

STREAM SURVEY -- TRAMWAY GULCH

NAME OF STREAM - Tramway gulch            COUNTY - Mendocino

STREAM SECTION - From the mouth of Tramway gulch to line dividing sections 19 and 24.

LENGTH - 1-1/2 miles.

TRIBUTARY TO - Big River at T17N, R16W, NW 1/4 of NW 1/4 of S25.

OTHER NAMES - Tramway Creek

RIVER SYSTEM - Big River, Mendocino Co.

SOURCE OF DATA - Personal observation

EXTENT OF OBSERVATION - Four hours spent walking along stream on 8/5/66. Survey made by John L. Thomas, Fishery Biologist II.

RELATION TO OTHER WATERS - Tramway gulch is an important tributary of Big River. It contributes presently 1/2 mile of steelhead spawning and nursery area to the Big River watershed. It also contributes 2 cfs of 59° water during the summer months to Big River.

GENERAL DESCRIPTION

WATERSHED - Tramway gulch is located in a small "V" shaped canyon heavily covered at one time with dense stands of redwood and Douglas fir. Also, a few scattered tan oaks, madrones and broadleaf maples are present. The stream was first logged around 1875 when a railroad tramway went along the stream. The logging of second growth was started in 1962 when a road was pushed in from Two-log Creek. The second logging involved the complete removal of timber along the stream above a point 1/2 mile from the mouth. The logging road has also caused damage to the stream in the logged area. Soil appears to be the Hugo series, having sedimentary rock for parent material. It is highly erodable when the cover is removed.

IMMEDIATE DRAINAGE BASIN- 1-1/2 square miles of "V" shaped canyon discharging in a south-westerly direction. The channel is generally lense-shaped in the logged area where silt has filled in pools. In the 1/2 mile of timbered area by the mouth the stream is bowl shaped and meanders slightly. There is no streamside vegetation in the 1/2 mile above the mouth. Along the first 1/2 mile the stream is well shaded by stands of redwood. Some Douglas fir, tan oak and madrone also offer shade.

ALTITUDE - 115' at the mouth of Tramway gulch; 560' at its headwaters.

GRADIENT - The stream falls approximately 206 ' per mile, and would be considered moderate in gradient.

WIDTH - Riffles 2 ft.; Pools 4ft. along the first 1/2 mile of stream.

DEPTH - Riffles 2 in.; Pools 15in. along the first 1/2 mile of stream.

FLOW - At time of survey estimated at 2 cfs near mouth. Summer minimum flow would be less than 1 cfs. Winter maximum flow not known.

VELOCITY - Sluggish: Less than 1/2 ft. per second.

BOTTOM - Along the first 1/2 mile of stream above the mouth the stream bottom is in good shape. There is mostly fine and coarse gravel with some silt covering in pools in the upper areas. Detritus is also present in the pools. In the logging area above the first 1/2 mile the stream is filled with fine and coarse gravel mixed with silt, clay and logging debris. In most cases the stream runs under- with an occasional pool found in the main channel.

SPAWNING AREAS - The first 1/2 mile of stream is presently suitable for spawning steelhead.

POOLS- Average size is 4' x 5' wide x 15" deep. An occasional pool was seen 6' wide by 8' long by 2' deep. Pools are caused by log jams, digging action of the current, undercut banks, single logs wedged crosswise to the direction of stream flow, and a few scattered boulders and some bedrock. Most pools are a little longer than they are wide. Pool frequency is less than that of riffles; being about 1 to 2 in ratio. Shelter is adequate in the first 1/2 mile.

BARRIERS- This stream was cleaned by the Department; however, some debris is back in the stream. The first log jam is not presently a total barrier, but it may silt in soon. Its location is approximately 100 yds. above the mouth, and is marked by my business card attached to a stick in the middle of the jam. This jam is about 6' high and 20' long. The first complete total barrier is marked with another business card and is approximately 2-300 yards above the first jam. It is a very small jam but evidently stopped spawners as no fry could be observed above. It consists of some silted in logs that the adults apparently cannot pass over. Upstream from the total barrier about 1 block is a large log jam that is another total barrier. Here the water drops about 12 to 15 feet over a silted in jam. Above this point there are several small jams; however, this is in the logged area and the stream is intermittent throughout the area. Barrier removal and cleanup would add about 1/2 mile to the spawning and nursery area.

DIVERSIONS - None noted.

TEMPERATURES - Air 61°, water 59° at 1045.

FOOD - In unlogged area caddis larvae plentiful, mayfly and stonefly larvae also present. Surface feeding at time of survey. Mosquitos and Dyptra adults common in unlogged area.

AQUATIC PLANTS - Algae abundant in intermittent pools and riffle areas located in the logged area. Some algae present in the riffle areas continually exposed to the sun in the unlogged area. Algae would be considered abundant in the logged area and rare in the unlogged area.

WINTER CONDITIONS - Unknown due to exceptionally high winter rains during winter of 1965. Some debris removed from the stream by the Department of fish and Game was not placed completely out of the high water line and is now presently wedged into some of the log jams.

POLLUTION - None noted, other than logging and logging road damage.

SPRINGS - None noted.

FISHES PRESENT AND SUCCESS - Steelhead fry average 6 cm.. 3 to 4 per pool in upper areas. Usually 1-2 in the riffles in the upper areas. Near the mouth steelhead fry are more numerous (about 20 per pool or riffle). Probably just 1 or 2 spawners take care of the entire stream. There may be some drift of fry into the gulch from Big River as water temperatures are more suitable in Tramway gulch.

FISHING INTENSITY - None. OTHER RECREATIONAL USE - Hunting

ACCESSIBILITY - By main Union Lumber Co. logging road leaving Hwy. 20 at the headwaters of Two-log Creek. Through locked gate (key obtained from Union Lumber Co., Ft. Bragg) and down Two-log Creek to 100 yds. from mouth. Then cross Two-log Creek on bridge and follow road into Tramway Gulch. This road parallels the gulch for about 3/4ths-of-a-mile.

OWNERSHIP - Private, Union Lumber Co.

POSTED OR OPEN- Posted at locked gate. No signs past the gate. Most local residents have keys to the gate, and do not pay any attention to the signs. Union Lumber Co. has not enforced any trespass laws.

IMPROVEMENTS - Removal of log jams and barriers mentioned under "BARRIERS". Until removal of the barriers fry should be taken from the lower section near the mouth and placed in the pools above the barriers to make use of the now vacant nursery areas.

PAST STOCKING - None.

GENERAL ESTIMATE - Good trout stream in unlogged area. Severe damage in the logged area. Damage mainly caused by road pushing dirt into the stream, cover removal by logging, and logging debris in stream. Upper area will have to be cleaned again. The steelhead area can be increased by about - 1/2 mile either by barrier removal or artificial placement of fry each year above the barriers.

RECOMMENDED MANAGEMENT - This stream should only be managed for steelhead. Artificially introducing fry above the barriers would be recommended until the stream could be cleaned. The minimum water requirements needed to support the existing fishery is 1 cfs for the minimum summer flow.

REFERENCES AND MAPS - USGS 15' Comptche quadrangle, 1960 edition.

