

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 COOLWATER AND WARMWATER ECOSYSTEMS

JOB NO: V-c JOB TITLE: SOUTH CENTRAL MONTANA WARMWATER FISHERIES INVESTIGATIONS

PERIOD COVERED July 1, 1987 THROUGH June 30, 1988

JOB OBJECTIVES AND DEGREE OF ATTAINMENT

1.) To provide optimum conditions for walleye spawning and incubation on Bighorn Lake by implementing water-level control guidelines in cooperation with the Bureau of Reclamation during the April 15-May 31 period.

A close working relationship was established and water level controls were achieved during the spring within constraints imposed by power demand and a poor water year.

2.) To optimize water-level conditions in area irrigation reservoirs in order to enhance production of warm and cool-water species by formalizing and adopting water-level controls prior to the irrigation season on Lake Elmo, and other waters. (State funded).

No progress was achieved during this report period.

4.) To at least maintain the existing flow conditions in the Musselshell River by analyzing instream flow needs, and participating in the reservation process and pursuing other options which may supplement existing flows.

The wetted perimeter method was used to establish instream flow needs for three locations on the Musselshell River (Harlowton, Roundup, and Mosby sections) and for five tributaries (Careless Creek, American Fork Creek, Flatwillow Creek, Swimming Woman Creek, and Big Elk Creek).

5.) To maintain streambanks and channels in their present or improved conditions by administering existing laws.

Projects effecting stream habitat were dealt with through the Montana Stream Protection Act of 1963 (SPA) and the Natural Streambed and Land Preservation Act of 1975 (310). During FY 1988, seven SPA's and 5 310's were processed for the lower Bighorn and Musselshell Drainages.

6.) To maintain water quality at or above current levels as measured at U. S. Geological Survey water quality monitoring stations.

No significant water quality problems arose during this report period.

7.) To develop at least 30 producing bass ponds in the region that are open to public use, supporting at least 15,000 man-days of angling per year by 1992.

Twenty-nine ponds were stocked with 365,000 largemouth bass fry.

8.) To acquire two new access sites on the Yellowstone River downstream from Billings. (State funded)

One site (East Bridge) was developed and negotiations are progressing on several other parcels.

11.) To convert marginal trout fisheries such as Glaston and Lebo lakes into productive warm and cool-water fisheries, and diversify the existing trout fishery at Cooney Reservoir by developing a two-story fishery supporting both walleye and trout.

An environmental assessment for tiger muskie introduction into Glaston and Lebo lakes was prepared and accepted with stocking to follow. Monitoring of progress in the developing walleye fishery at Cooney Reservoir was conducted by trap-net, gill-net, and electrofishing surveys.

13.) To monitor developing warm and cool-water fisheries and make recommendations to enhance the forage base where necessary.

Monitoring indicated that no forage enhancement was needed currently.

14.) To create a smallmouth bass fishery in the lower Bighorn River capable of supporting 10,000 angler days of use per year.

Unavailability of hatchery fish delayed attainment of this objective.

15.) To develop a walleye egg source in Bighorn Lake or Cooney Reservoir. (State funded)

A total of 4.7 million walleye eggs were collected at Bighorn Lake during April 1988.

17.) To determine the amount of fishing effort expended and success rates for warm and cool-water species in the region's mixed-species fisheries by utilizing existing warden and parks division contacts in the field and supplementing with fisheries division follow-up where necessary. (State funded)

This program was successfully initiated in 1987 with over 2,500 fisherman hours surveyed, and it will be expanded in 1988.

18.) To increase public awareness of the availability of warm and cool-water fishing opportunity and the resource that provides them. (State funded)

A bass pond database was established and used in directing the public to planted ponds.

SUMMARY

Objectives 3, 9, 10, 12, and 16 were not scheduled to be addressed during FY89. Objective 2 was delayed during FY89 due to a lack of time. Severe drought conditions made water-level controls unworkable because of heavy irrigation demand. Progress will be made during future years. Objective 14 was not achieved due to the unavailability of smallmouth bass from the hatchery source. Future work will be subject to that availability. Progress on all other objectives was achieved.