MONTANA DEPARTMENT OF FISH AND GAME
FISHERIES DIVISION

JOB PERFORMANCE REPORT

STATE: Montana TITLE: Northwestern Montana Reservoir Investigations

PROJECT NO: F-34-R-10 TITLE: Inventory & Survey of North Fork Flathead River

JOB NO: IV A

PERIOD COVERED: February 1, 1976 through June 30, 1976

OBJECTIVES

The objective of this job was to determine migration patterns and spawning locations of cutthroat trout from Flathead Lake into North Fork Flathead River drainage.

ACCOMPLISHMENTS

Three sections of the Flathead River were sampled in February, March, April and early May, 1976. Mature cutthroat trout were caught throughout the entire time at the lowest section. This section is east of Kalispell and takes in an area from the U.S. Highway #2 Bridge downstream about six miles and is immediately upstream of the influence of Flathead Lake levels. A cutthroat was judged mature and a 1976 spawner if it was at least 12.5 inches total length. Internal examination of fish indicated that this length was a good "break-point" between 1976 spawners and immature fish.

The middle section was an area immediately above and below the confluence of the South Fork Flathead River with the Flathead River near Hungry Horse, Montana. Immature cutthroat trout were caught in the section in all months, but no mature cutthroat were captured until the night of April 29, 1976.

The upper section was an area around the mouth of the North Fork Flathead River near Blankenship Bridge. Very few cutthroat, all of which were immature fish, were caught in February, March and April. Mature cutthroat were first caught May 3, 1976.

The cutthroat trout catch rate in the lower section, appeared to be correlated with releases of stored water from Hungry Horse Reservoir. Continuous releases of several days duration appeared to draw fish out of Flathead Lake into the river and shutdown of releases appeared to cause the fish to retreat back into the lake.

Hourly Hungry Horse Dam release data for the period of 15 February through 15 June were obtained from the Bureau of Reclamation. The U.S. Geological Survey provided 8:00 A.M. and 8:00 P.M. flow readings from their Columbia Falls water gauge for the same time period.

Temperature records from thermographs below Hungry Horse Dam, at Columbia Falls and directly above Flathead Lake are available. These flow and temperature data correlated with catch records should provide insight into the effects of water releases from Hungry Horse Reservoir upon upstream movement of cutthroat trout.

Spring high water in the Flathead River precluded further sampling after the first week of May. During June, 13 tributaries of the North Fork were hook and line sampled to determine those containing migrant spawning cutthroat trout. Adfluvial spawners were caught from only Red Meadow Creek. Resident cutthroat trout, but no migrant cutthroat, were caught in Hay, Quartz, Moose, Teepee and Colts Creeks.

Status of the cutthroat populations, migrant or resident, was not determined for the other creeks; Logging, Bowman, Anaconda, Spruce, Starvation, Akakola and Kishenehn.

Large numbers of spawning largescale suckers (Catostomus machrochelius) were observed in the lower three miles of Logging Creek. These fish were most numerous near the North Fork Flathead River becoming less numerous with distance upstream. Presumably these suckers were from the North Fork and not from Logging Lake. Small numbers of spawning suckers were observed in the lower one-half mile of Quartz Creek while none were observed further upstream.

Prepared by: Joe E. Huston

Date: 1 September 1976

Waters Referred To:

Flathead River, Sec. 2	07-1560
No. Fk. Flathead River	08-5100
Hungry Horse Reservoir	08-8860
Red Meadow Creek	08-5760
Hay Creek	08-3340
Moose Creek	08-4880
Teepee Creek	08-7200
Colts Creek	08-1640
Logging Creek	00-0200
Quartz Creek	00-0200