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cc: Education-Game Mr. Stanley Shust Mr. Fred Owens Mr. Chester Carr, Kalamazoo INSTITUTE FOR FISHERIES RESEARCH Institute for Fish. Res. Division of Fisheries MICHIGAN DEPARTMENT OF CONSERVATION COOPERATING WITH THE UNIVERSITY OF MICHIGAN

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ALBERT S. HAZZARD, PH.D. DIRECTOR

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ADDRESS UNIVERSITY MUSEUMS ANNEX ANN ARBOR, MICHIGAN

REPORT NO. 986

A PARTIAL FISHERIES SURVEY OF FLOODWOOD LAKE, DICKINSON COUNTY

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A. S. Hazzard

While staying at Witch Lake, I was approached by Mr. Chester Carr of Kalamazoo who has recently purchased some land on the north end of Floodwood Lake. He stated that according to local reports this lake provided some good fishing for pike, perch and bullheads before winter-kill about 1938 and that so far as he could tell there were no fish in the lake at present. He was interested in having the lake restocked.

On August 31, 1944 I accompanied Mr. Carr to Floodwood Lake and we made a partial survey of it. The lake (actually three separate basins before the present beaver dams were built) is about 1/4 mile west of the Floodwood railroad station and can be reached by a rough but passable road leaving state highway M-95 near the station. It is situated in T. 44 N., R. 30 W., Secs. 11, 14. Once the site of a thriving lumbering town, the station stop is about all that now remains. According to Mr. Carr the state owns the east half of the lake including the frontage accessible by the road. The public makes some use of the road to the lake presumably for berry picking and hunting.

Incorrectly called Doans Lake. The Field Administration master plan map shows a Doans Lake about one mile southwest of Floodwood Lake in Section 13.

The Floodwood lakes lie in the valley of the Michigamme River and are located on a short tributary of this stream. No maps are available of the lakes but it was estimated that at least forty acres are now impounded by the beaver dam on this tributary of the Michigamme River. There are three dams on this short stream at present--the uppermost structure, about five feet in height, is active and controls the lake level, which as mentioned earlier is high enough to connect all three of the original basins.

The maximum depth (17 feet) was found in the easternmost basin. Extensive soundings at random in various parts of the lake showed that the water was of rather uniformly shallow depth elsewhere. Considerable land has been flooded by the present dam and there is much drowned timber and brush, particularly at the north end. Elsewhere the land flooded was mostly marsh. The bottom is fibrous peat or marl with some sand in the shallow water and pulpy peat or marl in the deeper parts.

The water is colorless and quite clear. Temperatures taken with a reversing thermometer showed no stratification in any part of the lake. In the deepest part of the east basin the surface water was $67^{\circ}F.$; at 16 feet (one foot above bottom) the water was 64° . At 16 feet there were 6.6 p.p.m. of oxygen with a M. C. Alkalinity of 130 p.p.m. and a pH of 8.0. Oxygen would probably be adequate for trout but there is a good possibility, as indicated by the temperature series, that the entire lake might become too warm in midsummer. Also the area of water greater than ten feet deep is extremely limited so that the trout carrying capacity in summer would be very low even if the bottom waters remained cold enough. The high alkalinity and extensive shoal indicate a productive lake for warm-water species.

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There is considerable shelter for fish at present because of the submerged brush and trees. In addition there are rather extensive beds of aquatic vegetation--bulrushes, pondweeds and water lilies. Spawning grounds should be excellent for northern pike, largemouth bass and bluegills.

Mr. Carr, who is an expert lake fisherman, trolled with worm and spinner while we were cruising the lake but had no strikes. Some small minnows were seen at the beaver dam and one small dead bullhead was noted there. A fair-sized fish which looked like a sucker was seen to jump once; otherwise there were no signs of fish life in the lake. According to local reports Floodwood Lake furnished good pike, perch and bullhead fishing prior to about 1939, when winter-kill is thought to have occurred. Four creel census records for this lake taken in 1938 are on file and show a catch of 2 northern pike by spear. Apparently pike and perch are no longer present--at least in any number--as a few would have been seen or caught in the time spent at the lake.

Recommendations

1. Establish largemouth bass and bluegills by generous fingerling plantings as soon as the stock can be secured. (This recommendation was made orally to Mr. Fred Owens, Foreman of the Marquette Hatchery, and he promised to plant the lake in the fall of 1944 if possible.)

2. Maintain the present lake level by encouraging beaver at least until their food supply becomes depleted. There seems to be a good supply of aspen within reach of the lake which should last a colony for several years. If beaver desert this lake, steps should be taken to make their upper dam permanent. This should be possible at relatively small expense as the dam is short.

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3. Post the present state ownership as a public fishing site as soon as good fishing develops. No development of the site should be necessary in the immediate future.

4. Check the results of planting in 1945 and in subsequent years.

INSTITUTE FOR FISHERIES RESEARCH

By A. S. Hazzard Director

Report typed by V. M. Andres