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Sent:	Tuesday, April 8, 2025 8:55 AM
То:	Darwin McClary
Cc:	Sonja Stout; Daniel Nelson; Barry Jim; Teresa Rutt; gbelko@mcka.com; Matthew Gibb; Lynsey Blough; Dino Serraiocco
Subject:	Fwd: LOLA Input - Planning Commission April 7, 2025 Meeting Agenda 8.A Master Plan Amendment #3 - Strategic Action Plan Draft #2
Attachments:	No More Marinas - 10-28-2024.docx; Gmail - RE_ Marina permit and boat overcrowding on Lake Orion - Robert Primeau DNR Sept 2022.pdf; Fisheries Report 37 - Wake Boat Study.pdf; LOLA Address to Orion Township Board and Village Council - May 2024.pdf; Lake Overcrowding - LOLA Meeting with Orion Village and Township - 4-5-2023 Rev 2.pdf

Darwin,

Per the discussion and motion in last night's Planning Commission meeting, the Master Plan will be coming before the Village Council at their next meeting on April 14th. Would you please make our Lake Orion Lake Association (LOLA) input available to the council prior to the meeting and in the meeting packet prepared and distributed for the meeting.

Thank you.

George Dandalides President, Lake Orion Lake Association

Dan Nelson President Elect, Lake Orion Lake Association

-------Forwarded message ------From: George Dandalides <george.d.dandalides@gmail.com
Date: Sun, Apr 6, 2025 at 10:33 PM
Subject: LOLA Input - Planning Commission April 7, 2025 Meeting Agenda 8.A Master Plan Amendment #3 - Strategic Action Plan Draft #2
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Village of Lake Orion Planning Commission:

As has been communicated to the Planning Commission, the Village Council, the Village Manager, and the Village Planner multiple times over the past two years, we wish to reiterate the need for the Lake

Orion Village to address the lake issues members of the Lake Orion Lake Association (LOLA) have brought forward through our LOLA Board. Most of these have been part of the Village Master Plan but have not been investigated or addressed.

As you are aware, LOLA's purpose is "to provide effective communication between its members and governmental agencies relating to all activities that may affect its members". We have no authority and must work through our local government(s) to address issues. Many of our members' concerns fall under Master Plan Objective 3-C Protect Lake and Water Quality. We would like to point out that in the data presented on pages 43 and 55 of the meeting agenda packet, there is significant community support for Objective 3C. In the responses to question 13 on page 43 of the meeting packet, the respondents rated Goal 3. Environment: Protect Village ecosystems by recognizing these areas as key assets, implementing reasonable regulations, and ensuring public education and enjoyment at **54%Strongly Agree with an additional 33% Agree**. We would similarly point out that on page 55 of the agenda packet, the respondents rated Objective 3C Protect Lake and Water Quality at **92% High Priority**. The following are the major issues our members raise through LOLA, which have been part of the current Master Plan in Objective 3-C: Protect lake and water quality and educate residents and visitors about the Village's unique environment.

- Lake Overcrowding Keyholing. Addressing keyholing through ordinances and enforcement has been part of Objective 3C of the current Master Plan. LOLA met with the Village Manager and the Township Supervisor on April 5, 2023 and presented proposed ordinance revisions at that time. We addressed the same issue with Village Council in a presentation at the May 28, 2024 council meeting. Nothing has come from either of these discussions. Copies of both presentations made by LOLA are attached for reference.
- Lake Overcrowding Marina Permits. Also tied to the keyholing issue, the issuance of marina permits needs to be addressed. Currently, neither the village nor the township have provisions to regulate overcrowding through marina permits. The impact is twofold. First, residents are renting seasonal dock space (keyholing) without obtaining the required marina permit. Second, businesses and developers are obtaining permits through EGLE allowing them to rent dock space "legally". We have contacted EGLE with regard to marina permits and lake overcrowding, and this was their response: "Generally, we don't regulate the number of boats on lakes. That is sometimes regulated locally by municipalities, but isn't something the State does. We do regulate the size and orientation of a marina when it is being built or reconfigured we are looking to make sure that what's being

proposed isn't interfering with adjacent riparian areas, with public navigations, or with regulated resources". The bottom line is we need to rely on the local municipalities to consider lake overcrowding. We need the village and township to take this on and require local marina permits. The correspondence with EGLE is also attached for reference. This was also addressed in the April 2023 and May 2024 presentations, as well as the October 2024 letter presented to the Planning Commision and Village Council by LOLA Board Members Amy Michajlyszyn and Michelle Dumeah. (also attached for reference)

• Water quality and shoreline erosion. In recent years, wake surfing has increased in popularity across the country, the state, and Lake Orion. In July of 2023, the Michigan DNR completed an in depth study on the effect of wake boats operating in high energy wake mode on shoreline erosion and bottom sediment resuspension and published <u>Fisheries Report 37 - A Literature Review of Wake Boat Effects on Aquatic Habitat</u>. They concluded that to reduce the negative effects of these high energy wakes, operation in this mode should follow the following two guidelines listed in the Executive Summary on page 4 of that report: 1) Boats operating in wake-surfing mode or

wake-boarding mode, during which boat speed, wave shapers, and/or ballast are used to increase wave height, are recommended to operate at least 500 feet from docks or the shoreline, regardless of water depth, and 2) Boats operating in wake-surfing or wake-boarding modes are recommended to operate in water at least 15 feet deep. We believe the village should be working to promote responsible high energy wake operation in areas of our lake that meet these recommendations. (also addressed at the May 2024 council presentation) A copy of <u>Fisheries Report 37</u> is attached for reference.

• Deep water drawdown frequency - 3 yrs vs. 5 yrs. This is in the current Master Plan as Objective 3-C Bullet 6. This appears to have fallen off the proposed Master Plan revisions (page 65 of the meeting packet) as a village objective and proposed to be a LOLA task to address lake issues. As pointed out earlier, LOLA has no authority in this regard. We would be happy to assist in partnership, but the objective should remain in the Master Plan and led by the village.

The lake is probably the biggest asset of the Lake Orion Community and as such, should be a high priority of our leadership. We are asking that these issues remain in the Master Plan as it is revised and they be considered high priority. LOLA is happy to be in partnership with both the village and the township as we work to develop reasonable solutions, but should be led by our local municipalities.

Thank you for your consideration.

George Dandalides President, Lake Orion Lake Association (LOLA)

Dan Nelson President-Elect, Lake Orion Lake Association (LOLA)



STATE OF MICHIGAN DEPARTMENT OF NATURAL RESOURCES

FR37

July 2023

A Literature Review of Wake Boat Effects on Aquatic Habitat

James Francis, Joel Nohner, John Bauman, and Brian Gunderman



FISHERIES DIVISION FISHERIES REPORT 37

www.michigan.gov/dnr/

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Michigan Department of Natural Resources Fisheries Report 37, 2023

A Literature Review Of Wake Boat Effects On Aquatic Habitat

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EXECUTIVE SUMMARY

The operation of wake boats in a manner that creates large waves can erode shorelines and resuspend sediments and is an emerging threat to natural resources in inland lakes. Wake boats can produce waves with 1.7–17 times the energy of other comparable-sized powerboats and their propellers generated enough turbulence to resuspend bottom sediments in water up to 33 feet deep. The large waves generated by wake boats take between 400–1,023 feet to dissipate to heights and wave energies observed 100–200 feet away from typical boats operating at cruising speed. Further, the use of ballast tanks in wake boats results in a dramatic increase in risk for transporting Dreissenid mussels and other aquatic invasive species and pathogens among water bodies. The cumulative negative effects of wake boats on natural resources has the potential to lead to loss of habitat, resulting in the decline of aquatic ecosystems and angling opportunity. These concerns can be mitigated by operating farther from shore to allow waves to dissipate before reaching shore, operating in deeper water to prevent bottom scour and resuspension of sediments, and disinfecting ballast tanks.

Michigan's current boating laws and regulations are intended to both promote public safety and avoid property damage but were created prior to the commercialization and popularization of wake boats in the early 2000s. As a result of the large waves and increased scour caused by these vessels, the existing 100-foot operating buffers around docks and shorelines on inland lakes are not sufficient to protect aquatic resources. The Michigan Department of Natural Resources, Fisheries Division (Division) recognizes the recreational value and popularity of wake boats, and recommends the following voluntary best operating practices in support of the continued use of wake boats while minimizing the effects on natural resources:

1. Boats operating in wake-surfing mode or wake-boarding mode, during which boat speed, wave shapers, and/or ballast are used to increase wave height, are recommended to operate at least 500 feet from docks or the shoreline, regardless of water depth.

2. Boats operating in wake-surfing or wake-boarding modes are recommended to operate in water at least 15 feet deep.

3. Ballast tanks should be completely drained prior to transporting the watercraft over land.

It is recommended that awareness and voluntary adoption of these best operating practices be encouraged through outreach actions and materials to educate wake boat operators.

INTRODUCTION

Wake boats are powerboats specially designed to increase wave height for watersports. The hull is shaped to achieve significantly increased wakes, and many have a hydrofoil device that lowers the stern when the boat is under power. Most wake boats also have built-in ballast tanks that can be filled with lake water to increase the weight in the stern of the boat and create larger waves. While wake-boarding, a rider is towed with a rope, usually at a speed of 20–23 mph. They use the wake of the boat to perform jumps and tricks. wake-surfing involves a person trailing behind a boat on a short surfboard and surfing on the boat's wake without being attached to the boat by a rope. wake-surfing generally occurs at speeds of 9–11 mph. Many wake boats can operate in modes to support wake-surfing or wake-barding and have the ability to significantly increase wave height through ballast and wave shapers at the required speed for the respective activity. Through direct observations by Division employees and feedback from the public, it has become clear that waves generated by wake boats create concerns about risks to aquatic natural resources.

The State of Michigan, with the Department of Natural Resources as the trustee, has an obligation to preserve and protect natural resources as required by Article 4, Section 52 of the Michigan Constitution. The Division's mission is to protect and enhance Michigan's aquatic life and habitats for the benefit of current and future generations. Its strategic plan (MDNR 2023) serves as a guide to natural resource managers tasked to maintain healthy aquatic ecosystems and provide diverse freshwater fishing and recreational opportunities that enhance quality of life in Michigan. The first goal listed in this plan is to "ensure healthy aquatic ecosystems and sustainable fisheries". In addition, the Division has identified specific habitat conservation priorities for the nearshore zones of lakes through its Wildlife Action Plan (MDNR 2015). In the context of these priorities to conserve nearshore aquatic habitats, the goals of this document are to review the current state of knowledge regarding the effects of wake boat activity on natural resources and provide the Division's position on the operation of wakeboats to protect aquatic resources held in public trust.

The Michigan Department of Natural Resources is obligated to preserve and protect natural resources. In support of that duty, Fisheries Division routinely produces scientific research and literature reviews through Fisheries Reports that address potential effects on aquatic natural resources. This Fisheries Report includes a review of the existing scientific literature regarding wake boats and provides best operating practice recommendations for wake boat operation to minimize effects on aquatic natural resources. It does not address public safety or social considerations related to wake boat operation, nor does it provide Departmental recommendations for regulation or legislation.

ENVIRONMENTAL EFFECTS OF WAKE BOATING

The environmental effects of powerboating have been well documented. Waves from powerboats can increase shoreline erosion, decrease water clarity and plant abundance (Asplund and Cook 1997), and increase phosphorus in the water column (Yousef et al. 1980). Recently, there has been an increase in the popularity of wake boats (Gouday and Girod 2015; National Marine Manufacturers Association 2021) which use ballast, wave shapers, and other hull designs to produce waves that are substantially larger and more powerful than those generated by the typical powerboat. Aftermarket wave-shaping fins are sometimes used to increase wake size even on typical motorboats; Marr et al. (2022) found that these devices increased wave height, energy, and power to create waves similar to wake boats.

MacFarlane (2018) found that wave energy from ballasted wake-surfing craft was 5–17 times higher than a benchmark speedboat and Marr et al. (2022) found that waves produced by wake boats were 2–3 times higher, had 3–9 times more energy, and were 6–12 times more powerful than a typical motorboat. Mercier-Blais and Prairie (2014) compared wave energies produced by a wake boat operated in wake-surfing (10 mph, one ballast tank filled), wake-boarding (20 mph, both ballast tanks filled), and cruising (30 mph, empty ballast tanks) modes and discovered wave energies were significantly different between operating modes at a distance of 328 feet. The waves created in wake-surfing mode were on average 1.7 times higher than those created in cruising mode. Similarly, Water Environmental Consultants (2021) showed that waves produced by a wake boat in wake-surfing and wake-boarding mode had 581% and 68% more energy, respectively, than waves produced by the same vessel operated in cruising mode at a distance of 100 feet. Both Gouday and Girod (2015) and Ruprecht et al. (2015) found that wake boats operating in wake-surfing mode produced the largest waves compared to other modes, with maximum wave energy approximately four times that of waves generated in wake-boarding mode.

The energy created by such large waves requires a substantial distance to dissipate; Mercier-Blais and Prairie (2014) used statistical models to determine that the distance required for wake boat-generated waves to dissipate completely is approximately 984 feet. This is further supported by Water Environmental Consultants (2021), who determined that waves from a wake boat in wake-boarding and wake-surfing mode would need distances of 225 feet and 950

feet, respectively,

to dissipate to the wave heights observed 100 feet from the same boat in cruising mode. Additionally, Marr et al. (2022) found that wake boat waves required substantial distances to attenuate to reference conditions of a typical motorboat operating in planing mode at a distance of 200 feet for wave height (>500 feet), energy (>575 feet), and power (>600 feet, the maximum distance at which waves were measured in the study). In contrast to the studies above, Fay et. al (2022) claims that operating distances of 200 feet are sufficient to reduce wave energy and minimize erosion and resuspension. However, these conclusions are inconsistent with other studies and are built upon substantive analytical and methodological concerns. For example, Fay et al. admit that their methods for modeling waves are not appropriate beyond distances of 100 feet. Therefore, our assessment of threats to Michigan's natural resources relies more heavily on results from studies that conducted direct measurements and/or used appropriate models and methods. From those studies, we found that wake boat waves require at least 400–1,023 feet to dissipate to energies of a typical motorboat at 100–200 feet from the sailing line or have minimal resource impacts.

SHORELINE EROSION

Shoreline erosion can lead to degradation of fish habitat and water quality due to physical disruption of rooted plants and resuspension of sediment and nutrients and is a concern for lakefront property owners because it results in a loss of property and can damage infrastructure. Sedimentation can degrade habitat and threaten fishes (Muncy 1979; Dombeck et al. 1984, Ventling-Schwank and Livingstone 1994), and the shoreline armoring that typically is installed by property owners experiencing erosion degrades fish habitat as well (Jennings et al. 1999, Wehrly et al. 2012). The main factors that influence shoreline erosion are wave energy, aquatic plants, the slope of the nearshore and bank areas, and characteristics of the bank material. As larger waves strike a shoreline, they are able to dislodge and move more and larger particles (NRCS 1996, NRCS 1997, Priestas et al. 2015). Recreational boating activity can exacerbate erosion by increasing the wave energy that reaches the shoreline (Johnson 1994; Nanson et al. 1994; Bauer et al. 2002), and it follows logically that the increased wave energies produced by wake boats intensify this effect (Table 1). A recent study on 1,700-acre Whitestone Lake in Ontario (Houser et al. 2021) showed that 61-72% of total wave energy originated from powerboats. Water Environmental Consultants (2021) compared wave energy from wake boats to the monthly maximum wave energy from wind for two locations in Lake Rabun, Georgia; when wake boats passed 100 feet from shore, the wave energy produced in wake-boarding and wake-surfing modes was 553% and 2,546% higher, respectively, than the monthly maximum energy from winddriven waves. Wake-boat-induced wave energy was 192% higher for wake-boarding mode and 679% higher for wake-surfing mode, compared to wind-driven wave energy, when the wake boats passed 500 feet from shore. It would take between 225 feet (wake-boarding mode) and 950 feet (wake-surfing mode) for waves to decrease to the 0.8-foot wave height typically observed 100 feet from a cruising wake boat. Even though these distances would allow the waves to decrease to similar heights, the waves from wake-boarding and wake-surfing modes had longer wave periods, and therefore more energy, than the cruising mode wake. Wake boats create larger wakes than traditional watercraft, therefore the greater energy of waves created by wake boats operating in wakeboarding or wake-surfing mode are likely to exacerbate boat wave induced erosion.

Many construction projects that address shoreline erosion occur below the ordinary high-water mark and are regulated by the Michigan Department of Environment, Great Lakes and Energy under Part 301 (Inland Lakes and Streams) of the Natural Resources and Environmental Protection Act (NREPA 1994a). As part of the Part 301 permit review process, the Division is consulted to ensure that projects do not adversely affect fisheries resources. In the past several years, applicants frequently have listed erosion from wake boats as part of their rationale for shoreline armoring. This reactive response of hardening shorelines, as opposed to proactively reducing the erosive forces at the shoreline caused

by wake boats, will only lead to greater environmental degradation from armored shorelines due to wave reflection off these structures.

SEDIMENT RESUSPENSION

Sediment resuspension increases nutrients and decreases water clarity in lakes, subsequently reducing the ability of fish to find food, the depth to which aquatic plants can grow, and the dissolved oxygen content within the water column (Gardner 1981; Canfield et al. 1985; Chambers and Kaiff 1985; Barrett et al. 1992; Irvine et al. 1997; Stuart-Smith et al. 2004; Trebitz et al. 2007). Numerous studies indicate that decreases in water quality (e.g., Jacobson et al. 2008; Phelps et al. 2019) can stress or kill fishes. In addition, as sediments are resuspended and nutrients become available in the water column, excessive algae growth can occur. Boat wakes resuspend sediments, especially fine substrates such as silt or sand, in shallow waters (USACE 1994) and this resuspension increases with wave energy. Existing studies have shown that resuspended sediments caused by powerboats increase turbidity and phosphorus concentrations in rivers, lakes, and shallow experimental ponds (Yousef et al. 1980; Johnson 1994; USACE 1994; Asplund 1996, 1997; Anthony and Downing 2003).

Wake boats have greater potential to exacerbate sediment resuspension through increased wave energy and propeller turbulence (Table 1). Mercier-Blais and Prairie (2014) determined sediment resuspension was significantly higher than background conditions up to 492 feet from wake boats operating in wake-surfing mode and 656 feet from wake boats operating in wake-boarding mode and was highest when wake boats were operated in wake-surfing mode at a speed of 10 mph. Mercier-Blais and Prairie's extrapolations indicate that distances of 675 and 938 feet from the line of travel are required for wake boat waves to produce sediment resuspension equivalent to normal levels on ~1,136-acre Lake Lovering and ~439,847-acre Lake Memphremagog, respectively. Previous studies of typical powerboats indicated that propellers from outboard engines create turbulence that can reach as deep as 10 feet (Gucinski 1982; Keller 2017). Field testing by Raymond and Galvez-Cloutier (2015) found that wake boat propellers generated water velocities with the capacity to resuspend unconsolidated sand, silt, and smaller organic materials at a depth of 15 feet while the boat was in wake-boarding or wake-surfing modes. Models developed by Ray (2020) calculated that modern wake boats can cause sediment resuspension in water down to 33 feet deep.

Source	Distance (ft)	Data type	Considered	Notes
Water Environment Consultants (2021)	100	Field data	No	Wave energy from wake-boarding (553%) and wake- surfing (2,546%) greater than monthly maximum wind- driven wave energy.
Water Environment Consultants (2021)	100	Field data	No	Wave energy from wake-boarding (68%) and wake- surfing (581%) greater than cruising vessel wave energy.
Ray (2020)	135	Field data	No	Wake boat wave 9 inches high.
Fay et al. (2022)	200	Mathematical model	No	Claims minimal impacts at this distance.
Water Environment Consultants (2021)	225	Mathematical model	No	Wave height attenuation from wake-boarding to wake boat cruising at 100ft. Note that wave power may still be greater and that wake boat weight and hull design increase cruising wakes, thus this is an underestimate relative to typical boats
Water Environment Consultants (2021)	300	Field data	No	Wake-boarding wave energy at 300ft similar to wake boat cruising energy at 100ft. Note that wake boat weight and hull design increase cruising wakes, thus this is an underestimate relative to typical boats.
Goudey and Girod (2015)	300	Field data	No	Measured large waves during wake-boarding (9.87in) and wake-surfing (12.92in) in deep water.
Ray (2020)	300	Field data	No	Wake boat wave 7.75 inches high.
Mercier-Blais and Prairie (2014)	328	Field data	No	Energy of wake waves decreased significantly, but not assessed relative to typical motorboat.
Macfarlane et al. (2018)	400	Field data	Yes	Maximum wave height and energy similar to reference motorboats.
Mercier-Blais and Prairie (2014)	492	Field data	Yes	Sediment resuspension observed from wake-surfing.
Water Environment Consultants (2021)	500	Field data	Yes	Wave energy from wake boating (192%) and wake- surfing (679%) greater than monthly maximum wind- driven wave energy.
Marr et al. (2022)	>575	Field data	Yes	Total wave energy similar to reference motorboat at 200ft.
Marr et al. (2022)	>600	Field data	Yes	Total wave power similar to reference motorboat at 200ft.
Mercier-Blais and Prairie (2014)	656	Field data	Yes	Sediment resuspension observed from wake-boarding.
Mercier-Blais and Prairie (2014)	675–938	Mathematical model	Yes	Estimated distances at which a wake boat waves result in equivalent sediment resuspension to normal conditions on two lakes.
Mercier-Blais and Prairie (2014)	879–1023	Mathematical model	Yes	Estimated distances at which a wake boat waves result in equivalent turbulent kinetic energy to normal conditions on two lakes.
Water Environment Consultants (2021)	950	Mathematical model	Yes	Wake-surfing wave height attenuation to typical boat at 100ft.Note that wave power is likely greater and that wake boat weight and hull design increase cruising wakes, thus is an underestimate relative to typical boats.
Mercier-Blais and Prairie (2014)	984	Mathematical model	No	Modeled complete dissipation of wake boat waves.
Ray (2020)	1000	Field data	No	Wake boat wave 4 inches high.

Table 1. Summary of wake boat effects measured or modeled at various distances from the boat's line of travel, and whether those distances were considered in determining the range of distances at which wake boat waves dissipate to energies of a typical motorboat at 100–200 feet from the sailing line or have minimal resources impacts.

AQUATIC PLANTS

Reductions in native aquatic plants will affect fish populations. Aquatic vegetation provides rearing areas for juvenile fishes (Bryan and Scarnecchia 1992), allows for increased fish growth and total fish biomass (Radomski and Goeman 2001; Nohner et al. 2018), and reduces wave energy in the nearshore zone. While there are no studies that directly address the effects of wake boats on aquatic plants, previous research on powerboats provides a basis for inference. For example, Asplund and Cook (1997) documented 20% reductions in aquatic plant coverage due to the physical disturbance caused by recreational boating in Wisconsin, which has similar 100-foot regulations to Michigan. They also foundthat excluding powerboats from experimental plots dramatically increased aquatic plant biomass, coverage, and shoot height compared to areas with boats. Results indicated that powerboats affected plant growth through scouring of the sediments and direct cutting as opposed to increased turbidity, and it was unclear if the amount of plant material lost would have larger-scale or long-term impacts on the ecosystem (Asplund 2000). Murphy and Eaton (1983) documented an inverse relationship between recreational boating traffic and both submersed and emergent aquatic plant abundance in canals in British Columbia. Since wake boats produce greater wave energy, propeller turbulence, and sediment resuspension compared to the powerboats observed in these studies, it follows that wake boats could significantly disrupt native aquatic vegetation in inland lakes.

AQUATIC INVASIVE SPECIES

Aquatic invasive species (AIS) are non-native organisms that cause significant negative effects when introduced to inland lakes and other aquatic ecosystems. The State of Michigan's AIS Management Plan (MDEQ 2013) prioritizes the need for preventing accidental AIS introductions, which may be greatly increased by wake boats due to the presence of large ballast tanks that can be filled from or emptied directly into the water body they are operating on. For example, research has shown that ballast tanks from wake boats operated on a lake with the invasive Zebra Mussel *Dreissena polymorpha* typically carried 247 Zebra Mussel veligers per sample (Doll 2018), which was much greater than stern drive motor compartments (13 veligers per sample), outboard motor lower units (1 veliger per sample), live wells, or bilges. Although wake boat ballast tanks are typically emptied before trailering, they are rarely ever completely dry which increases the survival time for invasive species potentially trapped inside. Doll (2018) found that 5% of zebra mussel veligers remained alive in ballast tanks after 48 hours. Transportation of other invasive species and fish pathogens is also possible. Furthermore, the greater propeller turbulence and increased scouring caused by wake boats may result in fragmentation and proliferation of aquatic invasive plants already found in the waterbody (Keller 2017).

COMPOUNDING FACTORS

The effects of wake boats are not the only changes occurring on Michigan's lakes. Shoreline armoring such as seawalls and riprap are being installed throughout the state, and this shoreline armoring reflects wave energy back into the lake as well as laterally toward neighboring properties. Shoreline armoring degrades up to 54% of lake shorelines in some highly populated areas (Wehrly et al. 2012), which are also the areas that receive greater boating traffic. Shoreline armoring increases wave energy in lakes and is often present on lakes with wake boats, thus it exacerbates the effects of wake boats on aquatic resources. These effects are further compounded by the reductions in aquatic vegetation (Radomski and Goeman 2001) and large woody habitat that historically occurred throughout Michigan's inland lakes (Wehrly et al. 2012). Aquatic plants and large woody habitat reduce wave energy in the nearshore zone, so their removal creates circumstances for increased wave erosion and reflection.

CURRENT BOATING LAW

Existing boating law in Michigan states, "A person shall not operate a vessel on the waters of this state at a speed greater than slow-no wake or the minimum speed necessary for the vessel to maintain forward movement when within 100 feet of the shoreline where the water depth is less than 3 feet, as determined by vertical measurement, except in navigable channels not otherwise posted (NREPA 1994b)." Furthermore, reckless operation that disregards the safety or rights of others or endangers the property of others is illegal; causing damage with a vessel's wake is a specific example of recklessness identified in the most recent Handbook of Michigan Boating Laws and Responsibilities (MDNR 2021). These laws are intended to both promote public safety and avoid property damage but were created prior to the commercialization and popularization of wake boats in Michigan in the early 2000s. As a result of the effects of wake boats outlined above, the Division concludes that the current 100-foot buffer is not sufficient to protect public trust aquatic resources.

POTENTIAL SOLUTIONS

The negative effects of a wake boat decline as the boat travels farther away from the shoreline. Increasing the minimum distance that boats are allowed to operate at greater-than-no-wake speed near docks and shoreline would allow more time for wave energy to dissipate and increase protection of nearshore areas. For example, operating distances from certain structures, boats, and/or people has increased to 200 feet in South Carolina (South Carolina Public Act 124 of 2022) and Tennessee (Public Chapter No. 872, SB 2107). Similar legislation has been proposed in other states. However, if increased wake-boat buffer distance requirements are considered for smaller lakes, there may be less space for wake boats to operate above no-wake speed. This situation can be compounded if the lake has large shoals or shallow water areas less than 3 feet deep that would further restrict boat use. Therefore, a minimum lake size could be considered for wake boats. For example, Indiana law restricts operation of a boat at a speed greater than 10 mph on a lake less than 300 surface acres in size (Harwood 2017), Tennessee law does not permit wake-surfing or wake-boarding on lakes less than 50 acres or on lakes or areas with widths less than 400 feet, Oregon law (Chapter 119 of 2022, SB 1589) prohibits wake-surfing and restricts boats' operating weights on certain parts of the Willamette River, and the Cook County Commissioners banned wake boating on 728-acre Caribou Lake in Minnesota. The Vermont Department of Environment Conservation is currently considering a draft rule that would limit wake boats to lakes with at least 50 contiguous surface acres that are 500 feet from the shore and 20 feet deep, and wake boating would only be allowed to occur in parts of those lakes that meet these distance and depth requirements. Most relevant studies (Mercier-Blais and Prairie 2014; Ray 2020; Water Environment Consultants 2021; Marr et al. 2022) show that an operating distance of at least 500 feet is necessary to reduce concerns to shoreline disturbance, with some providing evidence for operating distances near 1,000 feet (Mercier-Blais and Prairie 2014; Ray 2020; Water Environment Consultants 2021) and others providing evidence for distances of at least 400 feet (Macfarlane et al. 2018). Our assessment of the available studies at this time is that at least a 500-foot buffer is necessary to protect aquatic natural resources.

Shallow water increases the likelihood that turbulence from wake boat propellers can scour the bottom, disrupt aquatic plants, and resuspend sediment; accordingly, a minimum water depth for wake boat operation would provide additional protection of aquatic resources (Keller 2017). Based on the field data for wake boats (Raymond and Galvez 2015), the Division recommends that wake boats operating in wake-surfing or wake-boarding mode do so in water that is at least 15 feet deep.

Ecozones, which protect significant ecological areas within lakes where the use of watercraft may be limited or prohibited for fish, wildlife, botanical resource management or the protection of users, could also be implemented to mitigate wake boat damage. The State of Indiana began using "ecozones" to protect aquatic habitat in 2000 (Harwood 2017; Asplund 2000), but current law in Michigan does not have a mechanism for an ecozone approach.

Education and awareness campaigns are an important component of a comprehensive approach to protecting inland lakes from damage caused by wake boats. Providing operational recommendations into educational materials on responsible wake boat operation in boating safety classes, and providing informational flyers with these recommendations to new wake boat owners may improve awareness and implementation of best operation practices. Similar education campaigns have been implemented elsewhere; for example, the State of Oregon requires boaters to complete an educational program to wake board and wake surf on certain sections of the Willamette River.

CONCLUSION

Wake boats provide a means of outdoor recreation, but the waves and propeller turbulence they generate can cause increased damage to aquatic environments through a number of mechanisms. The cumulative effects of these damages are expected to lead to loss of habitat and resulting declines in aquatic ecosystems and angling opportunities. The recommendations below are intended to provide best operating practices under which the recreational opportunities that wake boats provide can be enjoyed in a manner that minimizes harm to the natural resources and property of Michigan citizens:

1. Boats operating in wake-surfing mode or wake-boarding mode, during which boat speed, wave shapers, and/or ballast are used to increase wave height, are recommended to operate at least 500 feet from docks or the shoreline, regardless of water depth.

2. Boats operating in wake-surfing or wake-boarding modes are recommended to operate in water at least 15 feet deep.

3. Ballast tanks should always be drained prior to transporting the watercraft over land.

It is recommended that awareness and voluntary adoption of these best operating practices be encouraged through outreach actions and materials to educate wake boat operators.

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Approved by Randy Claramunt, Fisheries Chief, June 16, 2023



RE: Marina permit and boat overcrowding on Lake Orion

1 message

Primeau, Robert (EGLE) <PRIMEAUR@michigan.gov> To: George Dandalides <george.d.dandalides@gmail.com> Cc: "Hartz, Andrew (EGLE)" <HARTZA@michigan.gov> Wed, Sep 21, 2022 at 4:34 PM

Good afternoon George, appreciate the attention on these potential projects. We're aware of them, but have not received any permit applications yet, so what we can tell you in only general.

Generally, we don't regulate the number of boats on lakes That is sometimes regulated locally my municipalities, but isn't something the State does. We do regulate the size and orientation of a marina when it is being built or reconfigured – we are looking to make sure that what's being proposed isn't interfering with adjacent riparian areas, with public navigation, or with regulated resources – e.g. are the structures unduly interfering with lake resources – typically we do that in consultation with the DNR and its' somewhat site specific.

If a new owner is taking over an older marina, if they were not reconfiguring it they may not necessarily have to apply to us, as our involvement (in terms of marinas) only includes the construction impacts associated with them.

Robert Primeau

586-256-7274| primeaur@michigan.gov

From: George Dandalides <george.d.dandalides@gmail.com> Sent: Tuesday, September 20, 2022 2:15 PM To: Primeau, Robert (EGLE) <PRIMEAUR@michigan.gov> Subject: Marina permit and boat overcrowding on Lake Orion

CAUTION: This is an External email. Please send suspicious emails to abuse@michigan.gov

Good afternoon,

I am on the board of our Lake Orion Lake Association (LOLA), which is the Homeowners Association for the Lake Orion waterfront homeowners. Several large parcels of lakefront property was recently purchased by a local developer who plans to develop with high end apartment buildings. Our association is very concerned about water safety, and lake overcrowding with boats. We already have a problem with too many boats on the lake and are concerned this will only

make it worse. We are looking for guidance on any inland lake regulations that might come into play. The following are questions we have that maybe you can help us with.

- The developer's plans call for 63 docks on the three parcels, which represents an increase of 10 from what are currently in use. These docks would make room for a total of 115 boats, which is 46 over the number of boats currently docked along the same shoreline. Are there any regulations or guidelines in Michigan for boat density per acre of lake? As I stated earlier, we already have an overcrowding situation on the lake and an additional 46 boats seems significant.
- 2. One of the parcels he's purchased is the former Orion Marine location on the north end of the lake. I believe there was (or is) a marina permit for that area. Does that permit go with the sale, or will the developer need to reapply. There currently are gas pumps, a snack/party store, and a boat launch there, all of which the developer intends to continue operating. There are also a planned 25 docks, a boathouse, and slips for 47 boats on that site. There are currently 36 boats docked in that area. Does the current permit allow for this, and will it carry over with the new ownership?
- 3. The second parcel currently has four docks and 6 boats in total. The plan will be to have 14 docks with space for 23 boats. Will a marina permit be required there? Is there anything else required to add that many docks and boats?
- 4. The third parcel is on the southeast corner of the lake, adjacent to Snug Harbor. There are currently 24 docks, 27 boats, and one launch ramp associated with that area. The plan is to keep it at 24 docks and one launch ramp, but increase the boat capacity to 45 boats. Again, will a marina permit be required and anything else to add that many boats?

As an association, we are not against development of the property, however we are very concerned about additional overcrowding of the lake and the resultant pressure on safety. Any advice or guidance you could provide would be appreciated.

Thanks in advance.

George Dandalidies

President Elect - Lake Orion Lake Association

248-872-8630

george.d.dandalides@gmail.com

Lake Orion – Lake Overcrowding

Lake Orion Lake Association (LOLA) April 5, 2023

Lake Orion Chat Room – Tuesday March 21, 2023



Lake Orion Chat Room... Lori Lewek Millbauer · 36m · 🖪

Hi, I am looking for someone who is interested in temporarily renting their boat slip to us, on Lake Orion. I am aware you're not "supposed" to, but people do. I would prefer to pay someone in the community, who needs it, rather than the marina. We have already been on the lake for the last 10 years, but lost our slip to redevelopment. We are a quite family, we don't have loud groups or a lot of cars coming with us. Thank you!

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Issue and Concerns

- Issue:
 - Lake Orion has an area of approximately 740 acres
 - There are over 800 private lakefront residences around the lake
 - There are multiple permitted marinas on the lake
 - There is a DNR public access ramp with 34 available parking spaces
 - On any given summer weekend or holiday, the lake is overcrowded with watercraft traffic and becomes a serious water safety concern
 - There are a number of individual lakefront residents who choose to rent seasonal boat slips contributing to the overcrowding and safety concerns

Issue and Concerns

• Current situation:

- To legally rent a boat slip on a Michigan lake, the resident is required to apply and get approval for a marina through the Michigan Department of EGLE.
- Although there is a process to report suspected boat slip rental to the State, the DNR/EGLE does not have the resources to investigate and handle violations.
- The Village defines a marina as public or private and provides watercraft services in exchange for renumeration. It is difficult/impossible to prove renumeration.
- The Village requires a marina to secure the required permit from the State.
- The Village prohibits commercial use of boat houses and hoist; however docks are not included in this verbiage.
- The Village requires current watercraft registration to the owner or occupant of the lot, but this is specific to storage.

Propsal for Improvement

• Proposal for improvement:

- Update the definition of Marina to "with or without" renumeration.
- Update Article 13.11 D Boat Houses and Boat Hoists to include Docks and "RL zoning lot" description.
- Update Article 13.11 D
 - Add "RL zoning lot" to paragraph 3 to be consistent with paragraphs 1 and 2.
 - Eliminate paragraph 3.d "May not be used for commercial purposes".
 - Add Paragraph 4 "May not be used for commercial purposes". This will now include boat houses, boat hoists, and docks.
 - Add Paragraph 5 to require current watercraft registration to the owner/occupant of the lot similar to verbiage under Watercraft Storage.

Village of Lake Orion – Zoning Ordinance Proposal for Improvement

Article 2.02 - Definitions

MARINA. A public or private facility which adjoins an inland lake or stream and offers service for docking, loading or other servicing of watercraft in exchange for remuneration.



MARINA. A public or private facility which adjoins an inland lake or stream and offers service for docking, loading or other servicing of watercraft with or without remuneration.

Village of Lake Orion – Zoning Ordinance Proposal for Improvement

Article 13 General Provisions Section 13.11 D – Boat Houses and Boat Hoists

D. Boat Houses and Boat Hoists

- D. Boat Houses, Boat Hoists, and Docks (RL zoning lot)
 - 3. One (1) single boat house or one (1) permanent boat hoist larger than eight (8) feet in height or capable of hoisting more than one (1) boat at a time, and a seasonal boat hoist(s), may be permitted per RL zoning lot. The boat house or boat hoist:

d. May not be used for commercial purposes;

- 4. May not be used for commercial purposes. (RL zoning lot)
- 5. All watercraft on a hoist or docked at a residential (RL zoning) lot for (5) consecutive days or more shall be currently registered to the owner or occupant of that lot.

Where Do We Go From Here?

• Next Steps & Discussion:

- Would these changes enable enforcement of the State laws?
- What options are available at the State, Township, and Village levels to investigate and enforce these ordinance revisions?
- Are there similar changes that could be (or should be) made in the Township Ordinances?
- Do we have the resources available (State, Township, and Village) to investigate and enforce?

Proposed Changes to the Village Ordinances

LOT, ZONING. See ZONING LOT

MAJOR THOROUGHFARE. See STREET

MANAGER. The Village Manager of the Village of Lake Orion.

MANUFACTURED HOUSING. See DWELLING, MANUFACTURED

MARINA. A public or private facility which adjoins an inland lake or stream and offers service for docking, loading or other servicing of watercraft in exchange for remuneration.

MEZZANINE. See STORY, MEZZANINE

MOBILE HOME OR HOUSE TRAILER. See DWELLING, MOBILE HOME

MOBILE HOME PARK OR TRAILER PARK. A parcel or tract of land under the control of a person upon which mobile homes are located on a continual non-recreational basis and which is offered to the public for that purpose regardless of whether a charge is made therefore, together with any building, structure, enclosure, street, equipment or facility used or intended for use incidental to the occupancy of a mobile home, subject to conditions set forth in the Mobile Home Commission Rules and the Mobile Home Commission Act, Public Act 87 of 1987, as amended.

MOTEL. See HOTEL

MOTOR VEHICLE. A self-propelled vehicle designed, intended or used for the transportation of persons and/or property.

MOTOR VEHICLE REPAIR. The general repair, engine rebuilding, rebuilding or reconditioning of motor vehicles; collision service such as body, frame, or fender straightening and repair; overall painting, but not including undercoating of automobiles unless conducted in a completely enclosed spray booth.

MOTOR VEHICLE WASH ESTABLISHMENT. A building, or portion thereof, that is designed or used for the purpose of washing motor vehicles.

MORTUARY ESTABLISHMENT. See FUNERAL HOME

NATURAL FEATURES. Soils, wetlands, floodplains, water bodies, topography, vegetative cover, and geologic formations.

NET ACRE/ACREAGE. The area of a lot within its property lines or other designated area to be measured under this Ordinance that is calculated by deducting from its gross acreage, areas occupied or proposed for features or improvements that are to excluded by one or more provisions of this Ordinance.

Village of Lake Orion Zoning Ordinance

Page 2.20

MARINA. A public or private facility which adjoins an inland lake or stream and offers service for docking, loading or other servicing of watercraft with or without remuneration.

Article 13 – General Provisions November 2010

Setback From	Minimum Setback
Front lot line (RV only)	Behind front building line of house
Side lot line	3 ft.
Side street lot line	10 ft.
Rear lot line	3 ft.
Water lot line	25 ft.

- 4. Except as provided below, where any lot in a zoning district abuts or is traversed by a navigable lake or stream, no accessory building or structure shall be erected within 25 feet of the edge of said navigable lake or stream, except as permitted by Section 13.11.C., below.
- In the case of a double frontage lot, accessory buildings and structures shall observe front yard requirements on both street frontages.
- All accessory buildings and structures shall comply with setback and fire rating requirements in the Building and Fire codes.

C. Permitted Encroachments

Accessory structures such as patios and decks raised not more than eight (8) inches above the surrounding grade shall be permitted to encroach into a required rear or waterfront setback area.

D. Boat Houses and Boat Hoists

- 1. Seasonal boat hoist(s) are permitted on an RL zoning lot. A building permit is not required for a seasonal boat hoist.
- One (1) permanent boat hoist no greater than eight (8) feet in height with a one-boat capacity is permitted on an RL zoning lot, provided all state and federal permits and a zoning compliance or building permit are obtained. The height of the hoist is measured as the distance above the ordinary high water mark.
- 3. One (1) single boat house or one (1) permanent boat hoist larger than eight (8) feet in height or capable of hoisting more than one (1) boat at a time, and a seasonal boat hoist(s), may be permitted per lot. The boat house or boat hoist:
 - a. May not be greater than 14 feet in height at the peak of its roof. Height is measured as the distance above the ordinary high water mark.
 - b. May not contain any plumbing facilities except for hot and cold running water.

Boat Houses, Boat Hoists, and Docks (RL zoning lot)

- 1. Seasonal boat hoist(s) are permitted on an RL zoning lot. A building permit is not required for a seasonal boat hoist.
- 2. One (1) permanent boat hoist no greater than eight (8) feet in height with a one-boat capacity is permitted on an RL zoning lot, provided all state and federal permits and a zoning compliance or building permit are obtained. The height of the hoist is measured as the distance above the ordinary high water mark.
- 3. One (1) single boat house or one (1) permanent boat hoist larger than eight (8) feet in height or capable of hoisting more than one (1) boat at a time, and a seasonal boat hoist(s), may be permitted per **RL zoning** lot. The boat house or boat hoist:
 - a. May not be greater than 14 feet in height at the peak of its roof. Height is measured as the distance above the ordinary high water mark.
 - b. May not contain any plumbing facilities except for hot and cold running water.

Article 13 – General Provisions November 2010

- May not be used for either temporary or permanent sleeping or living quarters;
- d. May not be used for commercial purposes;
- e. May not be greater than 480 square feet in water surface area;
- f. May not be located closer than five (5) feet to the nearest side lot line, or extension of that line into the water and is not subject to waterfront yard setback requirements.
- g. Must not unreasonably impair the view and use of the lake by neighboring property owners;
- h. Must be constructed in compliance with a zoning compliance or building permit and state and federal permit requirements, including, but not limited to, those administered pursuant to the Inland Lakes and Streams Act, P.A. 346 of 1972, as amended.

E. Accessory Mechanical Units

- <u>Single Family Residential</u>. Freestanding heating, ventilation, standby generators, and air conditioning equipment may be located in any yard other than the required front yard of the principal structure, subject to the following requirements (window-mounted room air-conditioners are exempt from these requirements):
 - a. Placement of accessory mechanical equipment shall not be permitted within 10 feet of a window on an adjacent dwelling.
 - b. Accessory mechanical equipment shall be screened in a manner which will reduce the noise output of the unit and to shield the equipment from view of any road, adjacent residence, or the Lake. The maximum noise output from any such unit shall not exceed 55 decibels, measured at a distance of ten (10) feet from the unit.
- <u>Non-Single Family Residential</u>. Freestanding, roof or building mounted equipment (including air conditioning units, transformers, generators and similar) for all non-single family residential buildings and uses, and those on sites zoned non-single family residential districts shall be located in accordance with the following:
 - a. Front Yards. Equipment shall not be located in a front yard except the Planning Commission may permit equipment to be located in the front yard upon finding that such location will meet the spirit and intent of the zoning district in which the building is located provided such equipment is not located closer than ten (10) feet from an adjacent residential dwelling or district.
- Village of Lake Orion Zoning Ordinance

Page 13.7

- c. May not be used for either temporary or permanent sleeping or living quarters;
- d. May not be used for commercial purposes;
- e. May not be greater than 480 square feet in water surface area;
- f. May not be located closer than five (5) feet to the nearest side lot line, or extension of that line into the water and is not subject to waterfront yard setback requirements.
- g. Must not unreasonably impair the view and use of the lake by neighboring property owners;
- Must be constructed in compliance with a zoning compliance or building permit and state and federal permit requirements, including, but not limited to, those administered pursuant to the Inland Lakes and Streams Act, P.A. 346 of 1972, as amended.
- 4. May not be used for commercial purposes. (RL zoning lot)
- 5. All watercraft on a hoist or docked at a residential (RL zoning) lot for (5) consecutive days or more shall be currently registered to the owner or occupant of that lot.

Current Relevant Village Ordinances

Article 2.02 - Definitions

MARINA. A public or private facility which adjoins an inland lake or stream and offers service for docking, loading or other servicing of watercraft in exchange for remuneration.

Article 9-B MU District Section 9.02 – PERMITTED USES

Marinas, boat liveries and boat docks subject to the following requirements:

- a. Docking space shall be limited to a maximum of one (1) boat per 15 feet of lake frontage.
- b. The Commission may require landscaping, of immediate effect, including evergreens or similar plant material not less than eight (8) feet in height to mitigate potential negative visual impacts on adjacent properties.

Article 9-B MU District Section 9.02 – PERMITTED USES

- c. A minimum of one parking space shall be provided for each slip or mooring space. Additional parking space lengths to accommodate boat trailers and related equipment shall be provided for marinas with a boat launch.
- d. Repair of dismantled equipment including, but not limited to boats and motors, and storage of boats, boat parts, racks, lumber, and marine related equipment must be in a completely enclosed building when not in water.
- e. Hours of operation may be limited by the Planning Commission to avoid negative impacts of noise and glare, if the use is located adjacent to residentially zoned property.
- f. A permit to establish, maintain or operate a marina shall be secured from the Michigan Department of Environmental Quality, in conjunction with any approval.

Article 13 General Provisions Section 13.11 D – Boat Houses and Boat Hoists Boat Houses and Boat Hoists

- 1. Seasonal boat hoist(s) are permitted on an RL zoning lot. A building permit is not required for a seasonal boat hoist.
- One (1) permanent boat hoist no greater than eight (8) feet in height with a one-boat capacity is permitted on an RL zoning lot, provided all state and federal permits and a zoning compliance or building permit are obtained. The height of the hoist is measured as the distance above the ordinary high water mark.
- 3. One (1) single boat house or one (1) permanent boat hoist larger than eight (8) feet in height or capable of hoisting more than one (1) boat at a time, and a seasonal boat hoist(s), may be permitted per lot. The boat house or boat hoist:
 - May not be greater than 14 feet in height at the peak of its roof. Height is measured as the distance above the ordinary high water mark.

Article 13 General Provisions Section 13.11 D – Boat Houses and Boat Hoists **Boat Houses and Boat Hoists**

- b. May not contain any plumbing facilities except for hot and cold running water.
- May not be used for either temporary or permanent sleeping or living quarters;
- d. May not be used for commercial purposes;
- e. May not be greater than 480 square feet in water surface area;
- f. May not be located closer than five (5) feet to the nearest side lot line, or extension of that line into the water and is not subject to waterfront yard setback requirements.

Article 13 General Provisions Section 13.11 D – Boat Houses and Boat Hoists **Boat Houses and Boat Hoists**

- g. Must not unreasonably impair the view and use of the lake by neighboring property owners;
- h. Must be constructed in compliance with a zoning compliance or building permit and state and federal permit requirements, including, but not limited to, those administered pursuant to the Inland Lakes and Streams Act, P.A. 346 of 1972, as amended.

Article 13 General Provisions Section 13.17 B.1 – Parking and Storage of Watercraft

Section 13.17 - PARKING AND STORAGE OF MOBILE HOMES, TRAVEL TRAILERS, MOTOR HOMES, WATERCRAFT, VESSELS, TRUCKS AND OTHER ITEMS

Mobile homes, travel trailers, motor homes, boats, watercraft and other vessels, vessel trailers, trucks, and other similar items shall be subject to the following requirements:

B. 1. No more than one (1) travel trailer or one (1) motor home, and up to two (2) other recreational vehicles as defined in this Ordinance (excluding watercraft and vessel trailers) may be parked or stored outdoors on any lot that is zoned or used for residential purposes. Permitted outdoor parking or storage of all recreational vehicles shall be only in the rear yard, except in the RL District where they shall be permitted only in the street front yard. All watercraft, vessel trailers and recreational vehicles stored on a residential lot shall be currently registered to the owner or occupant of that lot.

Article 13 General Provisions Section 13.11 D – Boat Houses and Boat Hoists **Boat Houses and Boat Hoists**

- g. Must not unreasonably impair the view and use of the lake by neighboring property owners;
- h. Must be constructed in compliance with a zoning compliance or building permit and state and federal permit requirements, including, but not limited to, those administered pursuant to the Inland Lakes and Streams Act, P.A. 346 of 1972, as amended.

Additional Information

LOLA Survey Monkey – April 2023

Propose Questions – Survey Monkey Regarding Lake Overcrowding and Dock Rental

- Do you believe we have a boat/watercraft overcrowding issue on Lake Orion?
- Do you believe the DNR Launch Ramp is adequately controlled to the available 34 car/trailer parking spaces?
- There are lake residents who are renting dock space on a seasonal basis to non-residents increasing the overall number of boats on the lake. Are you aware this is illegal per Michigan law without a marina permit from the DNR?
- Do you believe this is being adequately enforced currently?
- Would you support LOLA (Lake Orion Lake Association) working with the DNR, Oakland County Sheriff, Orion Township, and the Orion Village to increase enforcement avenues to reduce this practice? (<u>increased</u> resources to investigate and enforce, added ordinances at the township and village level to prevent this practice)
- Would you be willing to pay for the additional enforcement through LOLA dues?
- Would you be willing to pay for the additional enforcement through a tax increase or special assessment?
- Please provide any suggestions you might have regarding lake overcrowding.



Oct 2022

Use of Private Property for Dock Rentals / Lake Overcrowding

Dock Rentals – Rental of dock space or allowing use of dock space. By individuals not an owner of the property

1. Is it legal?

- Individuals renting their dock space without a permit issued by the DNR are in violation of Michigan law
- Extended use of dock space by friends and relatives requires a DNR permit
- In short, any boat moored to a dock for extended period needs to be registered to the property owner

The Law – Michigan Law, subsection 30101(j) of Part 301:"Marina" means a facility that is owned or operated by a person, extends into or over an inland lake or stream and offers service to the public or members of the marina for docking, loading, or other servicing of recreational watercraft

If ticketed, it is a misdemeanor and punishable by ninety days in jail.

2. Can They be fined?

Individuals could be fined \$500.00 by the DNR for an illegal marina

3. Are there liable concerns for personal injury or property damage? Individuals renting or allowing use of their docks by others should check with their homeowner's insurance to determine individual liability exposure

Lake Overcrowding

- Overcrowding on Lake Orion is a critical concern for lake residents
- Overcrowding also is a concern for boating safety
- Individuals illegally renting dock space or those allowing use of their dock space by others are a major contributor to lake overcrowding
- Boating safety should be a concern for all lake residents

Reporting Violators

- File a formal compliant online at: <u>https://www2.dnr.state.mi.us/ORS/Survey/33</u>
- Call 517-284-6000

Lake Orion Lake Association (LOLA)

Presentation to the Lake Orion Village Council May 28, 2024

George Dandalides – LOLA President

Lake Orion Lake Association (LOLA)

- What is LOLA?
- 2023 LOLA Goals and Accomplishments
- 2024 LOLA Priorities
- Where do we need help?

What Is LOLA?

- Lake Association for Lake Orion made up of:
 - Riparian lake property owners
 - Residents of the Lake Orion surrounding area
 - Users of the lake (daily use and marina tenants)
- Led by a volunteer board of 11 members
- Voluntary membership
- \$20 annual membership dues

What Is LOLA?

• LOLA's Purpose:

The Purpose of this association shall be to provide effective **communication** between its members and governmental agencies relating to all activities that may affect its members. To **promote, advocate, and protect** the best interests of the area through preservation of the natural beauty of the environment. To **support** all propositions that assists the orderly and proper development of our community in general and our immediate area in particular.

What Is LOLA?

- LOLA Annual Activities and Community Support:
 - Maintenance and deployment of the 17 No-Wake buoys
 - Multiple seasonal water samplings w/submission to the DNR
 - Support of the Lake Orion Dragon on the Lake Event
 - Lighted Boat Parade
 - Donation to the Lake Orion Fireworks
 - The voice of the lake residents on matters that impact the lake (water quality, water safety)



2023 Goals and Accomplishments

2023 LOLA Goals & Objectives – June 26, 2023

- 1. Membership
 - 135 LOLA members in 2023
- 2. Communication
 - Began publishing a LOLA Newsletter
- 3. Lake Overcrowding (Safety)
 - Began discussion with both the Village and Township on "Keyholing"
 - Meeting w/local law enforcement to discuss boating safety initiatives

2024 LOLA Priorities

- Membership
 - Continue the membership drive from 2023
 - 115 members as of 5/20
- Communication
 - Continue the LOLA Newsletter
 - Redesign & relaunch of the LOLA Website <u>www.lolainfo.org</u>
 - Use of social media
- Water/Boater Safety
 - Continued discussion with local law enforcement on safety issues
 - LOLA sponsored Boaters Safety course in partnership with the Oakland County Sheriff Marine Division – Saturday June 29th at the Library

2024 LOLA Priorities

• Major concerns of our members:

- Lake overcrowding
 - Keyholing
 - Issuance of marina permits by the DNR
- Observance of No-Wake laws
 - Marked no-wake areas
 - 100 foot no-wake from any shoreline, dock, marked swim area, or other watercraft
- High energy wake damage to shoreline and lake bottom from wake boats operating in high energy wake mode
- Blight
 - Fallen trees in the water
 - Dilapidated docks & other structures left to deteriorate in the water

Where Do We Need Help?

- Membership
 - Are You a Member?
- Lake Overcrowding
 - DNR/EGLE stated position is that this falls under local authority, not the state.
- Enforcement of Ordinance 50
 - No-Wake rules
 - No waterskiing, wakeboarding, tubing, and high speed operation one hour after sunset to one hour before sunrise
 - Maximum lake speed limit of 40 mph
- High Energy Wake Mode of Wake Boats
 - Support of Michigan House Bill 5532 (HB-5532 supports the DNR recommendation of 500' no-wake and 15' minimum water depth in high energy wake mode)
- Blight
 - Are there blight ordinances in the Village and Township, and if so, who enforces them?

BOATER SAFETY CLASS

Date: Saturday, June 29, 2024 Time: 10am to 4pm Location: Orion Twp Library

PRESENTED BY: OAKLAND COUNTY SHERIFF & LAKE ORION LAKE ASSOCIATION



FREE ADMISSION



REGISTRATION

STUDENTS MUST PRE-REGISTER ONLINE https://michigan.storefront.kalkomey.com/em/events/7138

It is encouraged that each student register with their own unique email address. By using their own email address this will allow them to retrieve their Boating Safety Certificate in the DNR elicense system if they need a replacement copy.

WHO NEEDS BOATER SAFETY CERTIFICATE

Boat - Everyone born after June 30, 1996 PWC - Everyone born after December 31, 1978 Everyone can benefit from a boating class





Lake Orion Lake Association



www.lolainfo.org





Home About Membership

News & Events Testing Results

Photos & Video

Video Links Contact

Welcome to Lake Orion Lake Association

The Lake Orion Lake Association (LOLA) is comprised of hundreds of lake residents and visitors who care deeply about Lake Orion. Our members support LOLA activities and actions that preserve the natural amenities of the lake, as well as the public trust.

Lake Orion is a 505 acre lake nestled in the heart of Lake Orion, Michigan, within the picturesque landscapes of northern Oakland County. Lake Orion is a captivating waterbody retreat for residents and visitors alike. With its clear water and scenic shores, Lake Orion is a haven for water enthusiasts. The lake boasts a blend of charming homes and recreational facilities, making it a desirable destination for those seeking a peaceful lakeside lifestyle. Lake Orion stands as a timeless gem within Michigans natural beauty.

The Lake Orion Lake Association is dedicated to maintaining and improving the quality of Lake Orion for the health of its residents and its fish and wildlife through monitoring and education.



Quick Links
> What We Do
> Contact Us

» Learn More

Thank You!

Back-Up Slides

Regulation of the number of boats, docks, etc. DNR/EGLE position on who owns regulation

FW: EGLE Permit for site: 63-440 South Broadway-Lake Orion/WRP040325 v1.0 > 🖿 🕬		
→ Primeau, Robert (EGLE) < PRIMEAUR@michigan.gov> to me, Andrew ▼		
We do appreciate that comments that you submitted. Under Part 301, Inland Lakes and Streams, of the Natural Resources and Environmental Protection Act (PA 451 of 1994 as amended), when we review marina projects, we are reviewing whether the physical structures proposed are a potential harm to natural resources, public navigation, or riparian rights. The boats themselves, or number of boats on Lake Orion, or any given lake, the State does not regulate. If it is, that is usually handled locally by local government or a lake association.		

Charter Township of Orion

Ordinance No. 50

Watercraft Lake Orion (Speed of Vessels)

Adopted August 7, 1978

Ordinances of the Charter Township of Orion

Ord. 50 - 1

Ordinance No. 50

Watercraft - Lake Orion (Speed of Vessels)

AN ORDINANCE TO REGULATE THE SPEED OF VESSELS AND TO PROVIDE FOR THE SAFE USE OF THE WATERS IN ORION TOWNSHIP, OAKLAND COUNTY; ENACTED UNDER THE AUTHORITY OF ACT 303, PUBLIC ACTS OF 1967, AS AMENDED (M.S.A. 18.1287[17]), BEING IDENTICAL TO STATE ADMINISTRATIVE RULES FILED IN THE OFFICE OF THE SECRETARY OF STATE.

Section I

All words and phrases used in this Ordinance shall be construed and have the same meanings as those words and phrases defined in Act 303, PA 1967, as amended, M.S.A. 18.1287(8).

Section II

Regulation No. 63 Oakland County. R 281.763.9. Lake Orion; prohibited conduct.

Rule 9.

- (1) On the waters of Lake Orion and the canals and channels connected thereto, Sections 2, 3, 10, and 11, T4N, R10E, Village of Lake Orion and Orion Township, Oakland County, it is unlawful for the operator of a vessel to exceed a slow-no wake speed when within one hundred (100) feet of any shore, dock, raft, buoyed or occupied bathing area, or vessel moored or at anchor, except when water skiers are being picked up or dropped off if that operation is otherwise conducted with due regard to the safety of persons and property and in accordance with the laws of this state.
- (2) On the waters of Lake Orion and the canals and channels connected thereto, Sections 2, 3, 10, and 11, T4N, R10E, Village of Lake Orion and Orion Township, Oakland County, it is unlawful, during the period of one (1) hour after sunset to one (1) hour before sunrise, to:
 - (a) Operate a vessel at high speed.
 - (b) Have in tow, or otherwise assist in the propulsion of, a person on water skis, a water sled, kite, surfboard, or other similar contrivance.
- (3) On the waters of Lake Orion and canals and channels connected thereto, Sections 2, 3, 10, and 11, T4N, R10E, Village of Lake Orion and Orion Township, Oakland County, it is unlawful at any time to operate a vessel at a speed in excess of 40 miles per hour (64 kilometers per hour).

Section III

All other ordinances or parts of ordinances in conflict herewith are hereby repealed.

Section IV

Violations of this Ordinance are a misdemeanor and may be punished by a fine not to exceed One Hundred Dollars (\$100) together with costs of prosecution or imprisonment in the County Jail or such other place of detention as the court may prescribe, for a period not to exceed ninety (90) days, or said fine, costs of prosecution, and imprisonment, at the discretion of the court.

Section V

This Ordinance and the various parts, sections, subsections, provisions, sentences and clauses are severable. If any part of this Ordinance is found to be unconstitutional or invalid, it is declared the remainder of this Ordinance shall not be affected hereby.

Section VI - Effective Date

This Ordinance shall become effective upon publication, as provided by law.

October 28, 2024

Village of Lake Orion Mr. Darwin McClary Mr. Mario Ortega Mr. Gage Belko

Dear Gentleman;

Boat overcrowding is an area of concern for many residents of the lake. Marinas approved in recent years have resulted in an influx of boats on the lake. The three current and approved marinas add an additional 153 boats. Additionally, the boat launch provides for another 29 boats on the lake.

We recognize that the marinas and boat launch that are already permitted will remain on the lake, but we ask your help in ensuring that more marinas are not approved. To this end, we ask that the ordinance which allows the permitting of additional marinas be rescinded. This would place a cap on the number of a boats being allowed to dock on the lake.

Please forward this to the Planning Commission for their review. We plan to speak on this topic during the Call to the Public at their meeting scheduled for November 4, 2024.

Thank you for your time and patience in helping us understand the process for moving forward on the "No More Marinas" for Lake Orion. We look forward to working with you to protect our lake and community by striking this ordinance. We would like to move forward quickly before the DNR issues more permits for marinas on Lake Orion.

Amy Michajlszyn 248-770-5853

Michelle Dumeah 248-464-8516

LOLA Directors