

MONTANA DEPARTMENT OF FISH, WILDLIFE AND PARKS

FISHERIES DIVISION
JOB PROGRESS REPORT

STATE: MONTANA PROJECT TITLE: STATEWIDE FISHERIES INVESTIGATIONS
PROJECT NO: F-46-R-1 STUDY TITLE: SURVEY AND INVENTORY OF COLDWATER STREAMS
JOB NO: I-h JOB TITLE: UPPER BIGHORN RIVER INVESTIGATIONS
PROJECT PERIOD: July 1, 1987 THROUGH June 30, 1988

JOB OBJECTIVES AND DEGREE OF ATTAINMENT

1.) To maintain a year around minimum flow in the upper Bighorn River of at least 2,000 cfs in eight out of 10 years and at least 2,500 cfs in five out of 10 years.

Flow levels dropped to 1760 cfs from late September through early October, 1987. Close contact with US BuRec was maintained to minimize the fishery impacts associated with the drought.

2.) To eliminate gas bubble trauma as a significant cause of trout mortality.

Progress was made in studying the problem, and support was provided to the study team.

3.) To maintain average population densities of 5,000 to 7,000 age one and older brown trout and at least 500 18-inch and longer brown trout per mile in the Bighorn River upstream of Bighorn Fishing Access Site (FAS), and to maintain 1,500 to 2,500 age one and older brown trout per mile between Bighorn FAS and Two Leggins FAS.

Population level goals were nearly achieved according to September 1987 estimates. Cold water temperatures combined with high mortality rates have slowed attainment of size objectives. Monitoring continues.

4.) To maintain average population densities of at least 1,000 age one and older rainbow trout and 150 18-inch and longer rainbow trout per mile in the Bighorn River upstream of Bighorn FAS, and to maintain at least 500 age one and older rainbow trout per mile between Bighorn FAS and Two Leggins FAS.

September 1987 population levels were about two-thirds of the goal, with natural reproduction showing a positive trend. Monitoring continues.

5.) To redistribute angler use to achieve use levels of no more than 3,000 angler-days per month above Bighorn FAS and at least 10,000 angler days annually between Bighorn and Two Leggins FAS. (State funded)

Peak use levels were 2,700 angler days per month above Bighorn FAS during August and September 1987. Reliable estimates of usage between Bighorn and Two Leggins FAS are not available, but usage is expected to increase with Mallards Landing FAS now open midway through this reach.

6.) To make at least 750 creel census contacts per year to assess angler success and opinions. (State funded)

Over 1,300 creel contacts were made during FY 1988.

SUMMARY

Progress was made on all objectives during FY 88 as detailed above.