Original: Sent to Mr. Louis Hascall of the Lost Lake Woods Club cc: Fish Division -Education-Game Institute for Fisheries Research

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REPORT NO. 406a

REVISED MANAGEMENT PROPOSALS FOR THE WATERS OF THE LOST LAKE WOODS CLUB

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At the request of Mr. Louis Hascall, Chairman of the Conservation Committee of the Club, I have studied the records, maps, and report (No. 406) of the original survey of the waters of the Lost Lake Woods Club. The following management proposals for individual waters are based upon more adequate knowledge of fish requirements than existed when the original report was written. Although little change in physical, chemical, and most biological conditions would be expected in the nine years since the survey was made, it is quite likely that there have been changes in the dominance of various fish species and possibly their growth rate. In order to bring the management plans up-to-date, it would be necessary to have some investigation of these factors.

We have no information as to whether any of the recommendations made in the earlier report were carried out. If any or all were acted upon a re-check of the waters would be especially desirable before adopting the program outlined below. The proposals which follow are based on the assumption that it was not possible to put into effect any of the recommendations of the earlier report and on the further assumption that there have been no radical changes in the conditions for fish life and fish populations in the interior.

#### General Recommendations for All Lakes

(1) Keep accurate records, separately by lakes, of all fish stocking and any other fish management carried out, such as fertilization or brush shelter installations, etc.

(2) Maintain complete records of fish catches in each lake. Blueprints of a simple creel census box which should be placed at each lake and of sample forms for recording fishing information will be furnished on request.

Only by keeping good books on what is done and on the results can the Club be sure what it is getting for the efforts expended to improve fishing.

### Badger Lake

(1) No stocking of fish is required. All suitable species are present and may be assumed to be reproducing a maximum stock of young.

(2) If desired the recommendations given in Report No. 406 to fertilize by the use of superphosphate on rafts might be tried although definite evidence of the value of fertilization of Michigan lakes is not yet available. (The Conservation Department in cooperation with Michigan State College is conducting some experiments in lake fertilization this year.)

(3) Install 10 large brush shelters (type #4 shown on the mimeographed sheet attached to Report No. 406). Seven of these should be placed on the east side of the lake and three on the west. Place in water from 8 to 15 feet in depth.

# Lost Laks

(1) No stocking required for reasons given under #1 of Badger Lake.

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(2) If desired fertilize with superphosphate--1,000 pounds applied as suggested for Badger Lake.

(3) Install five rectangular brush shelters (type #4) in water from
6 to 10 feet in depth.

# Deer Lake

(1) No stocking if walleyes have reproduced in this lake. If not, plant 1,000 smallmouth bass fingerlings this year to establish this species. If successful no further planting should be required.

(2) If desired 2 tons of superphosphate fertilizer may be applied yearly as recommended for Badger Lake.

(3) Place two hollow square brush shelters (Type #9 of Lake Improvement Devices) in water from 4 to 5 feet in depth. Fill centers with rich loam and transplant water plants from Badger Lake in the fall of the year.

Install 10 large brush shelters (Device #4) in from 8 to 12 feet of water and 20 small circular shelters (Device #2) along east side in about 4 feet of water.

(4) To improve spawning conditions for bass place 25 bushel piles of gravel (size from 2 1/2 to 3 inches) at least 10 feet apart in water from 2 1/2 to 3 feet deep along southeast side.

# Bear Lake

(1) Make an experimental planting of 300 largemouth bass fingerlings and 1,500 bluegill fingerlings this fall to establish these species in Bear Lake.

INSTITUTE FOR FISHERIES RESEARCH

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