Big Sulfur Creek Survey 31 July, 1973 Neil B. Armantrout

River Road crossing, 1100 hrs, temp.: air - 80°, water, 73°, flow 3 cfs. River road crosses over semi-permanent crossing appears that it washes out regularly each winter, and is rebuilt each summer. Forms a pool, 3' deep, filled with silt and gravel, with much algae and some fish to 10" (mostly Rb [RT?]) and some warmwater fishes. Water passes under road via a triple culvert system; drops off at lower end, but probably no problem during fish migration since flow is greater (and crossing may not even be there). Upstream, in 3/8 of mile visible, with at least two private, temporary dams visible.

River road used as starting point for mileage at its junction with Geysers Road.  $0.4\ \mathrm{mile}$ 

River makes a bend around a rocky point; on downstream side are two long, steep erosion areas. Right at point, three falls in series; 2', 7' with bounce off rock face in middle, and a corner at the top; and no pool below; and a 6' which turns corner at bottom, with water falling over and thru several logs lodged in the top between rocks, forming a semi-screen platform. Flow here est. at 5 cfs; falls form a complete barrier at the present flows, but are probably passable at high flows.

0.6 miles

Tributary enters, north; has  $0.2\ \text{cfs}$  flow. Culvert has a 35' falls into Big Sulfur.  $0.6/7\ \text{miles}$ 

Large slide area on backside of rocky point.

1.1 miles

Gaging Station

1.3 miles

An area where there has been a major land slip on north, plus much streamside erosion of steep banks on south. Caused pile-up of rocks and boulders in narrows. There is a series of falls; lowest one is about 10' high, and cascades into nice, deep pool. Above, for next 20 yards, series of falls to 10' and cascades. Again, a complete block at present flow levels, possibly passable at maximum flows.

1.5 miles

severe fully erosion, south. Large soil slip 0.1 mile upstream, south.

3.3 miles

H-E Ranch

3.1 miles

Stream enters a flat, broad alluvial plaint was probably formed by deposition of material settling behind block in canyon downstream (possibly even in falls area). Stream meanders across area; mostly riffle and shallow pools. Reportedly goes dry at times; at the time of the survey, had perhaps 2 cfs, maybe less, flow.

4.8 miles

Still a large, flat area, although canyon width varies. Hills with many small oaks. 4.9 miles

Stream forks in Little Sulfur and Big Sulfur Creeks.

6.9 miles

Mouth of Frasier Creek. Frasier creek-0.5 cfs; many small salmonids in pools both sides bridge. At this point, Big Sulfur has 2-3 cfs flow.

8.7 miles

Big Sulfur Bridge. Stream here has 2 cfs flow. No salmonids visible at bridge area; although many tadpoles. Much algae here, and throughout stream system; also much silt on bottom.

## 9.0 miles

Squaw Creek forks: road passable, but says "No trespassing" on gate, locked. Big Sulfur immediately above forks has cleaner bottom and less algae than further down stream.

15.0 miles Geysers Resort Area - closed 15.2 miles PG&E power plant bridge 15.8 miles Mouth of Cobb Creek

Big Sulfur falls, 0.2 miles below the mouth of Cobb Creek, is in a narrow rocky gorge (20' wide) which is a series of falls and pot holes running 40 yards through canyon. Lower end is 10' falls to 20' deep pole (30 yds long). At upper end is a 15' falls with a small, 3' deep pool below but none above. Probably a complete block, except perhaps at extreme flows; even then, high velocity likely to preclude passage. In falls area, many small warmwater fishes, some suckers to 10", and one sick 6" trout.