

THE RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF FISH AND GAME

STREAM SURVEY

Date: July 17, 1978

NAME: WALKER CREEK COUNTY: Mendocino

STREAM SECTION: Partial FROM: Walker Lake TO: headwaters-north of Irene Peak LENGTH: 2 mi.

TRIBUTARY TO: Forsythe Creek thence Russian River TWP: 17 N R: 13 W SEC: 21NW ¼, MDBM

OTHER NAMES: Unknown RIVER SYSTEM: Russian River

SOURCES OF DATA: Personal observation of Weldon Jones, Asst. Fishery Biologist, and Jerry Irwin, Warden

<p>EXTENT OF OBSERVATION Include: Name of Surveyor, Date, Etc.</p> <p>LOCATION</p> <p>RELATION TO OTHER WATERS</p> <p>GENERAL DESCRIPTION</p> <p>Watershed</p> <p>Immediate Drainage Basin</p> <p>Altitude (Range)</p> <p>Gradient</p> <p>Width</p> <p>Depth</p> <p>Flow (Range)</p> <p>Velocity</p> <p>Bottom</p> <p>Spawning Areas</p> <p>Pools</p> <p>Shelter</p> <p>Barriers</p> <p>Diversions</p> <p>Temperatures</p> <p>Food</p> <p>Aquatic Plants</p> <p>Winter Conditions</p> <p>Pollution</p> <p>Springs</p> <p>FISHES PRESENT AND SUCCESS</p> <p>OTHER VERTEBRATES</p> <p>FISHING INTENSITY</p> <p>OTHER RECREATIONAL USE</p> <p>ACCESSIBILITY</p> <p>OWNERSHIP</p> <p>POSTED OR OPEN</p> <p>IMPROVEMENTS</p> <p>PAST STOCKING</p> <p>GENERAL ESTIMATE</p> <p>RECOMMENDED MANAGEMENT</p> <p>SKETCH MAP</p> <p>REFERENCES AND MAPS</p>

EXTENT OF OBSERVATION-This portion of the stream was surveyed on July 17, 1978. Frequent vehicle stops were made on the access road paralleling the stream for close inspection of the stream on foot.

RELATION TO OTHER WATERS-Provides an important source of water to Walker Reservoir and Forsythe Creek.

GENERAL DESCRIPTION -

Watershed & Immediate Drainage Basin-Walker Creek is a small drainage of 5 square miles in size located in the headwaters of the Russian River drainage. The topography is coastal mountains. The immediate stream drains in a southeasterly direction, coursing through a moderate V-shaped canyon to enter Walker Valley and converge with Forsythe Creek. The drainage is about 6 miles south of Willits. Soils appear to be prone to slides. The vegetative cover was that of a broken conifer (fir and redwood), oak, madrone, and grassland. Manzanita and Ceanothus were present on some of the more open southerly slopes. In general, streamside vegetation was that of the adjacent slopes. However, redwood was an exception appearing more prevalent in the bottom of the canyon near the stream.

Altitude-Headwaters-2,000 feet; mouth about 1,200 feet.

Gradient-Overall, 160 feet per mile.

Width-Range 1 to 12 feet wide, averaging 3 feet.

Depth-Range 2 inches to 2 feet, averaging 4 inches.

Flow-Estimated to be 1/10 cubic foot per second (CFS) at the falls, 1/4 CFS immediately above the Girl Scout camp near

tributary C (see attached map). Tributary A-one gallon/ minute, tributary B-dry, tributary C-see page only.

Velocity-Generally rapid (more than 1/2 foot per second). The flow between tributary C and the lake was spread out across a broad grassy expanse with no defined stream channel.

Bottom-Generally gravel 80%, with some sand and sediment 10%, rubble made up about 10% of the stream channel. Some boulders and bedrock (sandstone) were observed in small quantities.

Spawning Areas-Gravels were loose and of an excellent size for spawning (1/2 to about 2 inches); however, some sediment in the form of sand was present, particularly in tributary A. The gravel immediately below the falls was considered near excellent for spawning purposes.

Pools-4 to 30 feet long, 1 to 15 feet wide and 1 inch to 2 feet deep. The pool to riffle ratio was 1 to 3, respectively.

Shelter-Generally adequate above tributary C. The grassy area below this tributary provides little in the way of shelter or habitat. The canopy between tributary C and the falls was about 75% complete and appeared to be in the process of slow restoration after past logging. This canopy, in the form of streamside trees and vegetation, provided shade holding stream temperatures already marginal (70°F - 1300 hours) to trout to a usable level. Undercut banks also provided shelter for fishlife in the stream.

Barriers—The falls in the SW 1/2 of the SW 1/4 of Section 12, T 17 N, R 14 W was a complete barrier to trout. No trout was observed upstream although habitat was available. The falls were of bedrock (sandstone) and 25 to 30 feet high. Diversions: A paving company was observed drafting water, filling a tanker truck for road grading purposes on a subdivision project on the north rim of the drainage. The water impounded in the reservoir does not appear to be used for purposes other than recreation.

Temperatures—70°F 1/2 mile upstream of the falls, at the base of the falls and near tributary A. The temperature of tributary A was 57°F. Air temperature near tributary A was 102 at 1300.

Aquatic Plants—Some filamentous algae near tributary C.

Winter Conditions—High water marks along the stream indicate winter flows reach levels 5 to 8 feet above summer levels.

Pollution—Cattle grazing appears heavy in the drainage. Numerous intersecting trails have led to bank slumps and disturbance of the streambed. Trash was observed near the Girl Scouts camp.

Springs—None observed.

FISHES PRESENT AND SUCCESS—Rainbow trout populate the area between the falls and tributary C, a distance of 3/4 mile. Visual estimates of numbers indicate the presence of about 50 fish per 100 feet of stream. No other species was observed. It is believed these fish are remnants of the steelhead that once used Walker Creek prior to the construction of Walker Reservoir. It is remarkable that this fish survived the drought of 1976 and 1977. The majority of the fish are 1 1/2 to 4 inches long; however, one fish of about 10 inches was observed at the confluence with tributary B.

OTHER VERTEBRATES—~~Western~~ Roughskin newts, deer and cattle.

FISHING INTENSITY—Unknown.

OTHER RECREATIONAL USE—Camping by Girl Scouts and hunting.

ACCESSIBILITY—Accessible via dirt roads from Baechtel Creek and through Walker Valley. The access road parallels the stream.

OWNERSHIP—Private and posted.

IMPROVEMENTS—None observed.

PAST STOCKING—Unknown.

GENERAL ESTIMATE—Walker Creek, upstream from the reservoir, supports a small population of rainbow trout (approximately 2,000) which are believed to be a remnant of the anadromous steelhead that once frequented the area. This population appears to be limited to a 3/4 mile section between a natural bedrock falls on the upper end and grassy expanses, lacking a clear channel and canopy on the downstream end near the reservoir. Further habitat problems included low streamflow and marginally high summer water temperatures. Assets included good spawning gravel and an increasing canopy of vegetation, one which appears to be improving as the time after the last timber cut lengthens.

RECOMMENDED MANAGEMENT—The area surveyed should be managed as a resident trout spawning and rearing area to retain this population; it is very important that the streamside canopy be retained undisturbed. It is equally important that erosion and sedimentation be held to a minimum. In this regard disturbance of the stream by cattle must be stopped. It is suggested that the use of the reservoir be reviewed. Project impacts were not mitigated for when constructed. Therefore, if not in current use, removal should be evaluated.

SKETCH MAP—See attachment.

REFERENCES AND MAPS—U.S.G.S. Willits 15 minute series, 1961.