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JANUARY 2011

President's Letter

December has been a good time of the year for Three Lakes Association (TLA) to develop strategic plans. We have established goals and a budget for 2011, and we are in the process of reviewing the results from the membership Opinion Survey. TLA's Appeal letter encouraging members to renew their membership in TLA was just mailed. This letter includes some of the Association's 2010 accomplishments.

Although many members renew their membership at the \$100 level, or more, TLA's annual minimum membership dues is still \$50 per year so that membership remains affordable for all. Donations beyond the minimum help support the association's programs, especially in the high priority areas of protecting water quality and enhancing the environmental education on behalf of future stewards of the watershed.

Our 2011 goals and specific projects are being influenced by your responses to our membership opinion survey. If you did not submit a response to the membership opinion survey, please do so now even though the deadline was December 1, 2010. If you misplaced your copy of the survey that was mailed with the October Newsletter, a copy can be downloaded from our Website: www.3lakes.com; 3rd item on the homepage.

This issue of TLA's Quarterly Newsletter contains several interesting articles including a summary of the membership survey results. Our board was pleased to receive this feedback about TLA's programs, especially those that you feel are most important and how TLA can improve its response to various program needs. Based on your responses, we are pursuing collaborative projects in 2011 to improve fishing, reduce sediment loading from tributaries, and address invasive species, especially a pioneering colony of Eurasian water milfoil in Torch Lake. This Newsletter also includes an article describing our plans to replace the missing Star Buoy signs at public access sites, and an article about DNRE's efforts to clean up an old gasoline leakage problem at Butch's Marina. Historical highlights from the association's first 30 years (1966 to 1996) are available on our Website. Our plans for 2011 include a celebration in July of the Association's 45th anniversary by issuing historical highlights from the past 15 years. We are also preparing an updated membership Directory that will include the names of members during 2009, 2010, 2011, and Life Members If you would prefer that your contactinformation not appear in this Directory, please let us know (231-533-4852).

If you haven't yet renewed your TLA membership, please do so today for 2011. A renewal form is included in the newsletter. My hope is that all TLA members are as proud of their involvement in TLA as I am. In this issue

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The Mission of the Three Lakes Association is to provide leadership to preserve, protect, and improve the environmental quality of the Elk River Chain of Lakes, especially Torch Lake, Clam Lake, and Lake Bellaire,

for all generations



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Education Outreach Selections

by Patricia Roush, TLA Education Committee Chairman

December's Three Lakes Association board meeting delivered early Christmas presents to the seventeen teachers in Bellaire, Central Lake, Kalkaska and Mancelona school districts who participated in the 2010 – 2011 TLA Education Outreach Program. Each teacher will receive all of or some of his/her requests. Board members enjoy this annual item on the agenda. Education chairperson, Patricia Roush, sent informal announcement emails to each teacher, receiving boisterous and happy responses. Formal letters and checks will be sent to each district superintendent in January. In addition to the Wish List Program, TLA's Education Outreach Program also includes funding of one Inland Seas Education Association schoolship experience for each of the four districts. About \$6,800 has been allocated for wish list items and \$3,200 has been allocated for the Inland Seas Schoolship program in 2011. At the end of the school year or sooner, each teacher and her students reports back to the board on how they used the wish list items, what they did aboard the schoolship and what they learned. Below are quotes from some of this year's requesting teachers:

Andy Henderson, Kalkaska Middle School, Requested water monitoring kits...

I saw these kits at the Michigan State Teacher's Association Conference that I was able to attend due to the generous donation from TLA.

Randall Atwood, Kalkaska, Rapid City Elementary, Requested water related materials...

We look forward to sharing with Three Lakes Association about our learning by: having children write about their learning, inviting parents to see/hear about their learning; taking pictures of their posters and dioramas; taking pictures of the GRNA field trip and, as an educator, writing an article for the TLA publication.

Judy Schieber, Bellaire Second grade, Requested an all grades assembly on MI wildlife...

If we can educate our youth, maybe we can spread the correct information re our native environs and species. If one child tells two friends, and they tell two friends, and they tell 2 friends, the correct message will be passed on to many, many people.

Tom Baeckeroot, Bellaire High School, Requested a closed eco-system chamber...

I truly appreciate the opportunity to submit an application. I am so glad that TLA is continuing this outreach to the schools! Please let me know if there is ever anything I can do to help.

Butch's Marina: Toxic Clean-up Site

by Norton Bretz

Anyone who has driven by Clam River recently would have noticed the large "construction" site near Butch's Tackle and Marina. There are highway signs warning away cars, a high cyclone fence surrounding a large excavation on the road to the marina, a multi-story screw drill in the pit, and many cement trucks and construction vehicles going in and out. What's this all about? In fact, TLA, TLPA, and FOCL were caught flat footed by all the activity. Here's the scoop.

About 1990 a water well near Butch's was found to be contaminated alerting DEQ to the existence of a leaking gas tank. At this time Butch pumped gas for cars near his front entrance as well as servicing boats on Clam River. And he had been using the same underground gas storage tanks since the Marina construction in 1965 without noticing any loss of gas volume. Unfortunately, techniques in use then would not have been able to detect small leaks, but over the years, these leaks had apparently contaminated a significant part of the subsurface near the pumps and had migrated to adjacent properties. Under DEQ's guidance Butch removed the offending tanks and excavated a large area around them. The tanks were tested and no leaks were found. Nevertheless, Butch removed over 4,000 cubic yards of earth down to the water table and sent it to a lined landfill - all at hisown expense. Then the DEQ tested the soil and installed a carbon filtration system that operated for two years. All this reduced the contamination to the level required by the EPA at the time.

Then about 2000 the EPA reduced its estimate for what was considered acceptable for drinking water contamination and

Prior to this the DNRE had drilled dozens of test wells around the site of the old tanks and on properties where contamination had been seen in groundwater. A steel retaining wall was installed at the perimeter of this contamination plume so that earth below the water table could be removed. Furthermore, a permanent concrete retaining wall was constructed extending from near the boat launch across the front of the marina almost to the access road. This is



Footprint near water table in excavation site showing gasoline residue

Butch's Tackle and Marina was,

for a time, teetering on the edge of this abyss, shored up

by pilings especially installed to

keep his shop intact. However,

over the next few months the

hole will be refilled and re-

Butch has not sold gasoline to

cars since 1990. The gas tanks

for boats are the most up-to-

date in the business with leak

monitors and vapor detectors.

The influx of contaminated

been carefully monitored and

will continue to be monitored

for many years to come. By

next spring Butch's expects

excavation procedures

during

the

has

Needless-to-say,

surfaced.

groundwater

what the multi-story screw drill was for. The concrete barrier was put down 32 feet below the surface and well below the water table and 40,000 cubic yards of contaminated soil removed in all, ten times the volume taken out in 1990. The purpose of this barrier wall is to prevent residual contaminants from migrating into Clam River.

Butch's site rose to the top of the list of sources of toxic contamination for Torch Lake and Clam River. At the time the State of Michigan had a special fund to assist in remediating sites like this. The scale and expense of the next step, now estimated at several million dollars, would overwhelmed have Butch's ability to do the job himself. But by the time Butch was able to prove he could not afford



Overview of excavation site with Butch's Tackle and Marina in center

it, the fund had run out of money. So, the problem festered until 2009 when the American and Reinvestment Act was passed and DEQ, now called the DNRE, could again make plans to remediate the site. Which brings us almost up-to-date.

The activity that you have seen recently started in October. Butch closed operations a month early and excavation began immediately.

to be open as usual and is hoping for a good year after several difficult ones for all the businesses in the area.

TLA applauds the persistence of Butch himself and the DNRE in staying on top of this problem. Although the contamination over the past twenty years has been a bad thing for the lake, no specific effects on the fish or benthic community have been

See Marina on Page 7 for continuation

TLA Supports Stronger Oversight of "Fracking"

by Norton Bretz

Hydraulic fracturing or "fracking" is a technique used by the oil and gas industry to improve production in their gas and oil wells and involves pumping a variety of fluids into the wells at high pressure. Some of these fluids are toxic, and under some circumstances, have leaked into groundwater polluting drinking water wells. At present the fracking practices for shallow wells (~500-2,000 ft.), like those in Antrim County, consist of pumping brine into these wells. This practice has been carried out for many years in Michigan with no apparent groundwater contamination; however, there is new interest in oil and gas deposits that are in deeper formations (~10,000 ft.). These require more aggressive fracking techniques that involve large volumes of fresh water and many toxic chemicals. Pennsylvania regulators have found groundwater contamination associated with these deep well fracking techniques.

The same geological formations that have attracted gas and oil companies to Pennsylvania are also present in Michigan. So, there has been some activity on the part of oil and gas companies in our area to secure leases to exploit these potential reserves. However as yet, there are no deep production wells in Antrim County. Drilling awaits the demonstration of successful wells in southern Michigan. The production of some of these wells has been rumored to be "disappointing", but there will undoubtedly be more exploration. At present there is minimal oversight on what geological formations can be fracked, what fluids types and volumes are allowed, or what testing is needed to demonstrate that public health will not be impacted.

This last November Tip-of-the-Mitt (TOTM) Watershed Council organized a sign-on letter to be sent to the Michigan Department of Natural Resources and Environment (M-DNRE) and the Michigan Office of Geological Survey urging them to strengthen their oversight of "fracking" regulations. TLA along with over thirty other local environmental organizations signed this letter. Furthermore, on Dec. 17, 2010 TOTM organized a Fracking Roundtable Discussion for citizens and organizations in Cheboygan, Emmet, Charlevoix, and Antrim Counties, along with the Traverse City and Grayling regions. Over fifty people were in attendance. Here is a synopsis of the letter and M-DNRE's response. The

Membership Opinion Survey

by Tina Fields

Preliminary results from our membership opinion survey yield a few very interesting similarities and differences, depending on whether one is a year-round or a part-year resident. Things that are 100% important to both groups are: water quality, being kept informed, and protecting our lakes against invasive species. Things that are 100% important to our year-round residents, but somewhat less so to our part-year residents are: educating the young people about water quality, continuing education for adults about water quality, and awareness of shoreline development (these were rated very important by 89.5%, 89.5%, and 97.4% of our part-year residents, respectively).

Some of the surprises include that in two of the areas important to 100% of our respondents, the part-year residents gave us a

undersigned organizations urged M-DNRE and the Office of Geological Survey to adopt the following changes in their procedures. Each recommendation was accompanied by a significant discussion of the issue and its relationship to current regulations and practices. More information about fracking and the original letter is found at [www.watershedcouncil.org/learn/hydraulic-fracturing/]

- Require the use of the water withdrawal assessment process for all deep oil and gas wells and remove water withdrawal exemptions for oil and gas wells.
- Require public disclosure of chemicals used during fracking procedures.
- Increase the performance bond and financial responsibility statement requirements for gas and oil drilling and plugging operations.
- * Require seismic monitoring to ensure fracking occurs only within the gas or oil reservoir.
- Require monitoring and reporting of fracking fluid flow-back volumes.
- Require companies to use Best Management Practices.
- Reassess Michigan rules and regulations after the US Environmental Protection Agency (EPA) releases its hydraulic fracturing study due to be released in 2010.

M-DNRE responded to this letter as follows: "The DNRE is encouraged by the careful thought that you and your fellow undersigned organizations have put into your recommendations" and gave detailed responses to each of the points that were raised. As a result of this letter and the Dec. 17 meeting TOTM has formed a Rapid Response Coalition. TLA along with many other groups have become members. In addition a meeting was held with M-DNRE in Lansing to discuss these issues Jan. 7. We will keep you informed about progress in this area.

higher rating than did the year-round residents: 1) water quality monitoring 68.5% of the year-round residents and 73% of the part-year residents think we are meeting the need; and 2) keeping everybody informed 68.4% of our year-round residents and 89.5% of our part-year residents think we are doing a good job

So far, sixty survey questionnaires have been received. We would very much like to have at least one hundred responses, to provide a truly accurate representation of our whole membership, now about five hundred strong. If you have been meaning to send in your survey, but realize that the deadline has passed, please send it in, anyway. We can't extend the deadline forever, but, we can extend it until the end of January 2011. We really do want to know what you think.

Bay Harbor CKD Leachate: Update

by Gary Knapp and Dean Branson

The Regional Stakeholders Group (RSG) activities to develop a sense of community acceptance for a set of solutions to the Bay Harbor cement kiln dust (CKD) leachate problem are winding down, including TLA's involvement. On December 9th, the RSG submitted brief comments to the Department of Natural Resources and Environment (DNRE) at their public hearing for a proposed permit that could allow CMS to build and operate a new, \$4 million wastewater treatment facility to purify collected CKD-leachate before discharging to Little Traverse Bay. DNRE has scheduled another public hearing on January 10, 2011, to receive public comments for proposed permits (one from DNRE and another from EPA) that could allow CMS to drill an exploratory deep injection well on the Bay Harbor site for disposing collected CKD-leachate.

Although the two different types of permits for disposing of collected CKD-leachate (wastewater treatment and deep injection well) may appear to be offering the regulators and the public a choice for disposing of the collected CKDleachate, these two different permits are not intended to be a choice. CMS wants both permits to improve their longterm options and flexibility for disposing of collected leachate.

For this past year the RSG's Technical Working Group has been scrutinizing various possibilities for minimizing the amount of mercury entering into Little Traverse Bay from this site. Although the regulatory agencies' final remedy for the site has yet to be proposed, the RSG believes that their recommendations have influenced the critical details of the final remedy in a nonadversarial manner. DNRE's proposed final remedy for cleaning up the Bay Harbor site is expected to include the following elements:

- No trucking of liquid leachate to off-site locations.
- Constructing a new, on-site wastewater treatment facility that is expected to...

Remove more than 95% of mercury in CKD leachate Comply with Michigan's limit for total mercury; 1.3 parts per trillion Significantly reduce the amount of mercury entering the Bay from this site

- Drilling an exploratory deep injection well on site for disposing of leachate...If the substrate has sufficient porosity to accept leachate and if CMS receives a permit to operate this well, then CMS may dispose of some leachate, as a back-up for disposing of leachate in the new wastewater treatment facility.
- Installing additional engineering controls in the Pine Court area to further reduce the amount of CKD mercury entering the Bay from unavoidably uncollected leachate...

Instal multiple ground water diversion wells to dry-up buried CKD

Improve storm water management on the golf course Install wells to remove leachate perched on a shale layer under the golf course Install addition leachate collection trenches, remove

some CKD, as needed

Lower the level of ground water by pumping regional ground water wells

For further information about remedies for the Bay Harbor site CKD problem, TLA members are encouraged to contact TLA's contact on the RSG, Gary Knapp or alternate Dean Branson.

TLA 45th Anniversary: A Milestone

by Becky Norris

Wow! The Three Lakes Association will reach its 45th anniversary in 2011. The Annual Meeting Committee is planning a suitable celebration, tentatively scheduled for July 20. Mark your calendars. Plan to attend. The venue is not yet decided. High on our list of possibilities are Shanty Creek where we have met the last two years and the Pelican Room where we met a few years ago. If you have suggestions you would like us to consider, if you would like to get in on the planning, if you would like to provide or solicit items for the silent auction (proceeds of which help to support our educational activities) please get in touch. The TLA email address is info@3lakes.com and the phone number is 231-533-4852.



This photo shows part of the 2010 summer interns surveying the shoreline of Torch Lake near Camp Hayo-Went-Ha for Cladophora filamentous green algae; left to right, Norton Bretz (mentor and program leader), Melissa Makowski (mentor), Jake Crawford (Kalkaska High School), and Natalie Ranger (Elk Rapids High School).

Lake Watch Program Update

Dave Reck, President TLPA

Newly elected Sheriff Dan Bean kicked off his innovative "Lake-Watch" program when he took office two years ago. The idea grew out of an appreciation for the fact that law enforcement alone will never be able to adequately maintain a safe level of activity on the hundreds of square miles of lakes we have unless citizens help out. Thus far we have over one hundred and fifty volunteers who reside around the fourteen lakes covered by the program. These volunteers have undergone orientation training concerning the Michigan Marine Safety Act, toured the Emergency Dispatch Center, and received a locater sign to display in front of their home if they choose to. Their help has enabled marine officers to divert from other patrol areas in order to intercept noisy boats, and also boaters who were visibly intoxicated. Numerous other violations of boaters or personal water craft coming within one hundred feet of docks, rafts, swimmers, and anchored boats at any faster than a slow-no-wake speed have been corrected. Marine patrol officers will stop and explain to those people who do not know the rules how better to be a good neighbor on the water. Next summer the hope is to recruit more volunteers. There is not only a need for more volunteer locations around the shorelines of our lakes but also a need for volunteers who will ride as crew on the patrol boats. Having a second person in the boat multiplies the effectiveness of the marine officer enormously. If you would like moreinformation, please call (231) 533-3589 and leave a message with your name, address, and phone number. You will then receive some more



Antrim County Lake-Watch Member waterfront sign

information in the mail to help you decide if this program is for you. The Antrim County Sheriff Office needs your help. They want your help. Won't you please call now?

Forest Home Township Park – a Reminder

by Norton Bretz

Recently, a second grant request for funds to purchase land on the west shore of Lake Bellaire, part of the Miley property, for a Forest Home Township Park was turned down. And residents were again reminded that this plan is still being considered by the township. Many riparians have expressed opposition to the park and have asked TLA for support in this opposition. We opposed this park when it was first proposed and wrote a letter to the Antrim Review and the Michigan granting agency. Here is a copy of that letter in full.

Three Lakes Association is concerned about the long-term implications associated with proposed developments on the west side of Lake Bellaire. At other sites under the jurisdiction of Forest Home Township, the township has demonstrated a proactive sensitivity for designing and maintaining lake access sites and public parks. But the lack specific precautionary details for the proposed park on Lake Bellaire and adjacent housing development on the Miley property deserve greater public scrutiny. Neither project has sufficient information about how they will maintain water quality especially septic and sanitary assessment, runoff control, and greenbelt maintenance. Based on the information we have received, as of August 11, 2009, our Association stands against the public beach and site condominiums project on Lake Bellaire and presently under consideration in Forest Home Township. This stance is due to the potential environmental impact on Lake Bellaire and the appearance of "funneling" and of using public funds for private gain.

While some residents may want a more absolute rejection of the park proposal TLA feels obligated to be guided primarily by our mission to "preserve, protect, and improve the environmental quality of the Elk River Chain-of-Lakes Watershed for all generations...." Those that feel strongly about this issue should continue to voice their concerns at township meetings and seek representation on township committees.

Calendar:

Monday, June 28th, 2011 Golf Outing at Schuss Mountain

Wednesday, July 20th. 2011 Annual Meeting

Membership:

TLA Membership in 2010 is 514, the highest in recent years. We commend Todd Collins, for an outstanding job as Membership Chairman. Our newest members are Justin Brennan, Ben Van Heusden, and Dale Snook - Northaire Resort

Marina continued

noticed and Torch Lake has remained one of the cleanest and most popular lakes in the Midwest. The cleanup carried out this winter will go a long way to removing one of the worst sources of toxic input to our lakes. TLA is pleased that the DNRE decided to include phosphorus in the list of chemicals that will enter Torch Lake from the discharge of filtered water during the clean up operation. The ground water becomes enriched with phosphorus during excavation of soil below the water table. A second site, Torch Lake Village, is also undergoing a DNRE supervised gasoline storage tank cleanup this year. If you suspect or have evidence of any similar problems in your area, please alert TLA or DNRE directly.



As part of TLA's 2010 Environment Education Outreach Program, the Central Lake High School Biology Teacher requested and received a Swift microscope, which is shown here being used by Zack Beckman.

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January 2011 issue of the TLA Quarterly

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"*REMINDER*: please renew your 2011 membership in TLA soon, if you have not already done so."

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