

FINAL REPORT
DEVELOPMENT AND OPERATIONS



FEDERAL AID PROJECT NO. F-42-D
FISH HATCHERY RENOVATION
OKLAHOMA DEPARTMENT OF WILDLIFE CONSERVATION
SEPTEMBER 6, 1985 thru AUGUST 31, 1988

FINAL REPORT

STATE: Oklahoma

PROJECT NO. F-42-D

PROJECT TITLE: FISH HATCHERY RENOVATION

PROJECT DATES: September 6, 1985 thru August 31, 1988

OBJECTIVE: To complete fish hatchery renovation at Byron State Fish Hatchery by constructing a water recirculation system, constructing a new fish hatching house, constructing eight pond harvest and drain structures, and excavating and clay lining eight production ponds; and to complete hatchery renovation at Medicine Park State Fish Hatchery by excavating and clay lining five ponds.

ACCOMPLISHMENTS: The objective has been realized in that fish hatchery renovation at Byron State Fish Hatchery and Medicine Park State Fish Hatchery (now named James Arthur Manning State Fish Hatchery) has been completed. Both hatcheries were in full fish production during 1988 and therefore contributing to the sportfishing opportunities in Oklahoma waters.

During Segment 1 a total of \$146,552.14 direct costs were expended on the construction of the water recirculation system at Byron Hatchery; \$150,088.81 direct costs were expended to complete clay lining of the Medicine Park Hatchery ponds; and \$244,886.22 was spent on engineering and pond/drain structures at Byron Hatchery. With indirect costs added, the total spent was \$612,314.01 and the Federal share was \$448,209.94.

Segment 2 completed renovation of the eight ponds at Byron Hatchery at a cost of \$429,739.74 direct expenditures. Additionally, engineering and construction of the new Byron fish hatching house and offices began at a direct cost of \$144,712.95. Indirect costs and \$88,997.68 of in-kind match funds were incorporated into the segment bringing the total costs of Segment 2 up to \$667,305.84 and a Federal share of \$500,479.38.

With the completion of Segment 3 and the renovation project, \$128,770.76 of direct expenditures, \$1,721.93 of indirect costs and \$43,123.17 in in-kind match funds brought the total Segment 3 costs to \$173,615.86. The Federal share was \$129,369.52.

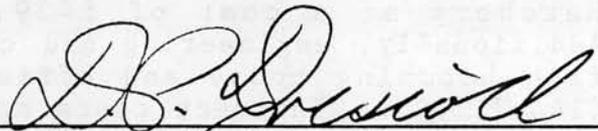
Summarizing the expenditures for this project, the hatchery renovations were completed at a total cost to the project of \$1,453,235.71 of which the Federal share was \$1,078,058.84. Included in these totals were in-kind match costs of \$132,101.20 incurred during prior construction without Federal Aid in Sport Fish Restoration Act Funds.

CONCLUSIONS: Although fish hatchery renovation began in 1970, before adequate Sport Fish Restoration Act funds were available, the hatcheries are now completed. Only the last three years construction activities were actually charged to this Federal Aid Project. The J.A. Manning (Medicine Park) Hatchery now consists of 22 ponds containing 24.16 surface acres of water, a hatchery office building, water recirculation system and storage and work sheds. Byron State Fish Hatchery also has a water recirculation system, new fish hatching house/office, and 20 ponds plus 3 reservoirs (36.41 surface acres of water). Two other hatcheries (Durant and Holdenville) were renovated before this project began.

What has hatchery renovation accomplished? In 1969 there were approximately 9,500,000 fish stocked in Oklahoma waters. In 1987 approximately 26,600,000 fish were stocked, a nearly three-fold increase. Using the American Fisheries Society's Monetary Values of Freshwater Fish and Fish-kill Counting Guidelines (AFS Special Publication #13), it was estimated that fish valued at \$5 to \$8 million have been produced in 1987. Obviously, the cost was worthwhile. Much of this additional fish production was for walleye, saugeye, striped bass, and striped bass hybrids, there by developing many new fishing opportunities.

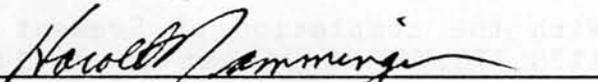
Maintenance and operation of fish hatcheries will be conducted under Project F-43-D (eventually to be designated as F-43-M). Hatcheries require extensive renovation periodically due to aging and normal wear; therefore, this project may be renewed at a later date to undertake additional renovation when required.

Submitted by



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Approved by



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