

Lake Levels:

WHAT EVERY DRAIN COMMISSIONER SHOULD KNOW

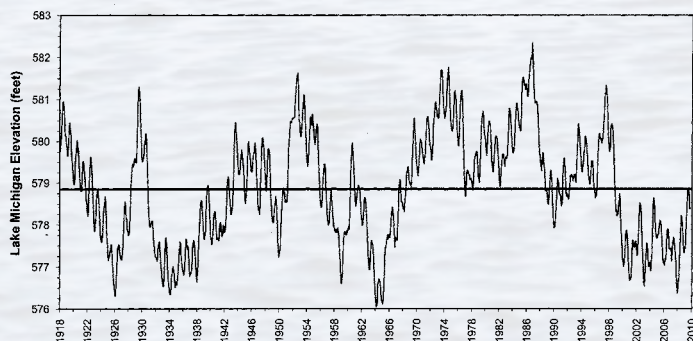
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Michigan has several hundred lakes with legally-established lake levels. On many of these lakes, the Drain (or Water Resources) Commissioner is responsible for maintaining the legal (normal) lake level. This article examines several issues that may help you with your lake level projects.

The Challenge

First, let's acknowledge that lake level maintenance can be controversial. It is not unusual to get calls on the same day from different residents on the same lake complaining that the lake level is both too high and too low. Let's also acknowledge that Drain Commissioners are neither rain-makers nor drought-busters. In fact, prolonged wet or dry periods can have a much more profound impact on lake level than anything a Drain Commissioner may do by operating a dam.

Lake levels naturally exhibit considerable fluctuation. Lake Michigan has fluctuated as much as six feet over the past ninety years (Figure 1). During periods of prolonged drought when lake levels are low, lake residents often want them raised. During periods of above-normal precipitation when lake levels are high, residents may request that the level be lowered. While lake level fluctuations are not as extreme in most inland lakes as Lake Michigan, a legal lake level may only temper the extremes. Getting the public to understand what can be accomplished by establishing a legal lake level can be challenging.



Lake Michigan Lake Level, 1918-present. Source: US Army Corps of Engineers.

The Law

Legal lake levels in Michigan are established under provisions of Part 307, Inland Lake Levels, of the Natural Resources and Environmental Protection Act (NREPA), PA 451 of 1994, as amended (MCL 324.30701 – 324.30722), hereinafter referred to as the "Act." The Drain Commissioner is usually designated as the delegated authority required to perform the duties required under the Act. Below is an overview of lake level proceedings along with some helpful hints on how to manage your lake level projects.

Preliminary Steps

Lake level projects can be initiated by either a motion of the County Board of Commissioners or by petition to the County Board of 2/3 of owners of land abutting the lake.¹ Before proceeding on a motion or petition filed, the County Board may require a preliminary study by a licensed professional engineer.

In accordance with Section 324.30703(2) of the Act: A preliminary study shall include all of the following:

- The feasibility of a project to establish and maintain a normal level of the inland lake.
- The expediency of the normal level project.
- Feasible and prudent alternative methods and designs for controlling the normal level.
- The estimated costs of construction and maintenance of the normal level project.
- A method of financing initial costs.
- The necessity of a special assessment district and the tentative boundaries if a district is necessary.
- Other information that the county board resolves is necessary.

It should be noted that, in addition to the above-listed items, the preliminary study must address, there are a number of additional issues the Court must consider in its determination of a normal level. Be aware that these issues, discussed later in the article, may also need to be addressed during the



Glen Lake Dam in Leelanau County

study phase. The County Board may require a cash payment up to \$10,000 from petitioners to cover preliminary study costs.

If, based on the results of the preliminary study, the County Board finds it expedient to establish a legal or normal lake level, it directs the Prosecuting Attorney or other legal counsel to initiate lake level proceedings in the Circuit Court. The Court can be petitioned to determine a normal lake level and to establish a special assessment district if the County Board determines by resolution a special assessment district is necessary.

Keep in mind that, while lake level projects begin with the County Board of Commissioners, they usually end with the Drain Commissioner. Once a normal lake level is established, it is most often the Drain Commissioner that is the delegated authority responsible for maintenance of the lake level. Over time, there may be costs associated with repairs, engineering inspections, and other maintenance issues. Thus, it makes sense for the County to petition the Court to establish a special assessment district, even if all preliminary costs and initial construction costs are covered. In the absence of a Court-established special assessment district, the Drain Commissioner may not have a mechanism in place to finance necessary maintenance.

The Circuit Court Hearing

In accordance with the Act, once a civil action has been filed, the Court must hold a public hearing. Notice of the hearing must be published, with the publication in a newspaper of general circulation in the County once each week for three weeks prior to the date of the hearing. Notice must also be given by first-class mail at least three weeks prior to the date of the hearing to all of the following: property owners within the tentative special assessment district, the governing body of each political subdivision in which the lake is located, and to the governing body of each affected political subdivision. In addition, the Prosecuting Attorney or legal counsel must serve notice on the Michigan Department of Natural Resources and the Environment (MDNRE) at least 21

days prior to the date of the hearing.

There are a number of issues that the court must consider in its determination of a normal lake level for an inland lake. Section 324.30707(4) of the Act states:

- (4) In a determination of the normal level of an inland lake, the court shall consider all of the following:
 - (a) Past lake level records, including the ordinary high-water mark and seasonal fluctuations.
 - (b) The location of septic tanks, drain fields, sea walls, docks, and other pertinent physical features.
 - (c) Government surveys and reports.
 - (d) The hydrology of the watershed.
 - (e) Downstream flow requirements and impacts on downstream riparians.
 - (f) Fisheries and wildlife habitat protection and enhancement.
 - (g) Upstream drainage.
 - (h) Rights of riparians.
 - (i) Testimony and evidence offered by all interested persons.
 - (j) Other pertinent facts and circumstances.

The court hearing is where the “rubber hits the road.” To provide sufficient findings for the Court to render a sound lake level decision, the preliminary study may need to address items (a) through (g) above, in addition to engineering, feasibility, financing, and cost issues.

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Silver Lake Dam in Oceana County

Lake level proceedings culminate in an order from the Court setting the normal lake level and establishing a special assessment district, if necessary. The Court has continuing jurisdiction, and may provide for a departure from the normal level to accomplish the purposes of the Act.

The Special Assessment District and Hearing on Roll

In accordance with the Act, special assessments may be levied against privately-owned parcels, political subdivisions of the state, and state-owned lands under the control of the MDNRE.

With respect to privately-owned parcels, special assess-

ment districts for lake level projects generally include those properties that directly benefit from the establishment and maintenance of a normal lake level. In most cases, this will include all properties abutting the lake and back lot properties with deeded or dedicated lake access.

As with all special assessment proceedings, procedures with respect to the publication and mailing of hearing notices must be followed closely. Notice must be published twice in a newspaper that circulates within the special assessment district, with the first publication at least 10 days prior to the date of the hearing. In addition, notice must be mailed first-class to each property owner in the special assessment district at least 10 days prior to the meeting. The mailed notice must include a statement that appearance and protest at the hearing, either in person or by letter, is required to appeal the amount of the special assessment.

Before construction is begun on a lake level project, the Act requires that the County Board approve the cost and special assessment roll by resolution. The special assessment roll is final and conclusive unless appealed in a court of competent jurisdiction within 15 days after County Board approval.

Construction and Maintenance

Normal level is defined in Section 324.30701(h) of the Act and means:

the level or levels of the water of an inland lake that provide the most benefit to the public; that best protect the

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public health, safety, and welfare; that best preserve the natural resources of the state; and that best preserve and protect the value of property around the lake. A normal level shall be measured and described as an elevation based on national geodetic vertical datum.

When a lake level is established, the Drain Commissioner should request that the project surveyor or engineer establish a permanent benchmark in the vicinity of the lake level control structure. This benchmark will prove invaluable in the future if the structure needs to be replaced or modified. Also, the Drain Commissioner should request that the datum used to reference the benchmark and the location of the benchmark be included on engineering plans.

In situations where a normal lake level has been established but the County does not own the property upon which the lake level control structure is located, permanent easements over the property should be acquired to ensure the appropriate party has access to the site for future repairs and maintenance.

Sometimes, when lake levels are low, property owners will ask the Drain Commissioner to drill augmentation wells or pump water to the lake from another source. While such projects are contemplated under the Act, these decisions are discretionary and the delegated authority is not mandated to take such action. In fact, lake augmentation will receive considerable regulatory scrutiny and acquiring a MDNRE construction permit would likely be expensive and difficult.

Under the Act, a professional engineer must conduct an inspection of the dam every three years; up to \$10,000 can be spent annually for maintenance and repair without approval of the County Board. Deficiencies identified during these periodic inspections should be addressed as quickly as possible. Remember, "an ounce of prevention is worth a pound of cure."

Practical Considerations

People tend to be very passionate about lake level issues and the Court proceedings will often seem to generate more heat than light. The more factual information that is available to the Court regarding potential environmental impacts, technical feasibility and costs, the better.

Once a lake level is established, maintain detailed records of lake level and precipitation. These records can be very useful in illustrating historical fluctuations in lake level, seasonally and year-to-year. Lake level information can be very useful in educating lake residents about natural variations that occur over time. By monitoring lake level and precipitation over time, you will be in a much better position to gauge how a particular lake responds to storm events and can make timely adjustments to your lake level structure. With recent advances in monitoring technology, it may now be possible to place monitoring equipment that can provide real-time lake level and precipitation readings.

There are many engineering, environmental, and legal issues that must be addressed in a lake level project. Given the myriad of issues and costs associated with lake level projects, one can ill-afford a procedural flaw in a lake level proceed-



Lake Level Control structure for upper Crooked Lake in Barry County

ing. Prior to embarking on a lake level project, Drain Commissioners should consider retaining experienced engineering and legal counsel.

Lake level projects can present unique challenges. Often, lake level maintenance is a delicate balancing act between competing and sometimes divergent interests. At the end of the day, if you get two calls back-to-back, one saying the lake level is too high and the other saying the level is too low, the level may be right where it should be.

Duties of the Delegated Authority

(Modified from MDEQ Guidance)

- Retain a licensed professional engineer to prepare the preliminary study, when determined necessary by the county board.
- Determine special assessment district boundaries to be considered for confirmation by the circuit court.
- Provide testimony at the court lake level hearing.
- Prepare the special assessment roll.
- Provide proper notice and hold a hearing on the special assessment roll.
- Provide for the preparation of the final engineering plans for the project.
- Acquire necessary construction permits for the project.
- Construct necessary lake level control facilities.
- Maintain the normal lake level established by the circuit court.
- Retain a licensed professional engineer to prepare a dam safety inspection report every three years.
- Perform necessary maintenance and repair.

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¹ The Michigan Department of Natural Resources and the Environment (MDNRE) may also initiate a civil action in circuit court to have a normal lake level determined