

CALIFORNIA DEPARTMENT OF FISH AND GAME

STREAM SURVEY

FILE FORM No. \_\_\_\_\_

NAME.....CASPAR CREEK.....COUNTY.....Mendocino.....

STREAM SECTION.... Entire.... FROM. ....Mouth.....TO.....Headwaters.....LENGTH....4 Mi.....

TRIBUTARY TO....Not a tributary; flows into Ocean.....TWP...17N... R...18W...SEC.....1

OTHER NAMES....Not known.....RIVER SYSTEM.....Caspar Creek.....

SOURCES OF DATA...Observation of stream and interviews with logging and forestry personnel...

- 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
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  - Diversions
  - Temperatures
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- FISHES PRESENT AND SUCCESS
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EXTENT OF OBSERVATION - On 13 September 1965, Caspar Creek was surveyed by E. R. J. Primbs on foot from mouth on shore of Pacific Ocean to a point in headwaters area .8 mile above concrete dam, a total distance of 7.3 miles, including .5 mile up the South Fork, the mouth of which is at the end of the paved road, at a junction of three roads, and which tributary also has a concrete dam.

LOCATION - - Caspar Creek flows into the Pacific Ocean at the bridge crossing of Caspar Creek by Highway #1 at the southern city limits of the Village of Caspar. The bridge is identified by the road sign "Caspar Creek." A new bridge over Caspar Creek is under construction just east of Old Bridge.

RELATION TO OTHER WATERS Provides 5.5 miles of excellent spawning grounds and 3.5 miles of poor nursery areas for SS and SH immediately adjacent to Ocean waters

GENERAL DESCRIPTION - Watershed and Immediate Drainage Basin - Size: 5.6 square miles; Caspar Creek flows from scattered springs along its entire course and from springs of origin on an elevation near Little Lake Road; the direction of flow is southwest for about 2 miles, south for 1 mile, thence approximately west for 4 miles; logged by Pile in 1961, Erickson in 1962, Gray in 1963 and Clek in 1964; current logging by H. J. Gray (Morris Delany, Supervisor). In section of South Fork (see attached map); a 60 degree-70 degree sloped narrow U-shaped valley at mouth, with 100 foot wide floor, gradually narrows to a 50 degree-70 degree sloped V-shaped canyon, 15 feet wide, at headwaters; streambanks are shallow, two feet to four feet high; stream

shade, 100 per cent at mouth from alder thickets diminishing to 30 per cent in logged areas, but generally about 70 per cent from trees and narrow canyon effect; red alder and red berry elder dominant along streambanks with redwood common on slopes and in upper areas along stream; blackberry, nettle, sword fern, and lace fern very abundant.

Altitude - At mouth sea level, at upper fish value 400 feet.

Gradient - Fifty-nine feet per mile to upper fish value.

Width - Average 10 feet with range from 3 feet to 30 feet.

Depth - Average 5 inches with range from 2 inches to 6 feet, or more.

Flow - 2.0 cfs. at mouth at Old Bridge of Highway #1; .6 cfs. at South Fork; .2 cfs. At concrete dam on main stream; dry at upper fish value.

Velocity - Sluggish to slow.

Bottom - Section 1 (from mouth to first south tributary) sand and mud. Section 2 (from first south tributary to Department of Fish and Game fish counting station) sand 50 per cent, fine gravel 50 per cent. Section 3 (from fish counting station to southwest bend of stream) coarse gravel 45 per cent, fine gravel 40 per cent, sand 15 per cent. Section 3 (from southwest bend of stream to upper fish value,.8 mile above concrete dam) coarse rubble 25 per cent, fine rubble 30 per cent, coarse gravel 25 per cent, fine gravel 15 per cent, sand 5 per cent. Two feet of mud deposited on streambed below concrete dam on main stream.

Spawning Areas - Section 1 (from mouth to Department of Fish and Game fish counting station) negligible. Section 2 (from fish counting station to southwest bend of stream) 70 per cent of winter bed (121,800 square feet). Section 3 (from southwest bend at south-west bend to upper fish value, .8 mile above concrete dam, and South Fork) 15 per cent of winter bed (8,700 square feet).

Pools - Because of abnormally slight gradient, pools not distinguishable from stream cover

Shelter - Deep holes, undercut banks, logs: adequate.

Barriers - Partial, No. 1--12 small log jams, most of which are in headwaters area, only 3 being below South Fork, and many of these caused by alder windfalls collecting debris. No. 2--2 structural remnants, one at mouth below Old Bridge of Highway #1 and other below Department of Fish and Game fish counting station. No. 3--2 concrete weir dams, 8 feet high at spillway, one on main stream in headwaters area, the other on South Fork.

Diversions - No. 1--water from lagoon used for road construction by Parker and Company. No. 2--at new bridge construction, water used to cure cement: water returned to stream. No. 3--at South Fork: 500 gallon tanker for logging by Gray; portable pump; 2 inch fire hose.

Temperatures - Maximum at South Fork at 1315 on 13 September 1965: water 62 degrees Farenheit, air 68 degrees Farenheit; weather clear, wind 4 to 7 miles per hour (light); altitude 80 feet.

Food Scarce: mayfly nymph: 3 per square foot. Stonefly nymph: 3 per square foot. The lack of summer riffle area does not favor the deposition of insect eggs in stream.

Aquatic Plants - Unidentified water plants at mouth; moss in shaded areas.

Winter Conditions - Four feet to five feet above summer level; tidal action also affects water level for a considerable distance.

Pollution - Soil from road construction below concrete dam on main stream.

Springs - Scattered along entire course.

FISHES PRESENT AND SUCCESS - No. 1--SS (size one and one-half inches to three inches, average two and one-fourth inches) 55 per 100 feet. No. 2--SH (size one and one-half inches to two inches, average one and three-fourths inches) 20 per 100 feet. No. 3--three-spined stickle-back (three-fourths of an inch to two inches) 65 per 100 feet. One hundred and seventy fish were netted, enumerated, examined for size, and identified. Of these 63 were silver salmon parr, 33 were steelhead parr, and seventy-four were three-spined stickleback, young and adults. The steelhead were, as usual, of smaller size than the silver salmon, but the average sizes of both were below normal, the heads of some being out of proportion.

OTHER VERTEBRATES - Frogs.

FISHING INTENSITY - Caspar Creek is closed. No poaching reported.

OTHER RECREATIONAL USES - Not known.

ACCESSIBILITY - No. 1--Accessible at mouth by Highway #1 at the bridge crossing of Caspar Creek by Highway #1 at the southern limits of the Village of Caspar. The bridge is identified by road sign "Caspar Creek." No. 2-- Accessible from Department of Fish and Game fish counting station, one and one-half miles upstream from mouth, to the concrete dams in headwaters area of main stream and on the South Fork by the Division of Forestry road, branching off of Caspar Road in a southeast direction, 1.2 miles east of Caspar.

OWNERSHIP - The principal owner is the State of California acting as the Jackson State Forest.

POSTED OR OPEN - Closed to fishing.

IMPROVEMENTS - No. 1--Removal of two structural remanents, one at mouth of the end of road to beach area, below Old Bridge of Highway #1, the other 150 yards downstream from the Department of Fish and Game fish counting station. No. 2--Removal of 10 small log jams be-tween fish counting station and concrete dam on Caspar Creek proper.

PAST STOCKING - Not known.

GENERAL ESTIMATE - Caspar Creek has received considerable attention as a silver salmon-steelhead stream: special studies by Humboldt, water studies by Forestry, Water, Fish University agencies, an elaborate \$50,000 structure by the Department of Fish and Game, and closure to all fishing. Undoubtedly, much of this attention has been aroused by extensive spawning grave 1, which Caspar Creek enjoys; but unfortunately, too little attention has apparently been given to the nursery capabilities of the stream, to the rate of growth of the parr, to the health and vigorousness of the fingerlings: A--The summer waters in not highly oxidized, B--the food is scarce, C--the temperature in certain sections, that have been logged, is abnormally high for area, D--the gradient is very slight, E--large numbers of sticklebacks are populating stream and competing with salmonids for the available food, F--low summer flow in upper area, G--significant portion of stream underground with occasional pools only in upper area. Thus, it is the impression of this writer that Caspar Creek has in the past been overvalued as a producing farm. In comparison, Little River, a creek of the same area, which has limited spawning gravel but a habitat balanced for both hatching and rearing, is much more successful in production in both number of parr per mile of -stream and in rate of growth of parr. The opinion was expressed by the Division of Forestry, Fort Bragg, that Caspar Creek is too clean of logs, which are needed for pool formation. Moreover, cleaning the stream of all debris causes a digging action which in turn causes undercutting of alders which fall into stream. This opinion is obviously self-conflicting, and surely what Caspar Creek needs is not pool formation but riffle formation. It is not suggested that a minor stream clearance program for Caspar will eliminate its problems of production, which are to a large extent topographical. Such a program will, however, aid in eliminating the gravel covering the summer flow, increase summer velocity, and thus lower summer water temperatures, all favoring insect egg maturation, factors which will become all the more significant as a process of denudating the area by logging continues.

RECOMMENDED MANAGEMENT - Caspar Creek should be managed for silver salmon and steelhead spawning and nursery. The two structural remanents and the 10 small log jams should be removed for reasons already given above.

SKETCH MAP - See attached.

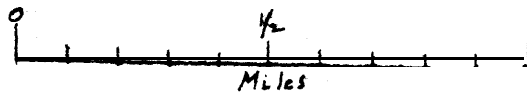
REFERENCES AND MAPS - No. 1--U.S.G.S. (Mendocino) 71/2 series (1960). No. 2--U.S.G.S. (Comptche) 15 minute series (1960). No. 3--Division of Forestry--Mendocino Ranger Unit (1950)..

Edward R. J. Primbs/bg-9/14/65

Typed November 24, 1965.

# Caspar Creek

(Section: From South Fork To Headwaters)



Scale: 1/24,000

