

MONTANA DEPARTMENT OF FISH, WILDLIFE AND PARKS

FISHERIES DIVISION  
JOB PROGRESS REPORT

STATE: MONTANA PROJECT TITLE:  
PROJECT NO: F-38-R-4 STUDY TITLE:  
JOB NO: 1 JOB TITLE: WATER RESERVATIONS -  
MISSOURI RIVER BASIN  
PROJECT PERIOD: July 1, 1988 through June 30, 1989

JOB OBJECTIVES AND DEGREE OF ATTAINMENT

1. To compile existing biological and stream profile information to identify data needs.

Existing biological and stream profile data were previously summarized on approximately 100 stream reaches on the Missouri River and its tributaries below Canyon Ferry Dam. During this report period, some streams were eliminated and others added to that list. The final selection included 91 streams comprising 107 stream reaches. Biological information was obtained on each of these reaches. Stream profile information was obtained on 75 streams (75 stream reaches). Some streams, particularly intermittent streams and spring creeks did not lend themselves to the use of stream profile information. Other methods were used to determine instream flows on these streams. There were 16 streams in this category.

2. To determine distribution, species composition and relative abundance of fish populations, where needed.

By the end of the report period, fish population information had been obtained on all streams included in the study. Three categories of population data were obtained: (1) Survey electrofishing data for species composition and relative abundance; (2) mark-recapture population estimates, and (3) two-pass method population estimates. All 107 stream reaches were inventoried with one of these methods.

3. To collect stream profile data on streams where additional fish population assessments are completed.

Stream profile data were obtained on all the remaining streams where this type of information was used to recommend instream flows. As stated in objective No. 1, these included 75 stream reaches on 75 streams.

4. To continue summarizing existing recreational and economic data in the Missouri Basin below Canyon Ferry Dam.

Write-ups were completed on each of the 107 stream reaches studied. The write-ups included a description of the area, the fishery present, the methods used to determine flows, the recreational use of the stream reach and the flow request. Two consultant contracts were completed which provided a report describing the recreational values of the basin in both environmental and economic terms. An economic study conducted outside this project provided additional economic values of the streams in the basin.

5. To continue analysis of impacts of the reservation on other potential water users in the basin.

The two consultant's final report presented information on the potential impacts of instream flow reservations on existing and potential water users. Impacts ranged from no impacts to precluding future water development in some areas. These findings were included in the reservation application as required by administrative rules.

#### SUMMARY

All of the objectives were met as scheduled in FY 89. During this report period, the first phase of the Missouri Basin reservation process was completed. The final product of the past years' efforts is a three volume application for reservations of water in the Missouri River Basin above Fort Peck Dam containing flow requests for 282 stream reaches on 251 streams (160 of these streams are located above Canyon Ferry Dam). The application was submitted to the Board of Natural Resources and Conservation on June 29, 1989. A lengthy administrative process will follow before any instream flows are granted by the Board. Phase 2 of the Missouri reservation process will include that part of the Missouri Basin below Fort Peck Dam, including the Little Missouri Basin in Montana.