

Grass Update 10/11/22

The board has been working diligently toward the Grass situation in the lake.

The Aquatic Plant Management Plan, code name "Operation Carpe Diem Patientia" is moving forward with recommendations from Aquatic Solution's Mark McElroy. Mark was with the Department of Wildlife and Fisheries for 25 years and presently runs a company that manages over 350 private lakes and ponds. This is an ongoing management process that will require numerous data recovery expeditions and well as continued consultations with multiple biologists.

We consulted with 5 different biologist and three carp producers. I spoke personally with them.

They all had a few things in common.

1. You cannot remove the carp once they are put in.
2. It takes time for the carp to do their job. Sometimes two to three years, as they grow and consume up to three times their body weight a day. PATIENCE
3. Placing 1500 carp in the lake will remove ALL the vegetation of the lake. It's exactly what we did last time we had a grass problem.

It is akin to Nuking the lake. That's the magic number if you want a "bathtub" one told me. Two of them explained that they were told this a "Jet Ski" lake, used only for recreational boating. That is why the numbers were 7 fish per acre. But this is a multiple use lake with multiple user groups.

The grass acreage was initially estimated at around 200 acres, but updated number appears to be lower with subsequent sonar mapping.

The two Biologist that were featured on the emails and recommended 1300 to 1500 fish were of the understanding this was a recreational boating lake only. That's how they arrived at those numbers. I spoke with both of them and I asked McElroy to reach out to them. In discussion with them they said definitely that number was to wipe out all grass. They both agreed that the management is difficult, but start with a smaller number like McElroy recommended.

We will be placing another 425 sterile carp into the lake within the next week as per the guidance of Aquatic solutions with the blessings of the two biologists.

The management plan includes options to mechanically remove the grass as well as continued sonar mapping and consults with biologists to determine the status of the carp, the status of the grass, and the stocking of additional carp if warranted.

Remember this is an ongoing process that will be monitored closely.

I'd like to personally thank the Board for finding the money to fund the extra carp. Special thanks to Maria, our treasurer for this. Budgets are tight toward the end of the year. I don't know what we would do without her on the board.

And I'd especially like to thank Kirk for mapping out the grass and the depths of the lake. His engineering expertise is giving us an extra advantage in handling this grass invasion, without destroying the ecology of the lake.

Attached is the report from Aquatic Solutions and Mark McElroy

Blessings to all,

Dimy(The Lake Guy)

Dimy, thank you for the opportunity to weigh in on the aquatic weed issue now facing the Lake Ramsey residents. Kirks mapping work and our boating observations on October 3<sup>rd</sup> were enlightening and conclusive. The lake now has Southern naiad (native) established on at minimum 250 acres and sonar scans revealed growth at water depths up to 8 feet. Southern naiad has more "hair" like leaf structure than hydrilla which is the species your group dealt with back in 2008. The plant stems can easily break off and accumulate along docks from wind action and appear as floating mats. The plant stems found in the mats are no longer growing plants and will eventually fall out.

Controlling naiad in Lake Ramsey is an economic challenge no matter which method is considered. Due to current circumstances with your lake, the only reasonable method is to utilize triploid grass carp. The stocking rate is, as I appreciate it something that is being hotly debated by some residents. Several things should be considered when utilizing any method to deal with submersed aquatic species and carp utilization is no different.

Lake Ramsey serves different user groups including fishermen and recreational boaters. There is no question that the aesthetic appearance of the lake is central to residential homeowner value. A case can be made that living on the water is relaxing and therefore a health benefit.

My background includes serving as a freshwater fish biologist with the LDWF for 25 years and presently I run a company that manages private waterbodies including managing aquatic weeds and fisheries. With our long summers and expansive aquatic waters in S. LA we are often faced with aquatic weed issues and how best to manage their establishment and coverage. As a manager, it is important to inquire with the owner(s), what is the intended purpose of their water body when developing a strategy. Is for aesthetics, or fisheries or both. For lake Ramsey, it's both.

From a fisheries perspective, naiad is a game changer for increasing surface area for micro and macro invertebrates' life history. These small creatures represent the middle layer of the food chain and are essential for young of the year fish survival. Naiad is photosynthetic thereby imparting dissolved oxygen into the water column and increasing water quality. Naiad also serves as cover for young of the year fish and hence very important to their survival.

However, like any species that become over abundant this plant can become a nuisance. The fishermen user group would be best served to reduce the coverage while still allowing some percentage of the plant to coexist in the aquatic environment. That is a tricky proposition when developing a management strategy. Since we all agree that our only management tool available in this situation is to use triploid grass carp, the question becomes how many to stock to achieve our goals for the fishermen, boaters and aesthetic group. Bottom line, all user groups should recognize the benefits of some grass in the lake.



Current electrofishing data for Lake Ramsey revealed a healthy assemblage of largemouth bass with some individuals approaching trophy status (25 inches total length or greater). Relative weight data showed that 11% percent of all bass were considered plump and 43% of all bass were better than average weights for their lengths. Clearly, this indicates that food availability is pretty good and we are seeing fish move through the size groupings to bigger and fatter fish. Submersed grass supporting the mid layer of the food chain and also providing cover for young of the year fish has a lot to do with these positive developments. Recognition that Lake Ramsey offers supports a trophy bass fishery can potentially increase homeowner value and should not be trivialized. Right now, the fishery is close.

Whenever grass carp use is going to be a part of the strategy to control submersed vegetation the most important consideration is the stocking rate. Triploid grass carp were utilized previously on Lake Ramsey to deal hydrilla, another submersed aquatic species back around 2008. It is generally considered, at least by the fishermen that the carp eradicated the hydrilla and the bass fishery plummeted. That is a reasonable conclusion on their part. This user group, rightly so, is very wary to go down this road again and to wait years for the fishery to recover. Some fishermen are elderly and this would be especially harsh for them. The poster child on a public water body is when the fisheries manager in North Louisiana over stocked triploid grass carp in Caney Lake, a "trophy" lake and the bass fishery plummeted. The Department eventually withdrew the "trophy" classification from Caney. It was clearly a catastrophe, but a learning lesson as well. Lake Ramsey fishermen learned this lesson all too well.

As a fisheries biologist inside the department and now outside managing over 350 private lakes and ponds statewide I have had my share of experience of using carp to manage submersed aquatic weeds. My general rule of thumb, under stock what you think the real number should be because you know you can always add more. Carp are a strategy tool and no one is good enough to calculate the exact number of carp for a lake of this size. We can calculate the vegetative acres, determine the species needing to be controlled but, still there are so many other variables that aren't considered that the stocking rate is at best, a good guess. However, one thing we've all learned is that when a fishery is considered like in this instance, too many carp can have disastrous results. There is no reasonable way to remove carp once they've been stocked. The other thing to consider when making a stocking recommendation is that carp will not provide immediate results. This is a difficult thing for some to understand. The literature talks about carp potentially consuming 3 times their body weight a day. If that's true, then obviously the one-third pound carp stocked will not materially impact the vegetation until they've had time to grow. Simply stated, a 5lb carp will consume substantially more weed biomass than a one pound fish. So, the residents will need to have patience. The grass didn't appear and expand its coverage over night and by the same token, the carp will not reduce the coverage over night.

Fine tuning the control of naissid in this lake means, providing weed control that pacifies all user groups. For the fishermen, they are passionate that some grass remain because of the benefits to the fishery. Years have gone by since the hydrilla situation occurred and fishermen have been praying for

grass of some kind to return. But, by definition this weed has been an over achiever and now needs some control. Luckily, in this particular situation we have Kirks ability to map the lake. Right now he is finishing mapping the lake bottom and this will serve as a base line going forward. The treatment will be to stock out a reasonable number of fish and follow up with subsequent mapping to ascertain progress in controlling establishment and control. After the 2022 stocking we can assess the size of the fish over time and their ability to control the plants. Any consideration for future stockings should be made after next year's growing season. Again, we are allowing the fish to grow and become more capable to the task. My original stocking recommendation is 500 carp by the end of this year, and be patient.

I hope that these comments will assist you in your deliberations with the other user groups. Let me know if I can assist you further.

Mark McElroy

Aquatic Solutions, LLC