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Lake Level Problems

Because water is such an important factor in modern civilization and because it is a "dynamic" or fluctuating resource, water problems of one sort or another and at one time or another affect us all.

Water moves fast and mysteriously. It is sly and tricky. Nevertheless, it is a physical substance and practical, scientific study of its behavior can be made. Because of its ever-changing nature, there exist many popular misconceptions about it. Also, there is much misunderstanding about legal procedures where water is involved and about the practical handling of water problems.

In order to clarify the more commonly occurring issues and to correct the more generally held misbeliefs we are presenting a series of statements about water. This article relates to lake level problems.

1. Lake level control is under the authority of the County7 Boards of Supervisors

2. Legal lake levels (called "normal" levels by the law) are established only by Circuit Court Judges. The Circuit Court sets "normal" lake levels when it is petitioned to do so by the Board of Supervisors. The law governing normal lake level establishment is Act 194 of the Public Acts of 1939. (In Oakland County only, tentative levels set by the County Drain Commissioner automatically become legal after five years if not challenged within that time. In Oakland County, Act 276 of the Public Acts of 1945 may be used.)

3. The Department of Conservation may also petition the Circuit Court for "normal" level determination. But the law says that if it does so, it must assume the full costs of proceedings and dam maintenance, and the Attorney General's office has stated that it must also assume full costs of dam construction. Such work on all lakes needing it would be a multi-million dollar project. Funds have not been appropriated for this work and the Conservation Commission therefore follows a policy of not petitioning.

4. When the County Board of Supervisors petitions the Circuit Court for "normal" level determination, the County Board of Supervisors may spread the costs or any part thereof against the properties which it deems benefited by the improvement. Where the Conservation Department owns frontage, the Commission follows a policy of contributing to the costs on a prorata basis according to benefits received, provided that control works are approved by Department engineers.

5. The "normal" level does not have to be the average or mean level. It may be whatever level, considering the known history of the lake,"…will provide the most benefit to the public and best protect the public health, welfare and safety and which will best preserve the natural resources of the state."

6. When owners of more than 51 percent of the frontage along any lake petition the Board of Supervisors to have a normal level established, the Board is required by law to direct the prosecuting attorney to petition the Circuit Court for normal level determination. The law also says that once proceedings have been started they cannot be"……discontinued except by consent of all parties interested therein or by order of the court…."

7. Stabilizing lake levels tend to upset the balance of nature in local water resources. Under natural conditions, lakes are high during wet times and low during drought. When this variation is eliminated from the lake, it is passed on to the outlet stream. During wet periods, this aggravates downstream flood conditions. During drought, normal outflow is reduced or stopped in order to compensate for evaporation. Although level stabilization usually benefits the lake, it also tends to increase the variation in outflow. Proper control of lake levels can tend to modify the variation in outlet stream flow by utilizing temporary storage in the lake as much as possible during flood and by saving enough to permit some outflow during drought. Such controlled fluctuation of lake levels is not provided for by law. It is often desired by lake property owners to prevent ice damage and to permit more economical dam construction.

8. The Conservation Department maintains a regular service to County Boards of Supervisors, making intensive engineering surveys to determine the "normal" level and the possibilities and means for maintaining that level. Such surveys are made on request of the County Boards, without cost to the counties or riparians (owners of the shores).

9. These engineering survey requests are filed and scheduled. Projects presently scheduled will take a year to complete. Additional requests must take their turn. The surveys are necessarily painstaking and must cover a period when most cottages are occupied, for purposes of canvassing, and usually a period of spring high water so that actual observations of high water effects can be made.

10. The state does not own most public inland lakes. The bottom belongs to those who own the frontage. The lakes are open to all for navigation and allied pursuits. The fish belong to the state; the water belongs to no one.

11. Riparian's (owners of the shores) may take the water for use on riparian land, to a "reasonable" extent. (Common law doctrine of the reasonable use.)

12. A riparian may not fill a lake area, even to improve and beautify unsightly shallows. See Burt vs. Munger, 314 Michigan 659. The court held, in this case that such filling constituted unlawful appropriation of other riparian's rights in navigation.

13. Water level fluctuations do not occur in cycles of seven years, 11 years, one year, and 13 years. If anyone can identify and cycle (regular period) beyond the annual "up and down" you've got us (Conservation Department) beat. The only consistency we can see in the 89 year record of Great Lakes levels is the absence of regularity.

14. Water levels in Michigan are going down. They have been lowered in areas of agricultural drainage and of heavy pumping from wells. There is still an annual surplus of water in practically every area, proof of which is shown in the fact that most drains flow, at least temporarily, each spring.

15. The statement that drainage and lake level stabilization are diametrically opposed is false. A most dangerous generalization. Where drains cut into porous sands and gravels their influence may extend to nearby lakes, some of which can stand it and some can't. Carless drainage hurts crops and lakes alike. Well planned drains may often permit land drainage without harm to lakes. Newly proved engineering methods give great promise for solving this problem. Controlled lake level fluctuation often can help upstream drainage without harm to the lake.

16. Drainage effects do not usually extend far beyond the area intentionally drained. It seldom would be necessary to supplement the open ditches with a network of tile lines and tributary drains.

17. Lakes do not develop “leaks” in their bottoms which cause the water level to drop. Lake bottom conditions are stable and not susceptible to such change. In limestone areas, some lakes have crevices and solution cavities in their rock beds, which supplement surface drainage. Many other lakes have underground “outlets” through which the water constantly moves to lower areas. However, these “outlets” are broad, porous belts and the movement of the water is very slow seepage.

18. It is almost impossible to seal off springs with mud, leaves and other material causing the lake levels to drop. Their failure is generally due to deficient rainfall or to other causes which lower the water level in their “intake area”. As long as the water pressure is there, the springs will flow. Dynamiting, dredging, or dragging is useless.

19. Lakes which have been meandered are not necessarily public. The meander line has no legal significance in this connection. It was run at the time the survey was made merely to show the original purchasers how much high land they were acquiring.

20. A public road touching a lake does not necessarily make the lake public. Court decisions indicate that highways are for transportation purposes only and do not constitute legal points of entry onto lakes or streams unless they were dedicated for that implied or expressed purpose. Public access involves access via publicly-owned frontage, either on the lake itself or on connecting navigable streams.

21. The Conservation Officer has no such duty or authority to stop anyone from molesting a lake level dam or from otherwise interfering with the lake level. If a normal lake level has been set, interference with it is a matter for other peace officers to handle. If no normal level has been set, it is a matter for private civil action.

22. Many of our lakes are shallow and swampy by nature, most of the time. Lakes are relatively short-lived in a geogological sense. We have thousands of extinct “lakes” and hundreds more in stages approaching extinction. Many of these dying lakes are in a distinctly abnormal condition when their levels are high enough to make them desirable.

23. Access to a public lake via publicly-owned frontage does not imply access to shores of adjoining private property. Many persons think that there is a belt of land along the water’s edge upon which the public is entitled to walk, regardless of ownership. There are no such public rights in private land. Entrance without permission upon private land is trespass, regardless of whether that land is upland or whether it lies within a foot of the water’s edge.