PANEL DISCUSSION ON STATE OWNED LAKES, POLICY AND MANAGEMENT

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Biologists from Alabama, Kentucky and Tennessee were selected because these three states apparently have constructed and are operating more of these lakes than any of the other southeastern states. As panel chairman, I pointed out the need for a lake panel since a summary of the construction and management of this type of lakes and an exchange of ideas should be of considerable value to all the states in the future construction, management and maintenance of such lakes.

The history of Tennessee's state-owned lakes system was summarized, the administrative management and achievement of these lakes was discussed. Mr. Cobb then explained the fish management that is followed on these lakes. The general policies of these three states are as follows:

1. Tennessee. The Game and Fish Commission selects the lake site, acquires the land, designs the dam and supervises construction. The factors of watershed, rainfall, run off and geology are examined. Clearing and construction of the dam is let by contract. Dingell-Johnson funds will be used for the construction of future lakes. After the lake is finished, a residence and office are constructed, and a fulltime, year-round manager is employed. He collects a daily fee of 50¢ for fishing and rents boats for $1.00 per day. The lake manager has full charge of the lake both for law enforcement and fish management and carries out fish management instructions which includes keeping daily creel records, number of visitors, number of successful fishermen, etc. All lakes are under the supervision of the district fisheries biologists who collect creel data, make populations studies, etc. Tennessee now operates nine lakes according to this plan.

2. Alabama. Mr. Byrd explained how the lakes are selected, constructed and managed in his state. The lake site must be provided by the county and deeded to the state. The site, of course, must meet the specifications of the management section. The Game and Fish Commission constructs the lake, operates and manages it after it is impounded but the lake manager is contracted to operate the lake on a concession basis. A daily fee of 50¢ is charged for fishing. He may or may not see fit to construct an office or residence but if it is done, it is at his own expense. He also furnishes boats and equipment. The lakes are supervised by fisheries biologists, creel data is taken and the lakes are fertilized according to their recommendations.

3. Kentucky. Mr. Martin reported that their system is somewhat different in Kentucky since the state builds and manages the lakes but makes no charge for fishing and does not employ attendants on the lakes. Fish management is conducted and supervised by fisheries biologists for creed data, weed control, etc. Several questions and discussions from the floor were concerned with details relating to creel data, weed control, etc.

THE STATE LAKE PROGRAM IN KENTUCKY

By MAYO MARTIN

Kentucky has 19 completed lakes, three are being constructed, and several more are being planned. In addition, the Department of Fish and Wildlife manages several lakes for the Parks Division.

The Kentucky program began when the Department bought Carpenter Lake from an association in Owensboro in 1935. The present lake program started in 1953.

At present the method of obtaining lakes is for Sportsmen's Clubs to obtain sites approved and surveyed by Department personnel. The Sportsmen's Clubs get leases, deeds, or perpetual easements. Then the dams are built by private contractors.

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

By I. B. Byrd

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.