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Catawba, Iredell, Lincoln, and Mecklenburg Board
Of County Commissioners and County Managers

Subject: Activities Report for 4th Quarter 2020-2021

Dear Chairpersons & County Managers,

This report will summarize the Lake Norman Marine Commission (LNMC) Activities for the 4th Quarter of the fiscal year ending on June 30, 2021

BOATING SAFETY

A. Boater Safety Law (State)

Current state law requires boater education for all operators of boats in North Carolina born after Jan 1, 1988 that are residents of NC. We continue to support all boater education classes by posting a comprehensive list of all education opportunities available throughout the year on our website at lnmc.org. Boating knowledge for boat rentals continues to be a concern and we are encouraging boat rental companies to conduct some form of training prior to renting boats on Lake Norman. Discussions with law enforcement has indicated that many of the observed violations are rental boats. The Marine Commission is working with rental boat dealers to provide them with additional educational material for renters. See the description of our new education efforts under boater education.

B. Boater Education

The Boater Education committee includes individuals involved with wake surfing activities, lake shore residents, law enforcement and boat dealerships. This group has developed an education program around the theme "Love Where You Lake". This is an effort to get the word out to everyone about the laws on Lake Norman. Currently cards are being distributed to all business around the lake that has a QR code that takes you to a special website that gives a summary of all the laws on Lake Norman and other useful information for boaters. This will be followed by a revised pamphlet that will contain this same information and more detailed information for boaters. We are also working with news outlets to help get the word out about our new "Love Where You Lake" program.

We are actively involved with other organizations to encourage participation in a Boater Safety Class and participate in meetings with law enforcement to consider ways to educate the public about no wake issues especially with the wake surfing boats. The LNMC provided pamphlets outlining all the requirements for boating on the Lake to local law enforcement, Coast Guard Auxiliary and America's Boating Club to provide to boaters during their training classes. This pamphlet which includes a summary of boating regulations is available on our website at lnmc.org. The site usage statistics show we have an increasing number of people accessing our website to view boating regulations.

In 2019, we revised our Lake Norman Search & Rescue map, and we provide this map free to all law enforcement, emergency services and support agencies that operate on the lake. The rescue side of the map shows a grid system that gives law enforcement and emergency services a simple grid location that can be easily relayed to responding organization. The other side of the map provides locations for lake services and all boater navigation aids are marked on the map along with their GPS coordinates for local boaters to use in chart plotters. We make this map available to all law enforcement and first responders on the lake.

C. No-Wake Issues

The No Wake Buoy Application currently requires an applicant to engage with law enforcement to address violation of current no wake requirements. As the popularity of wake surfing continues to grow, more complaints are being received concerning the larger wakes generated by boats specifically designed for wake surfing. The Buoy Committee involving local interested parties, law enforcement, Coast Guard Auxiliary and Power Squadron has met to help determine what we could do to address concerns over the shore erosion and dock damage being accelerated by wake surfing activities. Input received indicated a lack of knowledge of the no wake zone requirements on Lake Norman and the Education Committee is developing an education program discussed earlier.

This Buoy Committee has drafted some changes to our No Wake Buoy application process and Buoy Ordinance that will streamline the process and allow for an independent assessment of the need for a no wake buoy. Once this process is approved, we will begin accepting applications for No Wake Buoys. We also are developing guidelines for the removal of unapproved buoys.

D. Navigational Aids

The LNMC currently maintains 181 navigational aids on Lake Norman including Channel Markers, Shoal Markers and No Wake Bridge Buoys. We have

upgraded 18 Markers that had faded signs for better visibility. A list of all markers requiring repair is currently located on our website under “ATON Report to Boaters”. We have experienced an increased number of navigational aids that have been struck by boaters and knocked down. This has increased our costs for maintaining lake markers and will likely continue in future years.

We have partnered with America’s Boating Club of Lake Norman (formerly known as the Lake Norman Power & Sail Squadron) to conduct ongoing surveys of all lake markers to determine any needed repairs. This is an invaluable service provided by the Boating Club and will help maintain our lake marker system which provides safety information to all boaters on Lake Norman.

For several years we have partnered with the NC Wildlife Federation to identify locations where Osprey nests have been built on ATON’s. Nesting poles were installed adjacent to those ATON’s to allow Ospreys to build a nest and not damage our lake markers. Of the 18 poles installed, most of them are occupied with nesting Osprey’s this year.

2. ENVIRONMENTAL & PUBLIC RECREATION

A. Aquatic Growth Management

A survey in fall of 2020, completed by NC State, found only a trace of hydrilla. The 2018 outbreak of hydrilla growth primarily in Ramsey Creek has been eliminated by the stocking of 22,500 sterile grass carp over two years, spring of 2018 & 2019.

We continue to discuss with DEQ and NC Wildlife a program to establish a routine maintenance stocking number to be placed in the lake each spring to eliminate the possibility of reoccurrence. In May of 2021, 750 grass carp were stocked to continue to replenish the carp population that should control any regrowth from tubers (roots) that are active for 8-10 years following the initial growth. Our current plans are to stock at this level for the next 3-4 years.

We have entered into an agreement with DEQ and NC Wildlife to conduct a mortality study over the next 4 years to determine the survival rate of the grass carp once the visible growth of hydrilla is eliminated. In April of 2021, 50 grass carp that were tagged with acoustic and radio transmitters were released at 5 different locations around Lake Norman. DEQ and NC Wildlife have installed underwater acoustic receivers on 32 of our lake markers which will track the movements and survivability of these tagged fish. We will release tagged fish each of the next 3 years and use the data to determine the long-term survivability of the grass carp. This study is a jointly funded by DEQ, NC Wildlife, Marine Commission, Duke Energy and Charlotte Water.

This summer has seen a significant increase in the reports of a naturally occurring algae growth, Chara. This alga grows during the warm summer

months but will disappear in the fall as the water temperature decreases. Chara can be confused with Hydrilla growth since it looks similar underwater. We are

partnered with Duke Energy Aquatic Weed group to investigate all the reports of growth in the lake and so far, all the investigations have found that Chara is what people are reporting. No additional growth of Hydrilla has been found.

Currently we are also monitoring a small amount of Lyngbya, a blue-green alga that can form dense mats on the bottom of waterbodies. It's currently only in one small cove in the Ramsey Creek area but is of concern because it's very difficult to control. Current studies are underway at NC State to determine effective control for this growth. Duke Energy is closely monitoring this area to determine any spread of this growth.

- B. **Recreation Boating Traffic** – We continue to see an increase in lake traffic and many local boat dealers have reported a record number of boat sales in 2020 and 2021. Apparently, due to other travel restrictions, recreation on the lake has been the choice for many in our area. This has caused some concern with increased boating traffic and having many first-time boaters on the lake. We continue to work with all lake enforcement officers from the 4 surrounding counties, Cornelius Police and NC Wildlife to identify possible ways to enhance boater safety and knowledge of boating safety laws.

3. ORDINANCES

- A. **Charter Boat Ordinance:** We currently have 6 charter boats permitted to operate on the lake. Charter boats are required to submit operational plans, complete a safety inspection and verification of insurance to renew their permits each spring. The safety inspection this year resulted in the discovery of a significant safety issue for one of the charter boats and they were required to correct the issue before resuming charter operations.
- B. **No Wake Buoy Ordinance:** The Commissioners have suspended accepting new applications for No Wake Buoys. Based on input from the public and lake shore residents, changes to the current Buoy Ordinance and No Wake Buoy application are being considered. Revisions will be submitted for approval in the next few months.
- C. **Rafting Ordinance:** Events on the lake that involve larger number of boats continue to apply for rafting permits as required. This has been effective in controlling the larger rafting events that had caused problems in the past. Law enforcement participates in the approval of these permits. The popular gathering spot known as the "Sandbar" has been relocated adjacent to a small island away from residents and has eliminated the problems seen in the past.

4. ADMINISTRATIVE

The Marine Commission website at Inmc.org has been upgraded to provide more functionality for boaters. Our goal is to provide links to any information that would be useful to boaters operating in Lake Norman as well as residents and owners. Links to local organizations providing boater education and lake information is provided.

The website also includes minutes from the past Marine Commission meetings and the agenda for the next scheduled public meeting. Since the beginning of the pandemic, our public meetings have been virtual using zoom and we have had good participation from the public. Recordings of the virtual meetings are also available on the website. We returned to in person meetings in June and are hopeful we can continue to meet in person at the Charles Mack Citizens Center in Mooresville.

The year end financial report shows that the Marine Commission had adequate funds for the activities supported. However, increased funding required for ATON maintenance, legal support and boater education efforts resulted in a requested increase in county support from \$31,000 per year per county to \$35,000 per year. This increase was approved and will provide the funds necessary to continue our programs.

The audit of the 2020-2021 is currently in process. We contracted with a new state approved auditor for this year due to our previous auditor declining to continue performing state government audits.

Please contact me if you have any questions about any activities of the Marine Commission.

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