

The management of these lakes is based on the recommendations of biologists who make periodic trips to every lake. Fertilization is used only if the watershed soil is infertile and the lakes have an extremely low total alkalinity and low pH. Other management has included extensive weed control, population manipulation (including total rotenoning, partial rotenoning, and marginal rotenoning). There has been short term creel census work done, but no long term intensive creel census has been set up on these reservoirs.

## SUMMARY OF DISCUSSION ON ALABAMA'S PUBLIC FISHING LAKES

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### ABSTRACT

The construction of lakes by the State Department of Conservation was initiated to provide fishing in those areas of the state having insufficient fishing waters. The sites for these lakes were carefully selected so the lakes which were constructed could be managed for maximum fish production. Efforts were made to eliminate all native fish from the streams, ponds and "pot holes" within the entire watershed in addition to those in the lake area prior to stocking with bluegill, *Lepomis macrochirus* Rafinesque; redear sunfish, *Lepomis microlophus* Gunther; and largemouth black bass, *Micropterus salmoides* Lacepede. To keep these lakes in balance and producing high annual yields of fish, it was necessary to employ various management techniques including fertilization, fish population control, corrective restocking and control of aquatic weeds and algae.

Alabama has eleven managed lakes containing a total of 591 acres that have been open to public fishing for 2 to 5 years. Four of the eleven lakes containing 233 acres have been opened for 2 years, one containing 40 acres for 3 years, three containing 163 acres for 4 years and three containing 155 acres for 5 years. During the time that these lakes were opened, they provided a total of 379,460 fisherman-trips in which the fishermen caught a total of 1,291,012 fish weighing 364,062 pounds. These lakes, therefore, provided an average of 189 fisherman-trips per acre and an annual average catch of 642 fish weighing 180.9 pounds per acre. Although the lakes were subjected to extremely heavy fishing pressure, the average catch of fish per fisherman-trip was 3.4 fish weighing 0.96 pounds.

The average cost of construction of the 11 state-owned lakes was approximately \$460.00 per acre or \$25,702.00 per lake. The cost of rotenone used in treating the lakes and drainage areas to kill native fish prior to impounding was approximately \$54.00 per lake.

The average annual cost of fertilization was \$27.50 per acre while the average annual cost of weed, algae and fish population control was approximately \$1.50 per acre. After paying the lake managers, the average net revenue derived annually from these lakes from the sale of fishing permits (50 cents per day for individuals over 16 years of age), boat rentals and concessions was \$42.00 per acre or \$13.00 more per acre than the annual cost of management.

The construction of public fishing lakes appears to be a practical method of providing good fishing in many areas of the Southeast that have insufficient fishing waters. Large annual yields of fish can be produced in lakes provided the lake-sites are properly selected and the lakes are constructed so they can be fertilized and otherwise managed to maintain balanced fish populations.