

MONTANA FISH, WILDLIFE AND PARKS
FISHERIES DIVISION
JOB PROGRESS REPORT

STATE: MONTANA PROJECT TITLE: STATEWIDE FISHERIES INVESTIGATIONS

PROJECT NO: F-46-R-7 STUDY TITLE: SURVEY AND INVENTORY OF COOLWATER AND WARMWATER ECOSYSTEMS

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

PERIOD COVERED: APRIL 1, 1993 THROUGH MARCH 31, 1994

OBJECTIVES AND DEGREE OF ATTAINMENT

1. To provide optimum conditions for walleye forage production on Bighorn Lake by implementing water-level control guidelines in cooperation with the Bureau of Reclamation.

Maintained close working relationship with USBR personnel, and achieved water level controls during the spring within constraints imposed by power demand and water supply. Met with the USBR, the National Park Service, Wyoming Game and Fish, members of Montana Walleye Unlimited, and local river outfitters during spring to discuss options and make recommendations on operations for the next year that would benefit forage fish production in Bighorn Lake.

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).

Maintained working relationship with Billings Bench Water Association and Huntley Irrigation District concerning Lake Elmo and Anita Reservoir. Developed specific draw-down and refill plans for Lake Elmo as part of the planning process for construction of a new fishing pier. Discussed water levels and habitat projects for both water bodies as they related to the associated fisheries.

3. To improve habitat conditions for both warm and cool-water species in area bass ponds by installing artificial habitat and enhancing natural cover.

Coordinated efforts with Region 4 fisheries personnel to assist the Billings Fishing Club on a project to install Christmas tree structures in Petrolia Reservoir. Inspected old Christmas tree reef projects in Lake Elmo during drawdown, and initiated discussions with Billings Bench Water Association personnel concerning the potential of placing additional trees in Lake Elmo.

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.

Continued to serve as the Department's representative on the advisory board of the Musselshell Basin Commission which was formed to bring water users, landowners, government agencies and all interested parties together to develop a coordinated water management plan for the Musselshell Basin. Attended meetings and participated in discussions. Assisted the SCS District Conservationist in developing and reviewing proposals for a project to improve the water distribution system below Deadmans Basin Dam. Continued to monitor 11 photo sites along the Musselshell River between Melstone and Two Dot and record water level fluctuations on film.

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

Reviewed projects affecting stream habitat through the Montana Stream Protection Act of 1963 (SPA) and the Natural Streambed and Land Preservation Act of 1975 (310). Processed 3 SPA's and 20 310's for the Bighorn and Musselshell drainages during the report period.

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

Encountered no significant water quality problems during this report period. Maintained contact with the local irrigation districts so affected waters could be monitored when herbicides were applied to area ditches. Started evaluating non-point pollution problems along the Musselshell River as part of the Musselshell Basin Commission study. Worked with the SCS on a proposal to obtain non-point source pollution money to help reduce sediment loading in the Musselshell River through operational changes and habitat enhancement on the Careless Creek canal system.

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.

Planted 79,240 largemouth bass in 13 lakes and ponds in Region 5 during 1993 including 3 ponds planted for the first time. Five additional ponds were located and will be planted with bass in 1994. Continued to monitor the developing bass fisheries in numerous other ponds. More than 45 ponds in the region have been stocked with largemouth bass since 1985.

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

Continued to develop and make improvements at two new access sites (Gritty Stone and Voyagers Rest) acquired in 1989.

9. To develop plans for construction of at least two new public fishing ponds in the region by 1992. (State funded)

Met with the BLM to discuss plans for building a pond on BLM land near Bridger. This pond would utilize warm spring water and has good fisheries potential, but the project is on hold until water rights issues can be resolved.

Continued to explore the feasibility of a large reservoir in the Valley Creek Drainage near Park City.

10. To intensify management of existing urban area pond fisheries (Lake Elmo, Josephine, Arapooish, Chief Joseph, Broadview) by developing artificial reef projects, fishing docks, etc. to maximize the productivity of these fisheries.

Worked with the Parks Department in developing plans for a handicapped fishing pier on Lake Elmo. Met with contractors and Billings Bench Water Association personnel to develop a drawdown and refill schedule for Lake Elmo as part of the pier construction. Continued to work with the Big Horn County Parks Board to maintain an aeration system in Arapooish Pond. A major winter kill occurred in Arapooish in early 1994 even with the aerators in operation. Continued to plant largemouth bass, channel catfish and/or tiger muskie in these ponds and monitor the resulting fisheries. Conducted field trips for school children at both Lake Elmo and Lake Josephine to increase interest in fishing.

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.

State stocking of fish at both Lebo and Glaston Lakes has been discontinued until a formal access agreement can be developed with the landowners. Continued working with landowners on both lakes to formalize long term solutions to the access question. Allowed landowners to stock 8,000 rainbow trout they received from the Bozeman Fish Technology Center into Lebo Lake. Stocked 157,000 6 inch rainbow trout and 104,000 walleye fingerlings into Cooney Reservoir, and continued to monitor this fishery.

12. To broaden and diversify existing warm and cool-water fishing opportunities by developing a yellow perch fishery in the area and exploring potential for new species introduction. (State funded)

Began evaluating one large private bass pond as a potential perch pond. Continued efforts to increase predation on small perch in Lake Elmo in hopes of increasing size of the remaining fish and improve the existing perch fishery. Stocked 500 6.7 inch tiger muskie into Broadview Reservoir, and 14,800 channel catfish into four regional lakes.

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

Sampled warm and cool-water fish populations in Bighorn Lake, Cooney Reservoir, Lebo Lake, Lake Elmo, Lake Josephine, the lower Yellowstone River, and numerous small ponds and reservoirs in the region. No forage fish enhancement occurred during this study period.

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

This program was discontinued in 1993 after it was determined that most of the smallmouth bass being planted in the Bighorn River were moving out of the Bighorn and into the Yellowstone River. Sampling results from the lower Bighorn River indicated there was not enough rock habitat present to maintain a significant smallmouth bass fishery in this section of river.

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

Captured 203 mature walleye during seven nights of electrofishing on Bighorn Lake in April. Collected 6.6 million eggs from 53 ripe females. No attempt was made to collect walleye eggs from Cooney Reservoir following poor results in 1992. Planted 5 million walleye fry and 196,000

fingerlings back into Bighorn Lake, and 104,000 fingerlings into Cooney Reservoir.

16. To develop contingency plans for walleye and bass fingerling production ponds in the region. (State funded)

This objective was abandoned after the Miles City hatchery became fully operational and able to raise the walleye and bass fingerlings needed in Region 5. As long as the hatchery program is successful, no attempt will be made to develop rearing ponds locally.

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)

Abandoned this program because warden and parks division contacts have not provided much usable data on warm and cool-water fisheries within the region in the past. Plan to rely more on the state-wide mail survey and periodic intensive surveys for this information.

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

Maintained bass pond database used in directing the public to stocked bass ponds. Worked with media to promote warm and cool-water fisheries on public waters such as Lake Elmo. Assisted with kids fishing programs on Lake Elmo and Lake Josephine to introduce more young people to fishing.

SUMMARY

Three tasks (No. 14, 16, and 17) have been abandoned since this work plan was developed. Progress was achieved on all other objectives during FY94.

FINAL BUDGET STATUS

<u>Amount Budgeted</u>	<u>Amount Spent</u>	<u>Balance of Funds</u>
\$42,683.00	\$39,060.03	\$3,622.97

