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

	<b>Date:</b> August 10, 1977
g Oat Creek	COUNTY: Sonoma
: entire FROM: Headwate	ers To: Mouth LENGTH: 1.9 miles
Ward Creek thence Big Austin	<u>Creek</u> Twp: <u>8N</u> R: <u>12W</u> SEC: <u>13</u>
none known	RIVER SYSTEM: Russian
A: Personal observation	
Rowser walked from the	- On August 9, 1977, Dennis Fong and William e headwaters of Big Oat Creek to its Creek.
	<b>CRS -</b> Big Oat contributes minor summer flows olies little steelhead spawning and nursery
canyon. The dominant t among these were live and madrones. Some ope	Big Oat Creek flows through a steep-sided crees are redwoods and bays. Interspersed oaks, firs, maples, pines, toyons, buckeyes, en sections adjacent to the mid-section of
Watershed & Immediate square miles. It flows near the mouth and hea in the mid-section. Re stream near the mouth to scarce in the middl Altitude - 530' MSL at Gradient - Upper ½ mil	<b>Drainage Basin</b> - Big Oat Creek drains 0.9 s southward through a narrow V-shaped canyon adwaters, and through a broad U-shaped canyon edwoods and bays were abundant beside the and in the headwaters. Vegetation was common
	Ward Creek thence Big Austin   none known   Personal observation   EXTENT OF OBSERVATION   Rowser walked from the confluence with Ward C   RELATION TO OTHER WATE   to Ward Creek. It supp   habitat.   GENERAL DESCRIPTION -   canyon. The dominant t   among these were live   and madrones. Some ope   the streambed were dom   Watershed & Immediate   square miles. It flows   near the mouth and hea   in the mid-section. Re   stream near the mouth   to scarce in the middl   Altitude - 530' MSL at   Gradient - Upper ½ mil

steep gradients.

Width - The average pool was 2 feet wide. The average riffle was one foot wide. Depth - The average pool was 7 inches deep . The average riffle was one inch deep. Flow - There was no surface flow in the upper and middle sections. In the lower ½ mile the flow was between 0.05 and 0.1 cfs. All tributaries were dry. Velocity - The velocity was sluggish.

Bottom - The bottom of the upper section was 10% boulder, 30% bedrock, 30% rubble, 15% gravel, and 15% silt and detritus. In the middle section, it was 30% boulders, 20% rubble, 20% gravel, 15% sand and 15% silt. In the lower section, it was 15% bedrock, 50% boulder, 20% rubble and 15% gravel.

Spawning Areas - There were only a few areas in the downstream 1/2 mile where there was enough suitable gravel for steelhead spawning. There was almost no suitable spawning gravel above the lower ½ mile.

**Pools** - Pools resulted from the digging action of the current. They averaged 4 feet long, two feet wide and 7 inches deep. The ratio of pool to riffle was about 50/50. Shelter - Fish shelter in the pools was provided by boulders and rocks.

Barriers - Partial barriers were formed by log and boulder jams. A log jam 100 feet below the mouth of tributary E-3 was 4 feet high. A log jam 100 yards below tributary E-2 was 7 feet high. A log jam 200 yards below tributary E-2 was 10 feet high. A log jam 100 yards below E-1 was 6 feet high. Two hundred yards below tributary W-1, was a rock and log jumble that caused a 20 foot drop in about 40 linear feet. Anadromous fish use Big Oat Creek up to this point.

Big Oat Creek, Sonoma County

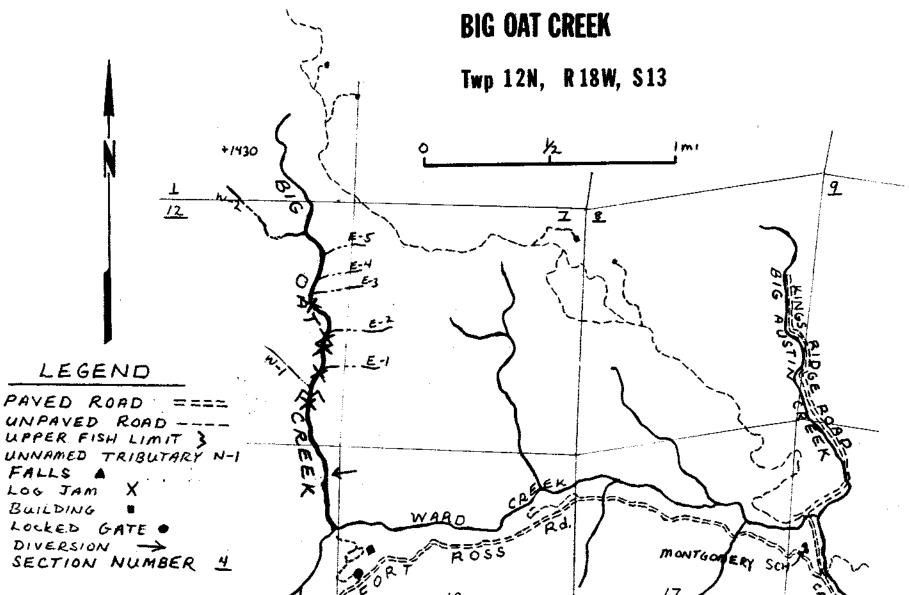
Diversions - One quarter mile up from the mouth of Big Oat Creek a 3-inch screened pipe was taking water by gravity flow. This pipe fed into a 1/2 inch hose. Temperatures - Pool in tributary W-2, 1600 hours, Air temperature 83° F, water temperature 60°F. A pool in Big gat Greek near the mouth of tributary E-5 at 1645, water temperature 74°F, air temperature 77°F. Near tributary E-2, at 1700 hours, air temperature 75°F, water temperature 64°F. Five hundred yards below tributary W-l at 1745 hours, air temperature 70°F. water temperature 50°F. At the mouth of Big Oat Creek at 1830 hours, air temperature 70°F, water temperature 66°F. Food - Waterstriders, whirly-gig beetles, backswimmers, caddis fly larvae were all observed in various pools. Dragonflies and other aerial insects were also observed. Aquatic Plants - Watercress was growing in a shallow pool. Winter Conditions - Big Oat Creek receives fairly heavy run-off from its watershed. Average annual rainfall is approximately 50". Water level appeared to average 3' to 5' above the streambed in the downstream section. Pollution - None observed. Springs - Resident at the mouth of tributary E-l was piping water from springs into tanks. FISHES PRESENT AND SUCCESS - Juvenile steelhead less than 4 inches long were observed in the lower ¼ mile of the stream. There were about 5 fish per 100 feet of stream. Steelhead utilize the lower 1/2 mile of Big Oat Creek for spawning and nursery habitat. OTHER VERTEBRATES - Frogs, California newts, water snakes, Pacific giant salamanders and deer were observed in and around Big Oat Creek. FISHING INTENSITY - Probably none. OTHER RECREATIONAL USES - None observed. ACCESSIBILITY - The mouth is accessible by parking at the top of a dirt road that leaves Fort Ross Road 2 miles west of Cazadero Highway and walking down the dirt road to Ward Creek. OWNERSHIP / POSTED OR OPEN - The land is in private ownership and is posted. **PAST STOCKING -** None. GENERAL ESTIMATE - The importance of this stream as a nursery habitat for steelhead is very limited since only the lower 1/2 mile and any summer flows and, according to a local resident, this is the case every year. **RECOMMENDED MANAGEMENT -** Removal of log jams is not recommended because the area that might be opened to fish is heavily silted and goes dry in the summer. Management as anadromous fisheries habitat should continue.

SKETCH MAP - attached

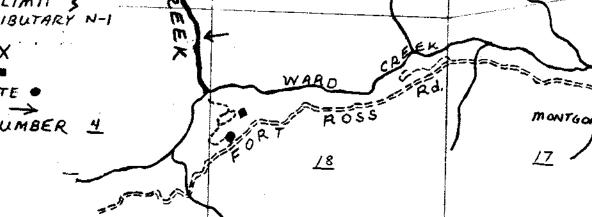
REFERENCES AND MAPS - - Field note from 8/9/65. U.S.G.S. Fort Ross, California, 1943, 7<sup>1</sup>/<sub>2</sub> minute

Quad and U.S.G.S. Cazadero, California, 1943, 71/2 minute Quad.

Alan Baracco Assistant Fishery Biologist Region 3 -2-



DERO



3