

Lake Sante Fe

I spent Tuesday evening Sept 13th at your lake. We spent several hours talking about the history of the lake, the current management plans of the lake, going over many questions about the lake, as well as hands on analyzing the vegetation and fish population. Here are some of our observations.

- Great Overall Water Quality
- Randomly Place Lake Bottom Aeration System making Excessive Noise
- Mixed bag of good native vegetation- Naiad, Coontail, American Pondweed.
- Excessive Filamentous Algae around beach area and most of the shoreline.
- Excessive Largemouth Bass between 12-15" with low relative weights 75-80% of what they should weigh.
- Low Population of Bluegills, but nice sized
- Low Population of Crappies, but nice sized
- Low on Shoreline Habitat between 3-10' deep

Based on our conversations and observations here are some very practical and easy to follow recommendations for you to consider for managing your lake.

- Move the aeration diffusers in a line closer to the Beach Buoys to get good circulation in the beach area. This will also reduce the pressure on the compressor allowing it to work better and last longer.
- Replace the noisy compressor inside the cabinet for next spring. Just run the system from March thru October. New compressors are about \$600 depending on exactly which unit you have. You can contact Vertex direct or you can call Rachel at my office for a quote if you have the compressor make and model number.
- For Routine Lake Maintenance Apply 25 lbs of HB Muck Reducing Pellets in the beach area once per month from April thru October. And also 25 lbs of HB Pellets in the cove area per month as well. Simply broadcast these pellets evenly across those areas from the shoreline. This product is a natural blend of beneficial bacteria, enzymes, trace minerals, elements, and vitamins in a barley straw extract designed to digest and eliminate organic materials. Tree leaves, decaying aquatic vegetation, grass clippings, fish and waterfowl waste, fertilizers, and other organics build up at the bottom of the lake especially along the shorelines in the coves and beaches. Targeting those areas specifically helps the entire lake. This particular product is my number one product for rehabbing old lakes and maintaining young ones from the beginning. It can be purchased in bulk for \$7.75 per lb. You guys will need 350 lbs per year for the common areas.
- Treat your filamentous algae on your beach area and around the lake with Cutrine Granules as needed starting 2 weeks before Memorial Day. Use 1 lb of cutrine granules per 500 square feet of algae. Just broadcast directly onto the algae on a sunny day before noon for best results. Cutrine can be purchased in bulk for \$2.70 per lb. Plan for 3 applications of this for the season. One in Mid-May, Mid-June, and Mid-July.
- I recommend treating your rooted vegetation with Aquathol Granules twice per year to greatly reduce their growth. Typically we recommend 2 weeks before Memorial Day and then again 2

weeks before July 4th. Simply broadcast 1 lb per 700-1000 square feet of mixed rooted vegetation. The goal isn't to eliminate all the rooted vegetation in the lake, but rather to identify, and focus on your main recreational areas for these two applications. Aquathol Granules can be bought in bulk for \$25 per lb. It is a very effective product and simple to use.

- One idea would be to have the association pay for the vegetation treatments on the common areas, but then let individual homeowners decide if they want to treat their shoreline areas on those two treatment days each year.... For example a 60' section of shoreline with mixed vegetation going out 40 feet would be 2400 square feet of vegetation and would take approx 3-4 lbs of aquathol granules.
- Also if any individual homeowners wanted to purchase 10 lbs of bacteria pellets for their shorelines I would encourage that as well. Just apply about 1.5 lbs per month along their shoreline in the shallow water would be very beneficial to their area as well.
- Also plan on stocking 12 grass carp every year to help continue with natural reduction of vegetation. We sell grass carp 10-14" long for \$10.50 each plus \$45 delivery.
- Try to remove 1000 bass this year between 10-15".
- Annually try to remove 1000 bass every year between 10-15". Here is a relative weight chart that shows you how much a bass should weigh for its length:
<http://thediaryofalakenerd.blogspot.com/2009/05/largemouth-bass-relative-weight-chart.html>
This is a great guideline to follow and you should be actively harvesting your bass until they consistently weight in at 100% relative weight.
- I would try to encourage as much catch and release for your crappie and bluegill for the next year as possible. You currently don't have a surplus of them to harvest. With managing a fishery you will pretty much always have a surplus of fish to eat each year that needs to be harvested. The key is to identify what the surplus is and to then harvest it each year. Protect what needs protected and harvest the surplus... I would encourage reducing the daily limit on Bluegill to 5-10 per day until they present a surplus.
- I would suggest annually stocking 10 walleye 5-8" per acre, 20 crappie 5-8" per acre, 20 bluegill 4-6" per acre and then every 3 years stocking 10 largemouth bass 8-10" per acre and 1 tiger muskie 10-14" per acre. Doing this helps diversify the gene pool in the lake each year. The harvesting recommendations above are the most important, but then harvesting combined with introducing new bloodlines to the lake you will help you create a world class fishery. I think your lake will benefit tremendously by introducing walleyes and tiger muskies as bonus fish.
 - FYI, current fish pricing is as follows:
 - Walleye 5-8" \$1.95 each
 - Crappie 5-8" \$1.95 each
 - Bluegill 4-6" \$1.25 each
 - Largemouth Bass 8-10" \$5.50 each
 - Tiger Muskie 10-14" \$21 each
 - Grass Carp 10-14" \$10.50 each
- I know this may sound contradictory by removing lots of fish and then putting in the same kind of fish, but all fish are not created equal. Genetics and Population Dynamics are just as

important with fish as they are with raising hogs, cattle, sheep, horses, dogs, etc. The better the bloodlines the better the fishery you will have. A lake is a closed system and the only way new blood gets in is by bringing it in.

- I would suggest adding 12-15 brush piles per year to your lake in 3-10' of water. Creating this habitat helps your fish population tremendously. Use big concrete blocks or 5 gallon buckets of concrete to sink these brush piles to the bottom. Use brushy bushes and small trees. Cedar, hedge, autumn olive, and Christmas trees are some of my favorites.
- Continue adding your blue dye program each year. We can get you Aquashade Lake Dye for \$41 per gallon.

Overall you guys have an incredible lake that is actually very healthy and full of life. The goal would be to create and fine tune a routine maintenance program (as natural as possible) that allows you to better enjoy the main features of the lake- swimming, fishing, and overall aesthetics. You truly can have it all in terms of a world class fishery, recreational swimming, and killer sunset views. When your lake (the focal point of the entire subdivision) is well managed, the desirability of all your properties goes up tremendously.

We currently help clients manage literally thousands of different bodies of water of all shapes and sizes from all over the US. We perform about 150 full lake audits annually across the Midwest and take in an additional 300-400 clients annually online with our free fish and pond analysis form: http://www.hbpondmanagement.com/fishandpond_contact.html . Also we would invite you guys to come out to visit our property the Giant Goose Ranch in Canton, IL. We have 52 lakes and ponds on that property that we are intensively managing that range in size from ¼ acre up to 121 acres. www.giantgooseranch.com for more info.

Feel free to send over any questions, ideas, reports, or concerns anytime to nate@hblakemanagement.com.