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CALIFORNIA DEPARTMENT OF FISH AND GAME
STREAM SURVEY

FILE FORM No._____

NAME…HALLECK CREEK……..……..……..…….**COUNTY**..……Marin.....……..

STREAM SECTION…Entire....**FROM**. ....Mouth……**TO**……...…Headwaters……....**LENGTH**….4 mi...

TRIBUTARY TO....Nicasio Creek .....……..…….....**TWP**……**R**……**SEC**.....

OTHER NAMES.....……..……..**RIVER SYSTEM**…Papermill (Lagunitas Creek)….

SOURCES OF DATA……Marin Co. map, Calif. State Auto. Assoc. Mr. W. Irving.....……..

- **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**
  - **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 – A survey made on foot by Ron Regnart and Ken Middleton on 8/8/58 and 8/14/58 from mouth to vicinity of headwaters.

LOCATION – The stream lies in the center of Marin County, just before entering Nicasio Creek. It passes on the northern outskirts of the small town of Nicasio.

RELATION TO OTHER WATERS – It is a tributary to Nicasio Creek.

GENERAL DESCRIPTION - Watershed & Immediate Drainage: The lower one-half of this stream runs through hills with oak-grassland vegetation. Above this the stream flows through a more distinct "draw" with a steep north facing slope consisting of Douglas fir, Calif. bay, madrone and various brushes. In the headwater region (3 ½ miles from mouth) the creek runs through a steep canyon with a south facing slope of oak-chaparral-grassland and heavily forested north facing slope of bay, oak and interspersed conifers.

Altitude – Town of Nicasio has elevation of 177 ft.

Gradient – Moderate in lower stream, moderately steep in headwaters.

Width – 1 to 15 ft., average 6 ft.

Depth – 1 inch to 3 ft., average 6 to 7 inches.

Flow – trickle - .2 cfs (est.); average .1 cfs

Velocity - sluggish.

Bottom – Mostly bedrock near mouth, rest of stream had gravel-sand bottom predominantly except in headwaters which had a rubble bottom.

Spawning Areas – As a whole considered only fair for anadromous salmonids; good gravel beds extend for about a mile upstream of W. Irving Ranch but recent gravel mining has already spoiled some of this area; no spawning beds available near mouth or in headwaters for anadromous species.

Pools – Deep pools present in vicinity of headwaters (75% pools, 25% riffles). Rest of stream has small, interspersed pools.

Shelter – Good in vicinity of headwaters (veg. overhang, large boulders); fair in rest of stream.

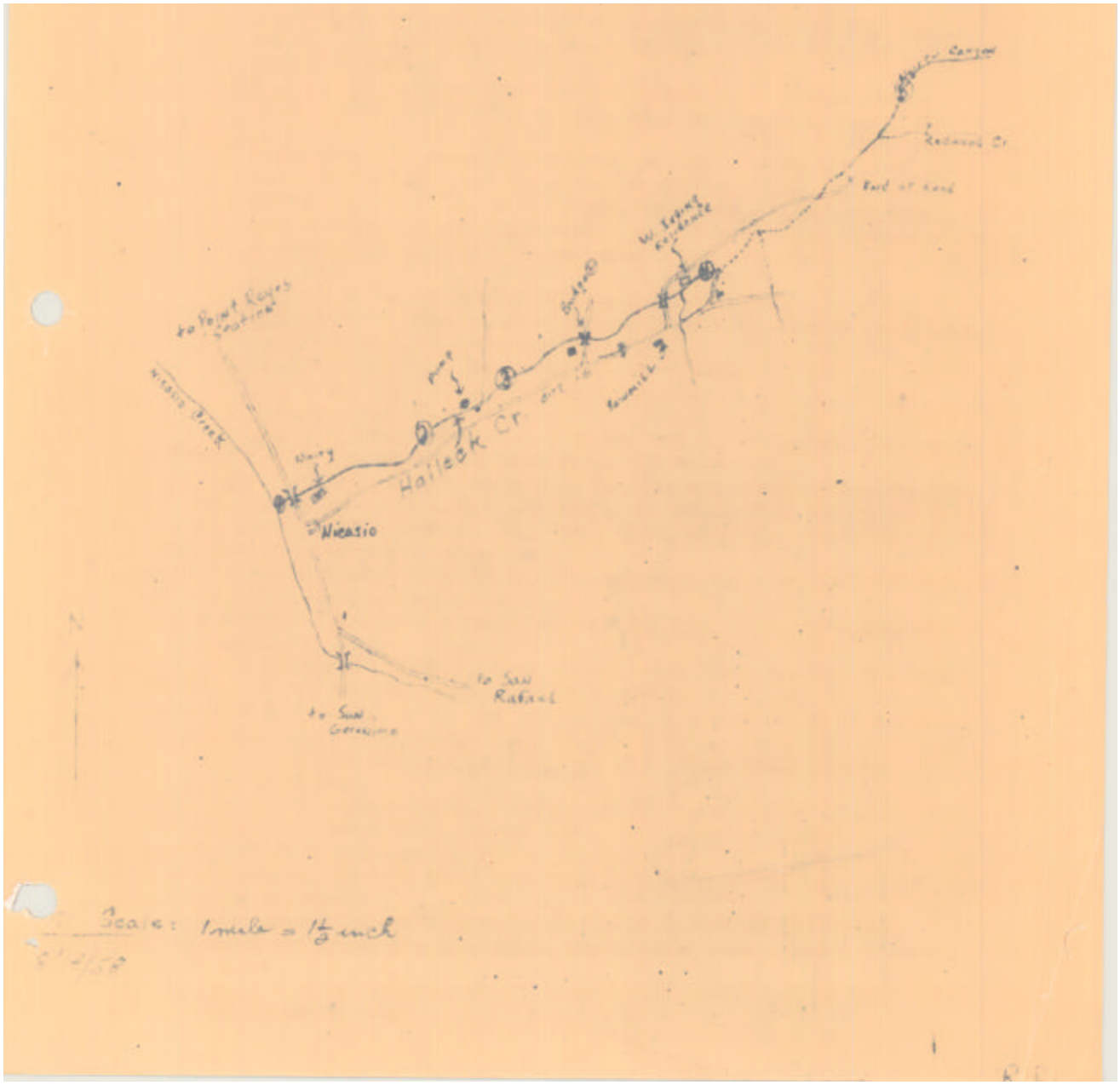
Barriers – No permanent barriers observed; there were large boulders and logs in headwaters that may clog and become permanent barriers in winter, but I don't believe headwaters to be very important spawning grounds for silver salmon or steelhead.

Diversions – Electrical pump approximately ½ miles below second bridge crossing, electricity on by pump not sucking water (or only a very small quantity), can pump directly out of stream.

Temperatures – Temperatures on lower stream are on the warm side for salmonids and can be expected to become warmer on hot days. Temperatures in headwaters very good for salmonids. Water temperature at Station (4) was the coldest encountered because this station was located about 70 yards downstream of the dry stream bed, seepage underground cooled the water.

Foods – Good, caddis fly and diptera larvae abundant, some mayfly numphs. Food organisms may appear overly abundant due to their concentration in such a small volume of water.
Aquatic Plants – Algae abundant, scarce in headwaters especially in open (warmer)areas, some watercress seen.
Winter Conditions – Great fluctuation; in winter of 1957-58 Irving stated that stream filled 35 ft. width (near his house) to 5 ft. depth.
Pollution – Area of dairy is probably a source of pollution from erosion and fecal matter.
Springs – Only a few small ones observed, probably many more in extreme headwaters.
FISHES PRESENT AND SUCCESS – Suckers (2-3 in.), roaches (1-3 in.) and sticklebacks (1 in.) were by far, the most numerous fishes in the lower 1 ½ - 2 miles these three species were present throughout the stream in riffles and in pools. Many "schools" of roach and suckers were seen numbering 30 to 50 individuals. Salmonids became increasingly numerous further upstream. Three seinings at the second bridge crossing with a hand-seine yielded 10 salmonids (these originally assumed to be SH but later samplings further upstream showed two different species – silver salmon and steelhead or rainbow trout. Therefore there is the strong possibility that the 10 salmonids represented the two species and about 40-50 rough fish. One seining at Station(4) yielded 30 salmonids (2-4") of which 2/3 of them were positively identified as silver salmon and 1/3 steelhead trout (rainbow trout); only 3 rough fish were in the total fish seined. In vicinity of headwaters (above the one mile stretch of dry stream bed) only rainbow trout were found. At least 5-6 small trout (1-2") per hole were seen. Some 6"-7" trout were also observed. All trout and salmon observed were in good condition. Some of the suckers and roaches had ecto-parasites.
OTHER VERTEBRATES – One Great Blue Heron flushed from lower stream. Many deer seen in the evenings feeding along stream and on hillsides. All were does and most had a fawn beside them; 3 deer skeletons found in stream bed.
FISHING INTENSITY – Closed to winter fishing. Summer trout fishing – intensity not known.
ACCESSIBILITY – No roads or trails to headwaters. A good dirt road parallels the lower stream from Nicasio for about three miles upstream.
OWNERSHIP – Private ownership.
POSTED OR OPEN – All property which access roads pass is posted.
IMPROVEMENTS –
PAST STOCKING – No previous stocking as far as I know.
GENERAL ESTIMATE – Halleck Creek has a fair population of trout (steelhead) and silver salmon, most of silver salmon found between Station (3) and Station (4); a good trout population (1½ " – 7") exists in headwaters. Because of low flow at this time of year the fish are concentrated in larger holes, low flow and/or high water temperature are probably limiting factors for salmonids. Construction of proposed Nicasio Reservoir and Dam will block entrance of anadromous fishes.
RECOMMENDED MANAGEMENT – The stream should be managed for anadromous fishes as long as they are able to make spawning runs. Catchable plantings should be frowned upon mainly because of posted land.
SKETCH MAP – Prepared and attached.
REFERENCE – Marin Co. map (Calif. Auto. Assoc.); Mr. W. Irving, property owner stated that the stream never goes dry adjacent to his house. He further stated that 2-3 runs of steelhead used to come up Halleck Creek and in the last 6-7 years only one run occurs. He said that silver salmon are the dominant fish now; he has seen salmon digging redds in stream near his house.

RR:cd



Scale: 1 mile = 1/2 inch