## THE RESOURCES AGENCY OF CALIFORNIA Department Of Fish And Game

## STREAM SURVEY

NAME: NORTH FORK MILL CREEK

COUNTY: Mendocino

SE 1/4, SW 1/4, T15W, NE 1/4, SW 1/4

STREAM SECTION: Partial FROM: R12W, Sec 26

TRIBUTARY TO: Mill Creek

TWP: 15N R: 12W SEC: 26

OTHER NAMES: None

RIVER SYSTEM: Russian River

SOURCES OF DATA: Personal observations of B. Finlayson and J. Nelson, Seasonal Aids

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 Pools Shelter

Diversions Temperatures Food Aquatic Plants

Barriers

Winter Conditions Pollution

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ACCESSIBILITY
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OWNERSHIP POSTED OR OPEN IMPROVEMENTS PAST STOCKING GENERAL ESTIMATE

GENERAL ESTIMATE
RECOMMENDED MANAGEMENT
SKETCH MAP

REFERENCES AND MAPS

**EXTENT OF OBSERVATION** - The North Fork of Mill Creek from one-half of a mile above its confluence with Mill Creek to a point two miles upstream was surveyed on foot on August 23, 1973. **LOCATION** - The North Fork of Mill Creek enters Mill Creek three-quarters of a mile due east from where River Road crosses Mill Creek. This area is three miles east of Ukiah.

**RELATION TO OTHER WATERS -** The North Fork of Mill Creek is one of two largest tributaries to Mill Creek.

## GENERAL DESCRIPTION -

<u>Watershed</u> - <u>Immediate Drainage Basin</u> - Mill Creek drains about 9 square miles of rugged terrain on the east side of the upper Russian River drainage. The lower one-and-a-half miles flows through a shallow valley into Mill Creek and was bordered by vineyards, oak, and blackberries. The upper one-and-a-quarter miles of the creek flows through an extremely narrow, steep, V-shaped canyon bordered by fir and oak. This upper one-and-a-quarter miles of the creek was typified by eroded banks, landslides, and an abundance of burnt slash left over from a recent forest fire.

<u>Altitude</u> - Confluence with Mill Creek-640 feet; headwaters-3200 feet.

Gradient - Lower section-160 ft/mile; upper section-600 ft/mile.
Width - 0 to 4 feet.

Depth - Average-1/4 ft., pools up to five feet deep.

Flow - The average flow was about 0.8 cfs. The creek was intermittent from the confluence with Mill Creek to a point one mile upstream.

**Velocity** - Moderately rapid.

Bottom - Upper section: 75% boulder and 25% coarse and fine rubble. Lower section: 60% coarse and fine rubble, 10% sand, 10% silt, and 20% fine rubble.

<u>Spawning</u> - Upper section: 2 to 10% of the area was considered suitable for spawning. Lower section: 40% of the area was considered suitable for spawning.

**Pools** - Approximately 75% of the upper section was composed of pools up to five feet deep. The lower section had a pool to riffle ratio of 1:1.

<u>Diversions</u> - Two water diversions were observed (see attached map)[sic]. Both diversions were utilizing pumps to withdraw the water.

<u>Temperatures</u> - Station 1: water temperature 70°F, air temperature 57°F, altitude 1100, at 1230 hours, flow 0.8 cfs; Station 2: water temperature 64°F, air temperature 60°F, Altitude 1600 feet, time 1600 hours, flow 0.8 cfs.

<u>Food</u> - Plecoptera and ephemeroptera naiads were numerous larvae of trichoptera and diptera as well as adult hemiptera and diptera were also present.

Aquatic Plants - Algae and sedge.

Winter Conditions - Four to six feet above summer levels as estimated from debris lines.

Pollution - A fire retardant (a mixture of ammonium sulfate and red clay) was applied in the North Fork Mill Creek canyon by the California Division of Forestry. This retardant was applied in a mile section one and a half miles above the confluence with Mill Creek. A great deal of the retardant was observed in the creek. Approximately 25 dead rainbow trout were observed in this mile section. Their size ranged from two to seven inches.

The retardant left a red tint on the rocks and trees surrounding the creek and a reddish scum on the slow moving pools. The fish kill was 100% effective in this one-mile section, Burnt slash, fallen trees, a result of the recent fire, were also observed in the creek.

Springs - Several noted.

Shelter - Shelter was provided by undercut banks and rocks.

<u>Barriers</u> - A 10-foot high semi-passable falls was observed one and a half miles above the confluence with Mill Creek and a 50-foot impassable falls was present one mile above the lower falls.

FISHES PRESENT AND SUCCESS - The lower 1 1/2 miles of stream was used by steelhead; from the 10-foot falls to the 50-foot falls rainbow trout were observed in numbers of 5/100 feet of stream. These trout ranged from two to seven inches in length. In the lower stream portion, from the 10-foot falls to about one-half mile downstream, the steelhead numbered 25/100 feet of stream. Their size ranged from two to five inches.

OTHER VERTEBRATES - Frogs, salamanders and newts.

FISHING INTENSITY - Unknown.

OTHER RECREATIONAL USES - Unknown.

**ACCESSIBILITY -** Access to the sections surveyed may be gained from a firebreak road off of Cow Mountain Road.

OWNERSHIP - U.S. Bureau of Land Management.

POSTED OR OPEN - Not posted.

**IMPROVEMENTS** - None.

PAST STOCKING - Unknown.

**GENERAL ESTIMATE** - The one mile section between the two falls appears to be an excellent rainbow trout area; however, due to the recent fish loss and heavy erosion, which is expected to take place this winter, the trout population and available habitat will be diminished. The lower one and a half miles of the creek utilized by steelhead for spawning is also expected to be adversely affected by the siltation problem this winter.

SKETCH MAP - Attached.

MAPS - USGS 7.5 minute series (Ukiah and Cow Mountain Quads, 1958, Scale 1:24,000. RECOMMENDED MANAGEMENT - Fishery management should involve continued use of the lower 1 1/2 miles of stream below the falls for steelhead spawning and rearing purposes. The area between the falls should be managed for rainbow trout.

REFERENCES - USGS Maps, Ukiah Quad map, 15 minute series.