THE RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF FISH AND GAME

STREAM SURVEY

Date: August 16, 1977

NAME: Gilman Creek [(Gilliam Creek)] **COUNTY:** Sonoma

STREAM SECTION: partial **FROM:** mouth **TO:** 2.7 mi. upstream from the mouth **LENGTH:** 3.4 mi.

TRIBUTARY TO: East Austin Creek **TWP:** 8N **R:** 11W **SEC:** 2

OTHER NAMES: none known **RIVER SYSTEM:** Russian

SOURCES OF DATA: Personal observation

EXTENT OF OBSERVATION - Gilman Creek was surveyed on foot from its mouth to 2.7 miles upstream by Valli Boccone and Howard Cunningham on August 16, 1977.

LOCATION – Gilman Creek lies in western Sonoma County, entering East Austin Creek approximately 4.5 miles upstream from the confluence of East Austin Creek and Austin Creek. This creek lies within the Austin Creek State Recreation area.

RELATION TO OTHER WATERS – Gilman Creek provides spawning and nursery habitat for steelhead and silver salmon. It also provides winter and early summer flow to East Austin Creek.

GENERAL DESCRIPTION - Watershed – Gilman Creek flows through a steep mountainous canyon. The vegetation in the drainage area is dominated by various types of oak trees and annual grass. In the upper mid–section small stands of redwood are present. Other vegetation observed was Douglas fir, Calif. laurel, red alder, wild azaleas, fern, wild grape, poison oak, and berry bushes.

Immediate Drainage Basin – The drainage basin is approximately 3.9 square miles. The stream flows in an easterly direction through a V-shaped canyon. The stream channels are generally shallow and wide with the exception of the upper 0.8 miles surveyed. The channels in this area are narrow and the bottom substrate is dominated by surpentine boulders. Three large slides were observed in the upper 0.5 miles (see sketch map). Streamside vegetation is common, providing approximately 50% canopy. Vegetation includes all the vegetation listed above along with Equisetum and sedges.

Altitude – Mouth: 200' MSL, Headwaters 1100' MSL.

Gradient – The gradient was slight in the lower 1.7 mile section and moderate to steep in the upper 1.0 mile section surveyed. The gradient of Gilman Creek from the mouth to the headwaters is 4.5 ft per 100 ft.

Width – Average - 8 feet; range 3 ft - 40 ft.

Depth – Average - several inches; range - less than 1 inch to 5 feet.

Flow – The upper 1 mile surveyed had a continuous flow of less than 0.1 cfs, however, several short sections were intermittent. The lower 1.7 miles was dry with the exception of several small stagnant pools (2 pools per 1000 feet).

Velocity – Velocity was sluggish to moderate.

Bottom – Lower 1.9 mile bottom substrate consisted of 2% bedrock, 13% boulder, 25% rubble, 45% gravel, and 15% silt, sand and detritus. Upper 0.8 miles consisted of 5% bedrock, 30% boulder, 35% rubble, 15% gravel, and 15% silt, sand, and detritus.

Spawning Areas – An estimated 40% of the area surveyed is considered good spawning gravel. The gravel appeared moderately loose with some silt present in all areas.

Pools – Pools were created by boulders, bedrock, and undercut banks. The frequency of pools was good, pool to riffle ratio was 7 to 3 in the upper 1 mile section surveyed. The average size pool was 8'x15'x2'.

Shelter – Shelter was provided by boulders, undercut banks, and roots. Canopy provided an average of 50% cover.
Barriers – Partial Barriers - One 4' high cement bag dam is located 0.2 miles from the mouth. 7 small log jams were observed (see sketch map); one 5' rock fans is located 0.3 miles upstream from the confluence of Gilman Creek and Schoolhouse Creek; and one 8' rock falls is located 0.4 miles upstream from the confluence of Gilman Creek and Schoolhouse Creek. **Complete Barriers -** Steep gradient in the upper 0.4 miles surveyed together with large surpentine boulders creates a complete barrier to anadromous fish.
Diversions – none observed
Temperatures – Upstream 0.6 miles from the confluence of Gilman Creek and Schoolhouse Creeks A.T. 81°F., W.T. 63°F. at 1630. Below confluence of Schoolhouse Creek. A.T. 68°F.; W.T. 64°F. at 1300.
Food – Caddisfly and stonefly larvae, water striders, and aquatic beetles were common.
Aquatic Plants – Streamside mosses, sedges, equisetum, and instream filimentous green algae were common.
Winter Conditions – This creek is subject to heavy winter run-off. The average rainfall is 50 inches. Channels ranged from 1' to 10' high and 10' to 60' wide.
Pollution – none observed
Springs – Several springs were observed in the upper 0.6 miles surveyed.
FISHES PRESENT AND SUCCESS – California roach, 20 per 100 ft. where water surfaced from the mouth to the confluence of Schoolhouse Creek, 1/2 - 2 inches. Steelhead, 5 per 100 ft. from 0.3 miles downstream from the confluence of unnamed tributary S-2 to the upper fish limit, 2-4 inches. A 1962 survey reported juvenile silver salmon in Gilman Creek along with the fish listed above, but none were observed during the current survey.
OTHER VERTEBRATES – Yellow legged frog, newts (Tericha sp.), skinks (Scincidae sp.), Western fence lizard (Sceleporus sp.), deer, stellar jays, turkey vultures, and kingfishers. Evidence of ferral pigs was observed.
FISHING INTENSITY – Light
OTHER RECREATIONAL USE – A horseback riding and trail parallels the creek in the mid-section.
ACCESSIBILITY – Accessible at the mouth and mid-section by the Park-owned dirt road which begins at Armstrong Grove State Park, where a key to the gate may be obtained, and runs through the recreational area (See sketch map).
OWNERSHIP – State Park
POSTED OR OPEN – Open, but no vehicular traffic allowed.
IMPROVEMENTS – Removal of log jams and stabilization of slide areas within the drainage would be beneficial.
PAST STOCKING – unknown
GENERAL ESTIMATE – Gilman Creek provides spawning and nursery habitat for steelhead and silver salmon. The creek in previous years has been reported to provide year-round flow to East Austin Creek. Lack of flow and nursery habitat in the lower 1.7 mile of stream is due to the extremely low rainfall since 1975. High percentages of silt and sand in some areas maybe affecting the quality of spawning areas.
RECOMMENDED MANAGEMENT – This creek should be managed as a steelhead/silver salmon spawning and nursery habitat.
SKETCH MAP – attached
REFERENCES AND MAPS – USGS, Cazadero, Calif. 1943 Quad., 7½ minute series.

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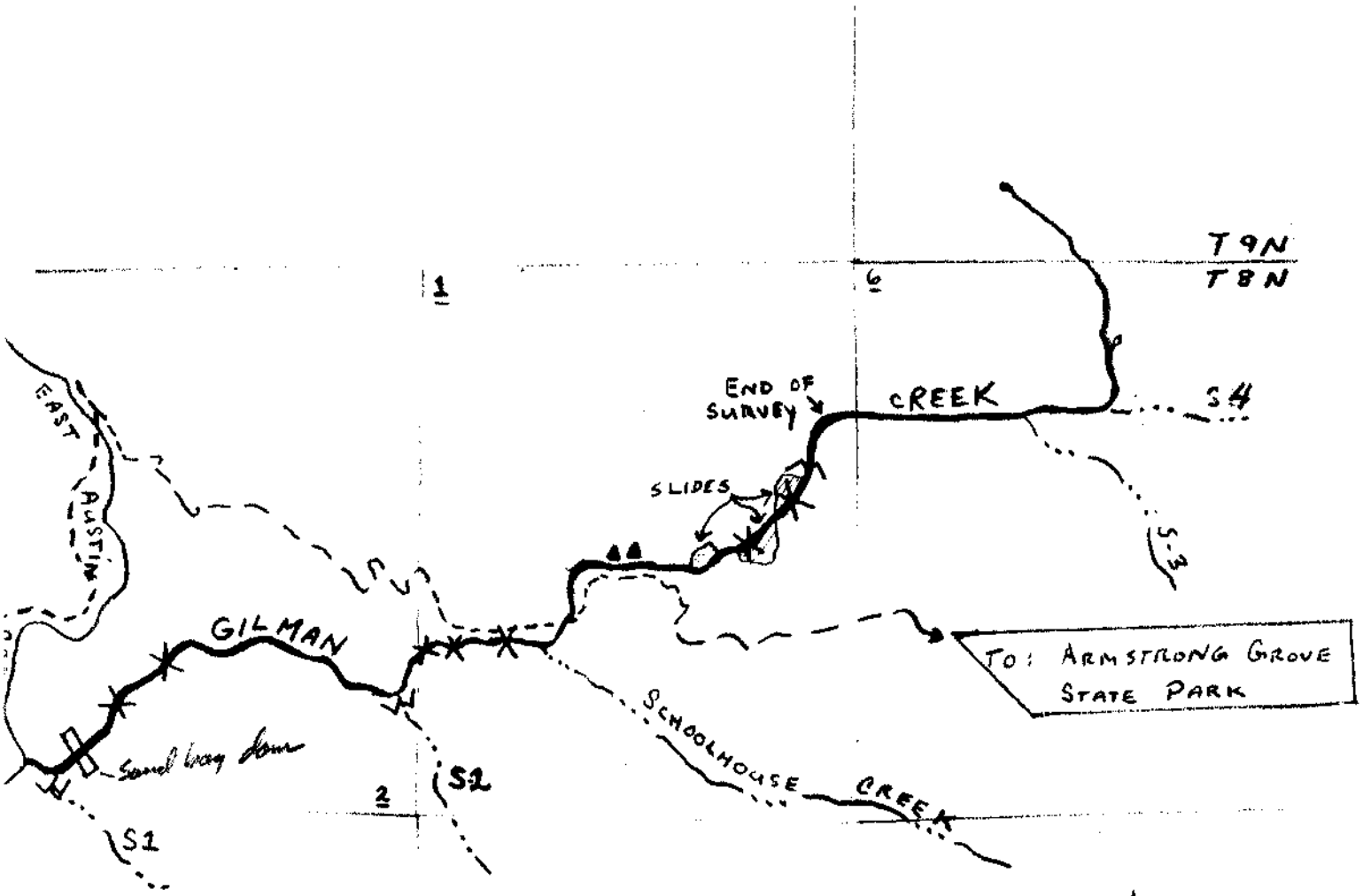
Region 3
AWB/kls

GILMAN CREEK

T8N, R11W, Sec 2.



LEGEND

PAVED ROAD ====
UNPAVED ROAD ----
UPPER FISH LIMIT }
UNNAMED TRIBUTARY N-1
FALLS ▲
LOG JAM X
BUILDING ■
LOCKED GATE ●
DIVERSION →
SECTION NUMBER 4