California Department Of Fish And Game

STREAM SURVEY

				Date: 8-24-6	5
NAME: Little	Sulphur Creek			COUNTY: Sonoma	a
STREAM SECTION:_	Entire FROM: Mouth	_To:	Headwaters	LENGTH: 28½ m	ıi.
TRIBUTARY TO:	Big Sulphur Creek			TWP: R: SEC:_	
OTHER NAMES:	Unknown		RIVE	R SYSTEM: Russian Rive	er
SOURCES OF DATA:	Personal Observation [by B	Foxl			

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 Shelter Barriers Diversions Temperatures

OTHER VERTEBRATES
FISHING INTENSITY
OTHER RECREATIONAL USE
ACCESSIBILITY
OWNERSHIP
POSTED OR OPEN
IMPROVEMENTS
PAST STOCKING
GENERAL ESTIMATE
RECOMMENDED MANAGEMENT
SKETCH MAP

REFERENCES AND MAPS

Springs FISHES PRESENT AND SUCCESS

Aquatic Plants Winter Conditions

Pollution

EXTENT OF OBSERVATION - Entire length of the Creek was surveyed on foot and by car. A distance of 28.5 miles, on July 14, 15, 1965 by B. Fox.

LOCATION - Stream enters Big Sulphur Creek approximately 5 miles east of Cloverdale on the Cloverdale-Geyesers Road. RELATION TO OTHER WATERS - This creek is the most important tributary to Big Sulphur Creek in that it supplies a year-round flow.

GENERAL DESCRIPTION -

<u>Watershed</u> - Primarily fir-oak type forests in sharply defined drainage with rocky-clay soil.

Immediate Drainage Basin - Stream drains approximately 50 square miles. Steep-sided V-shaped basin at the headwaters, U-shaped canyons in the middle section. This stream discharges in a north-westerly direction. The channel varies from "incised" at top to "lense-shaped" and "meandering" at the lower end.

Altitude - 700 feet-mouth. 2100 feet-headwaters.

Width - Four feet to 40 feet, average 10 feet.

Depth - Three inches to six feet, average one foot.

Flow - One and one-half to two cfs.

Velocity - Rapid. (More than ½ feet/second.)

Bottom - Stream bottom composed primarily of gravel, rubble, sand, 35 per cent gravel, 35 per cent rubble, 25 per cent sand, 5 per cent silt.

 $\frac{\textbf{Spawning Areas}}{\textbf{stream.}} \textbf{ -} \textbf{Good spawning areas ranging throughout} \\ \textbf{stream.} \textbf{ There are only a few areas where the fish cannot spawn}$

due to heavy concentration of clay.

Pools - Good pool riffle relationship (50 per cent: pool, 50 per cent riffle.)

<u>Shelter</u> - Good shelter, overhanging branches, undercut banks, boulders, and logs.

Barriers - Only partial barriers noted. No problem at present time.

<u>Diversions</u> - None noted.

Temperatures - Stream temperature was 70° throughout stream length.

<u>Food</u> - Excellent food in stream; caddis fly, stone fly, mosquito larvae, 50-75 organisms per square feet.

Aquatic Plants - Scarce.

Winter Conditions - Stream subject high water.

Pollution - None noted.

Springs - Abundant, 1.2 per mile.

FISHES PRESENT AND SUCCESS - Large quantities of fish present-trout, roach,

stickleback, squawfish, suckers.

Trout - 100 per 100' section in upper area. Fifty per 100 foot in Lower area. Roach - 10 " " " " " " " " " " " " " " " " " "

Squawfish - 5 per 100' section in upper area. Fifty per 100 feet in lower area.

Middle area - 75 trout/100 feet. Estimated from; upper and lower fish counts. Number of fish estimated by braille seining and eye count. Estimated total number of trout for entire stream length - 112,860.

FISHING INTENSITY - Unknown.

OTHER RECREATIONAL USE - Slight hunting by landowners and people with permission. ACCESSIBILITY - Accessible by one county road which crosses stream in upper area and also by jeep to hunting roads in middle and lower area.

OWNERSHIP - Private.

POSTED OR OPEN - Posted along entire stream length.

IMPROVEMENTS - The removal of rough fish in the lower section.

PAST STOCKING - None.

GENERAL ESTIMATE - The warm water in the lower section seems to promote rough fish rather than trout. This stream is important as a spawning and nursery area for trout. RECOMMENDED MANAGEMENT - Removal of rough fish in lower 5 mile section. Possible planting of trees to shade stream to help keep water at more desirable temperatures. **SKETCH MAP -** See attached.

REFERENCES AND MAPS - United States Geological Survey Maps, Quadrangles - The Geysers & Asti, California.

B. Fox/ls

11/4/65

TO: Fred Meyer

<u>In Reference to</u>: Refining and completing B. Fox's report on Little Sulphur Creek.

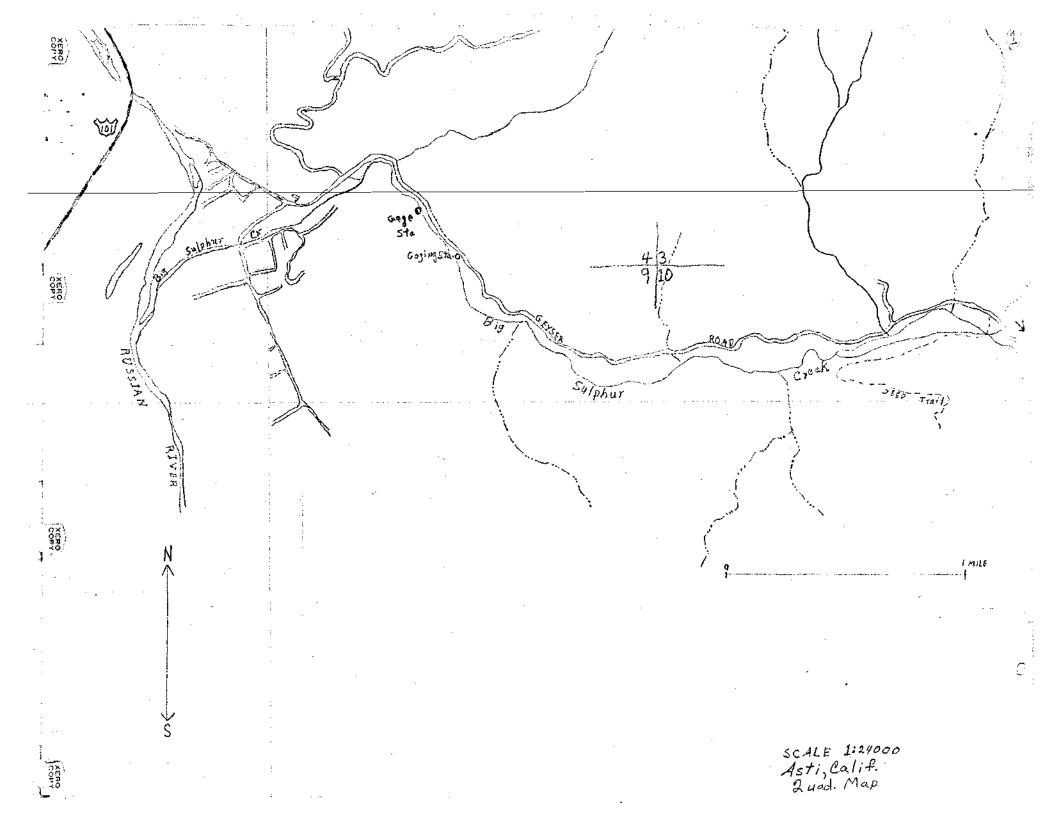
- 1. B. Fox did not measure the flow of the stream as you requested. He only made a casual observation. (He had a Pygmy Meter).
- 2. B. Fox did not indicate the number of miles or locations of the spawning areas. He did not indicate which species of fish would use these spawning gravels.
- 3. B. Fox did not indicate the number of trout per 100 feet for the middle section of the stream. Also, he did not give any figures representing the length of the upper and/or lower sections. He did not make any attempt at estimating the total number of trout for the entire length of the stream.
 - I, C. Culley, made an attempt at estimating the total number of trout present by:
- a. Assuming that the middle section of the stream held 75 trout per 100 feet (the lower held 50/100 feet and the upper held 100/100 feet).
- b. Multiplied the number of trout per 100 feet by the length of the stream. This is a very rough estimate, but probably as accurate as B. Fox's would be.
- 4. B. Fox evidently did not use a sketch map during his survey, or after it, as there is no mention of one other than "see attached" under the sketch map section of the report.

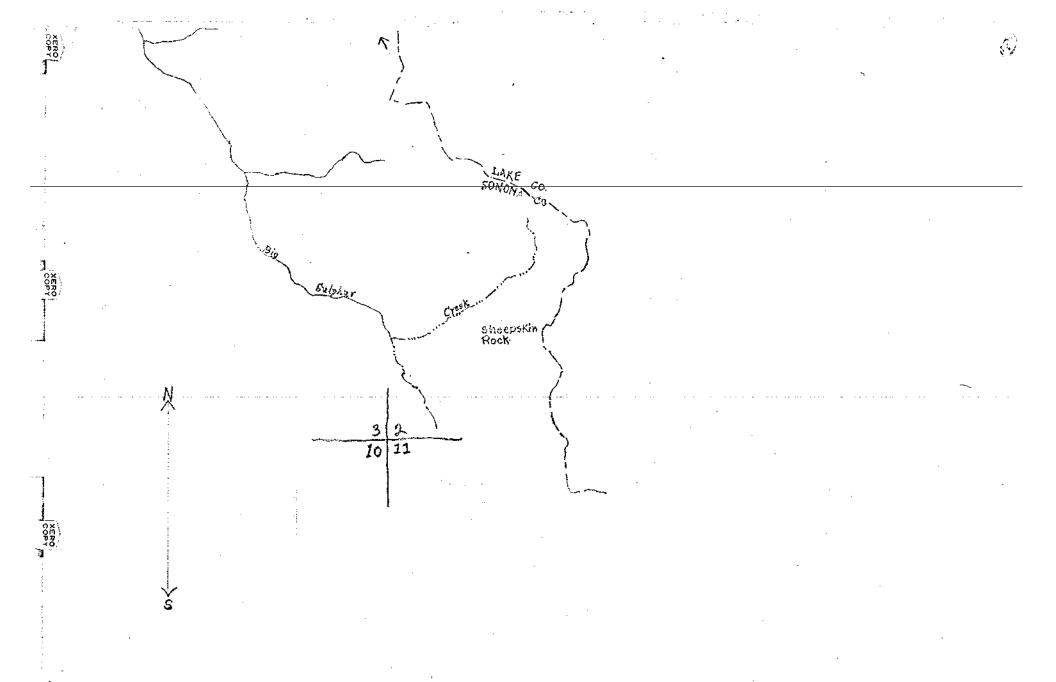
I have included such a sketch map, but feel that it would be pointless for me to attempt to indicate the existing spawning and nursery areas on it, as I would only be guessing. The map, I believe, should still be attached, even if only to show the access routes.

Also	the	TWP	 R	Sec	must	be	looked	up.

Chuck Culley/ls

11/4/65





SCALE 1:24000 Mt. St. Helena, Calif. 2 und Map

