## THE RESOURCES AGENCY OF CALIFORNIA DEPARTMENT OF FISH AND GAME

## STREAM SURVEY

		Date:_	September 11, 1973
Name: FRASIER CREEK	Coun	Y: Sonoma	
STREAM SECTION: Partial FROM: Mou	th To: Upper	Fisheries Limit	LENGTH: 1.6 mi.
TRIBUTARY TO: Big Sulphur Creek		TWP: 11	N R: 9 W SEC: 6
OTHER NAMES: None		RIVER SYST	EM: Russian River
Sources of Data: Personal observa-	cion		

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 Spawning Areas Pools Shelter Rarriers 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 -** On September 11, 1973 Frasier Creek was surveyed on foot by J. Nelson and B. Finlayson from the confluence with Big Sulphur Creek to one and six-tenths miles upstream.

LOCATION - Frasier Creek enters Big Sulphur Creek approximately 7.4 miles east of Highway 101 on the Geysers Road. The Geysers Road intersects Highway U.S. 101 one and a half miles north of Cloverdale. RELATION TO OTHER WATERS - Frasier Creek, a minor tributary to Big Sulphur Creek, offers about one and a half miles of steelhead spawning and nursery area. It also contributes winter and summer flows to Big Sulphur Creek.

## **GENERAL DESCRIPTION -**

Watershed - Immediate Drainage Basin - The stream can be divided into three sections. The lower and upper sections flow through a narrow V-shaped canyon. The upper section being fairly cascading. The vegetation is common along these portions of the stream. The middle section, one and two-tenths miles upstream, flows through a very narrow and open valley about one-quarter of a mile long. The vegetation consists of oak and madrone. Frasier Creek drains a basin of approximately three and one-half square miles.

<u>Altitude</u> - Confluence with Big Sulphur Creek: 720 feet, Upper fisheries limit: 1360 feet.

Gradient - 400 feet/mile.

<u>Width</u> - An average of five feet, with a range from three to seven feet. <u>Depth</u> - Average 6 inches, with range from 2 inches to 2 feet. <u>Flow</u> - Average 0.3 c.f.s.

<u>Velocity</u> – Sluggish.

<u>Bottom</u> - The streambed in the upper and lower sections contained 70% to 80% boulders, 15% to 20% rubble and gravel, and 10% to 5% silt. The middle section consisted of 65% - 75% boulders and 25% - 35 Sluggish. rubble and gravel.

Spawning Areas - On the average, 10% to 25% of the streambed was suitable for spawning. The gravel is fairly loose throughout, with some silt in the lower extremities of the creek. Pools - The pool to riffle ratio is 1:1 with the pools in close association with large boulders. The pools average 6 to 10 inches deep, and 5 to 6 feet in diameter.

Shelter - Boulders provide the majority of the hiding places and a few undercut banks, and

logs provide the remainder. **Diversions** – None noted.

Station Date: Station 1 Station 2 Air Temperature (°F.) 86 78 70 66 Water Temperature (F) 10% 20% Spawning Area Flow (c.f.s.) 0.2 0.3 Width 7 ft. 6 ft. 9 in. 6 in. Depth Date and time 1330 - 9/111550 - 9/11Clear Weather Clear Stream Condition Fair Fair

Food - Flies, gnats, and aquatic beetles were present.

Aquatic Plants - Some algae present.

Winter Conditions - Two to six feet above the summer level.

**Pollution** - Runoff from livestock was noted in upper section.

Springs - Several noted.

**FISHES PRESENT AND SUCCESS** – Steelhead were present and numbered 50/100 feet of stream in the lower section, and 40/100 feet of stream in the middle and upper sections. They ranged from two to seven inches in length. Sucker and roach were present in the first 500 feet of stream and each numbered 20/100 feet of stream.

OTHER VERTEBRATES - Unknown.

FISHING INTENSITY - Unknown.

OTHER RECREATIONAL USE -

OWNERSHIP - Private. Owned by P.C. Hale, owner of the H-E Ranch.

POSTED OR OPEN - The total creek is posted.

IMPROVEMENTS - None noted and none recommended.

PAST STOCKING - Unknown.

GENERAL ESTIMATE - Frasier Creek at this time offers some spawning and nursery area to steelhead trout. Steelhead find this creek suitable because of the lower water temperatures and smaller pools.

**RECOMMENDED MANAGEMENT** - The removal of the slide located in Big Sulphur Creek, about one mile upstream from the Russian River (see stream survey for Big Sulphur Creek—-9/16/73) would facilitate the movement of steelhead trout into Frasier Creek.

SKETCH MAP - Attached.

REFERENCES AND MAPS - U.S.G.S. 15 minute series (Kelseyville Quad) 1959. Scale 1:62,500.

SONOMA COUNTY
THE ROW Sec 6

