east from Fort Bragg on Sherwood Road, thence dropping down to Pudding Creek and traveling along Pudding Creek to a Mr. LeVally Ranch. Prior to arriving at his ranch, you will go through two locked gates, one a locked gate belonging Union Lumber Company and one a combination gate belonging to LeVally. It is advised to contact Mr. LeVally for information in this area as he is quite familiar with the new roads and the changes in the old roads. There are numerous forks in the road between his ranch and Redwood Creek and it is inadvisable for the author to describe them at this point. The old logging road is the only means of access to the lower section and to the South and Middle Fork of Redwood Creek. Beyond this, access is by foot and up possibly an old railroad bed that exists along about 70 to 80% of the stream. The extreme upper section of Redwood Creek, or the extreme headwaters, is accessible by leaving Fort Bragg out Sherwood Road, taking the Sherwood Road all the way to the Sherwood Peak, at the old mill site area, which is on your right and thence turning left at the mill site and following the main ridge road until you are even with the Redwood Creek drainage, thence following the nearest logging road and dropping down into Redwood Creek. A 4-wheel drive vehicle is heartily recommended. This access also will change with the winter conditions and rains and with possible new roads which are constantly being supplied.

<u>OWNERSHIP</u> – Ownership is believed to be entirely private, with logging permission and access by Union Lumber Company.

<u>POSTED OR OPEN</u> – The stream section is not posted but access routes are posted as to private ownership and by Union Lumber Company.

<u>IMPROVEMENTS</u> – None noted within the past 50 years outside of the lower access road and the upper access road; beyond this, an old logging railroad traversed 75 to 80% of its stream's length; along this are occasional cabins and houses.

PAST STOCKING - None known.

GENERAL ESTIMATE – Redwood Creek drains approximately 8 square mile into the South Fork of the Ten Mile and is an excellent water supply and has some spawning and nursery value in its lower and mid sections. Its two tributaries, the South and Middle Forks, are of poor spawning and nursery value. Redwood Creek wanders up through a narrow, steep-sided canyon, as do the two tributaries. The main stream has a rather mild gradient of approximately 5 to 8 ft. per 100. At the end of the area of fishery value, the gradient stair-steps in configuration with flats of 150 yards to 200 yards long and a gradient of about 8 ft. per 100. The step value is about 15 to 20 per 100. Beyond this, the gradient increases to a value of about 30 to 40 ft. per 100. The stream bottom is predominantly gravel with 20 ft. stream width in the lower section. The average depth is 2 ft., with a flow intermittent at this date. The average flow is 3.5 c.f.s. The velocity is slow to rapid. There was very little fish life seen above the two contributing tributaries called the South and Middle Forks. It is believed this is due to a series of jams and silt and lack of food in that area. Estimate 1 to 3 fish per pool in both of the contributing tributaries, as well as 1 to 3 in the North Fork or mainstream above these tributaries. The area below the tributaries has a good population of fish consisting of silver salmon 35% (of the fish seen) and steelhead and/or rainbow trout of 65% (of the fish seen) all averaging 2 in. in length. Occasional 10 in. steelhead and rainbow fish were observed. Food here is considered adequate in the mainstream though lacking in the other areas. A thick growth of willow and alder line the entire length of Redwood Creek, as well as occasional growths within the stream. This watershed was logged-over approximately 80 years ago. Recent vegetation is heavily competing with brush and related plants. An old logging railroad parallels 80% of Redwood Creek and also both tributaries. General access to this stream is difficult. The main access to the stream is by foot - no trails, no paths. The railroad is too far away from the stream to be of immediate value of stream observance due to some of the vegetation prevalent along the stream banks. Ownership is believed to be private and it is not known whether it is one or several individuals in ownership.

<u>RECOMMENDED MANAGEMENT</u> – I recommend that Redwood Creek be managed as a steelhead and/or rainbow trout and silver salmon spawning and nursery area and that all jams and barriers listed on the survey be removed to facilitate migration. The two tributaries south in the Middle Fork are of very little value but it is recommended they be managed in the same manner as the main stream.

This concludes this stream survey of Redwood Creek by Fish and Game Assistant, James Crowdus. REFERENCES AND MAPS - Union Lumber Co. Map 1954. US Dept. of Interior Geological Map Quad.