

BEAR LAKE LAKE BOARD

REGULAR MEETING

Thursday September 13, 2018

6:00 p.m.

North Muskegon City Hall

MINUTES

CALL TO ORDER: The meeting was called to order by Kim Arter at 6:00 pm.

PLEDGE OF ALLEGIANCE TO THE FLAG:

ROLL CALL:

Present: Kim Arter, Darrell VanFossan and John Snider

Absent/Excused: Brenda Moore and Steve Johnson both w/notice

Also: Representative of RLS Dr, Jennifer Jermalowitz-Jones, Recording Secretary Veronica West and approximately twenty (20) area citizens.

MINUTES: John Snider moved to accept the minutes of the August 9, 2018 regular meeting. Darrell VanFossan supported the motion. The motion carried by voice vote. The minutes will be placed on file.

REPORTS:

- **Restorative Lake Sciences:** Dr. Jones distributed an algal updated report for the Fenner's Ditch area of the lake, noting two toxic species of algae were found to be present creating a dense algal mat on the water's surface. Contact with these species should be avoided when a mat or scum is present. Dr. Jones also distributed a map and a results chart regarding the 30 core samples (4 ft deep cores – analyzed the surface, middle and bottom of each core) that were taken. She reported that there has been petroleum detected in a number of these samples, 11 with high concentrations, mostly at the 4 foot depth. She noted she was very shocked at the results and the next step is to set up meetings with the Michigan Dept. of Environmental Quality (MDEQ) and possibly even the Environmental Protection Agency (EPA) before moving forward as this beyond the original scope of work. She stated that there are petroleum digesting bacteria that can be applied to break down the petroleum in the lake bottom sediment. She stated it will be necessary to heal the bottom of the lake to heal the surface water. She commented that this is a contributing factor as to why the bottom of the lake is so sterile; she also noted that the low oxygen and low diversity of plant & animal life is contributing to the severe algae in the lake as well as massive storms and the run off from them contributing to the algal blooms. She did state her professional opinion is that it is irresponsible to treat the algae at this time as the biology of the algae would cause it to react to the treatment with an even worse outbreak next time. She did state the algae can be skimmed off next year and together with the goal of increasing native aquatic plants to restore the health of the lake will greatly reduce future algal blooms.

Dr. Jones introduced [Linda Hensel, CPG \(Certified Petroleum Geologist\), who owns GoTo Consulting, Inc. based in Custer, Michigan](#) to talk more about the petroleum findings. Ms. Hensel stated she feels the source of the petroleum are old oil wells from many decades ago, the 1920's and 30's and while probably quite degraded, it is still volatile enough to kill plant life. Ms. Hensel talked about the way oil wells were drilled and capped during that time and noted there may be more than 1 source as these old oil fields had many, many miles of piping, there are many possibilities including heavy metal contaminants. There will be a need for more testing. Dr. Jones stated any work they may do to improve water quality would be compromised by these petroleum related bottom issues, if they are not addressed. She added that the MDEQ needs to be met with to get more help and to get funding – this type of finding must be reported to the State. She additionally commented on the need for oxygen in this lake and noted that aeration could be applied to the upper part of the water column avoiding the bottom. She quickly touched on a variety of options that may be available and noted she is already looking for literature and finding most of it

regarding petroleum is marine, not freshwater. Dr. Jones noted again how important it is to get a meeting with the MDEQ, a couple of board members and herself. In the meantime, monitoring of the water quality and treatment of invasives can continue. She feels this is a “fixable” problem, and she expects support from the State/MDEQ and will be working on getting a plan and costs of said plan together. She added that due to Bear Lake being on the Area of Concern (AOC) list, there may be the possibility for grant assistance to address the oil/petroleum problems. Kim Arter explained the AOC, and explained that AOC funding is what paid for the project to remediate the celery flats area of the lake as well as cap the oil seep in Fenner’s Ditch this summer. She further added that we don’t want out of the AOC listing until the problems are funding is often available when in an AOC. Dr. Jones did note there are currently not protocols for addressing this type of situation and help from the MDEQ and/or EPA is necessary.

Darrell VanFossan asked if dredging could be a solution. Dr. Jones stated and emphatic “NO” to dredging, talking about a toxic top of algae and a toxic bottom with petroleum and emphasized how much oxygen is needed in this lake. She also cautioned that this lake was not damaged in 5 years and it cannot be fixed in 5 years; it is going to take time to do it right.

Darrell VanFossan also asked about algae treatments. Dr. Jones recommended waiting on treatment until spring when PLM can skim the filamentous algae before treating the invasive aquatic plant species. She also noted that aeration moves water and the algae won’t form mats with the movement. There was additional discussion of algae treatment with Darrell VanFossan asking if the Lake Board can give RLS the authority to treat algae and invasives whenever found as long as it stays within the approved budget. Dr. Jones stated that is common practice among lake boards and this will be helpful so RLS can have PLM “on reserve” for the skimming equipment. She also again stressed to not go anywhere near the mats of algae or go in the water where they are present but to go out in the middle of the lake to go swimming and to not let pets drink from the lake when algae is present.

In addition, Darrell VanFossan asked if individual homeowners would be able to obtain MDEQ permits to spray their own lake frontage for weeds. Dr. Jones noted that this is possible, but does not encourage the practice as it can be counterproductive to the work being done by the lake board. She also noted in order for the MDEQ to approve these types of permits, the property owner must get the “ok” from adjacent property owners on both sides.

COMMUNICATION:

- **Treasurer’s Report/Check Register:** Chairperson Kim Arter distributed the report/register of expenses to date and noted it would be updated monthly and copies of all the bills/checks/receipts are on file.
- **Resident E-mails:** Kim Arter noted that she received several emails from concerned residents and she distributed them to the other board members.

PUBLIC COMMENT:

Ryan Leestma of 1599 Westwind Ct commented on the lakes being the best part of this area and commented he feels that WMSRDC (West Michigan Shoreline Regional Development Commission) has shown “enormous incompetence” in it’s handling of the project involving the Veteran’s Memorial Park at the Causeway. He did ask if private citizens can put in their own aerators to help Bear Lake. Dr. Jones stated an aerator around a dock would keep things from stagnating, but the lake volume is way too much for these to have any serious impact. She also noted that the cores tested were from the lake bottom and not the frontages and stated more information is needed. Ryan Leestma also asked who would do any grant writing. Dr. Jones noted she has grant writers on staff and this comes as part of their contract services.

Rod Morphew of 664 Massachusetts asked Dr. Jones to rate the toxicity of Bear Lake, with a 10 being a toxic dump and 0 being a pristine mountain lake. Dr. Jones stated 7/12. She added there is currently a bad mix happening, but ecosystems can be restored but it will take patience and dependence upon other regulatory agencies for oversight and funding.

Jim Panici of 1505 Glenwood Dr. asked if the \$600,000 budgeted for this 5 year project is going to be spent with no improvement. He asked what prevents this Board from assessing people \$50,000 for this problem since he was not in favor of this project and did not get a chance to vote on it.

Cindy Panici of 1505 Glenwood Dr. commented that the lake is not owned by the residents, but is a public resource and there has to be some other alternatives for paying for this project. She asked why no grants have been applied for yet. Kim Arter explained that this board can work for and apply for grants, but this is the first year any scientific evidence has been gathered. In prior years, homeowners that wished to have their frontage sprayed for weeds could do so, but no testing or study was done to see what was there, what wasn't and what needed treating.

Linda Hensel (petroleum geologist) commented there are funding mechanisms, but the state only has so much money and more information and help is needed from the MDEQ.

Paul Pek of 52 N Bear Lake Rd asked if the Board has looked at the information available from GVSU. Kim Arter responded that they only looked at nutrient loads. Dr. Jones also stated the information on nutrient loads is not relevant to this project with the petroleum found in the bottom sediment. Paul Pek also asked leaved being dumped into the lake has any effect and if there are any ordinances against this activity. Dr. Jones stated this activity does have an impact but it was noted there are currently no ordinances against this practice. Kim Arter stated this board is not entity to ask for this, but to go to the township and city planning commissions and ask them to look into ordinances. Darrell VanFossan noted this could be a public education item to teach the land owners the do's and don'ts with regard to keeping the lake healthy.

Dona Mouw of 1601 Westwind Ct stated the algae made the lake look like pea soup all over, not just in Fenner's Ditch and asked why warnings were not put out to the public like some of the warnings seen about ecoli and other hazards. Dr. Jones answered the state hasn't created any protocols for warnings regarding algae. She also asked about short term and long term solutions and asked if there could be any federal funds secured. Dr. Jones stated they must start at the State level with the MDEQ and then go up to the Federal level EPA.

Randy Wierengo of 124 N Bear Lake Rd noted he is hearing lots of talk about aeration but feels this could be a noise nuisance as the peace and quiet is what he enjoys most about the lake, and asked how much noise these devices create. He also stated he feels they can "piggyback" off the oil problem to pay for the aeration. He also asked what would happen if the aeration system gets installed and someone gets hurt on it. Dr. Jones commented she has 24 lakes that are doing whole lake aeration and the new ones create under 30 decibels of noise which is quieter than a home air conditioning unit. Dr. Jones also noted she has never had a situation where anyone got hurt by an aeration system. Darrell VanFossan asked if it could be arranged to go see a lake where an aeration system has been installed. Dr. Jones stated this could be arranged.

Roger Slorf of 650 Glenwood Ave asked if residents can help in any way. Dr. Jones stated it would be helpful if residents would be honest about the landscaping practices; noting nitrogen is a problem, even bigger than phosphorus. She added there are lots of tips in the study about what to do or not do with regard to fertilizing and other landscaping tips.

Doug Cowen of 438 Melody Lane commented on public education and passing an ordinance to ban all phosphorus fertilizers. Kim Arter replied that there is a need for public education and the Bear Lake Preservation Association will be putting on workshops in the near future.

Charlie Chapel of 570 Bear Lake Rd showed pictures of the algae present and the pea soup look to the water in front of his house recently. He asked if a superfund site should come into play. Kim Arter stated they will be contacting and meeting with the MDEQ and possibly the EPA to start.

Bruce Baker of 1014 Moulton Ave stated he heard that the oil seep in Fenner's Ditch couldn't be capped but was considered contained. Kim Arter replied that the top 500 ft was broken off the well and it could be as

much as 2000 feet deep or more and the project took out all the contaminated sediment and contained the seep in an area that will continue to be monitored forever. This was a \$700,000 project paid for by the MDEQ and the EPA.

OLD BUSINESS: NONE

NEW BUSINESS: NONE

ADJOURN: John Snider moved to adjourn the meeting. Darrell VanFossan supported the motion. The motion carried by voice vote and the meeting adjourned at 7:35 pm

Respectfully Submitted:
Veronica West
Recording Secretary

Approved by the Bear Lake Lake Board on _____.

Signed: _____.