

APRIL 2010

President's Letter

This year's transition from winter to spring has been very rapid. There was good skiing the first weekend in March and the maple syrup people were busy collecting maple sap. By the second weekend in March it was time to put away the skis, get out the golf clubs, and watch the daffodils emerge from the ground.

As I reflect on TLA's ambitious plans for the next few months, I am reminded of our increasing need for two things...the need to develop specific leadership succession plans and the need to maintain our collaborative partnerships.

We currently have an outstanding Board, but there is an ongoing need for more individuals who might be willing to consider stepping into leadership roles on our Board in the next few years. If you know of someone who might be interested in furthering our Board's mission, then please encourage them to contact me to informally explore ideas for their involvement. We have an immediate need for assistance with our summer internship program, preparing public relations stories, and collecting water samples for our E. coli monitoring program. Please join me in thanking Bob Kollin for his many years of service on TLA's Board.

Our Environmental Education Outreach Program is a terrific example of building new collaborative partnerships. As a result of this program, the teachers & students in the four schools systems in Bellaire, Central Lake, Kalkaska, and Mancelona are now more familiar with responses to threats to water quality within our watershed. This familiarity is based on their otherwise unaffordable field trips to the Grass River Natural Area, the Inland Seas Education Association's Schoolship excursions, and equipment for the teacher's environmental education curriculum. This is an investment in tomorrow's environmental stewards, voters, and decision makers. Please know that your donations, in addition to your annual membership renewals, are being used to help underwrite this program.

We also value our collaborative working relationships with other lake associations, local township officials, watershed councils, and regulatory agencies to help accomplish our mission. These collaborative partnerships have helped with our support of township's efforts to develop initiative to protect water quality such as inspections of septic systems at the point-of-sale, the Regional Stakeholder Group's efforts to address the cement kiln dust leachate problem in a non-adversarial manner, and the protection of the hydroelectric operation in the Elk Rapids Dam.

Our active participation in quarterly meetings of the Conservation Network is an ongoing part of our process for exchanging information about projects and activities in this



area. This information helps us prioritize our activities, align our advocacies, evaluate proposed new swim beaches & other developments, and minimize the chances of squandering limited resources duplicating other's activities. The Conservation Network is an informal group of individuals from organizations involved in protecting the Elk River Chain of Lakes.

Dean Branson

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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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Update: Bay Harbor Cement Kiln Dust Leachate Problem

by Dean Branson and Gary Knapp

The Regional Stakeholders Group (RSG) and its Technical Work Group have been meeting monthly since October 2009. The purpose of these meetings is to help build community acceptance of various proposed solutions to the cement kiln dust (CKD) leachate entering Little Traverse Bay. This leachate is coming from a disposal site at a former cement production facility under what is now the Bay Harbor community. The scope of the problem is evolving toward concerns about the amount of mercury entering the Bay and the most appropriate collection and disposal of the leachate. More information can be found at [www.littletraversebayrsg.com].

There is a sense of urgency within the RSG and its Technical Work Group to finish their work before August 2010. A final regulatory decision regarding the specific details of a remediation plan for this site is expected from EPA, MDNRE (formerly M-DEQ), and CMS Energy in October-December 2010. If the RSG develops an agreement on elements of the plan, then it must be communicated in writing to the regulatory agencies in a timely manner before August 2010.

Topics currently being addressed by the RSG include the following:

- CMS Energy has proposed building a new on-site treatment facility to remove mercury from CDK leachate that utilizes new technology. Preliminary estimates of 90% removal have been demonstrated. The new technology involves uses the best combination of more than 60 possible researched technologies such as ultra-filtration after converting dissolved mercury into particles using alum, iron, and flocculating agents.
- This customized facility could be located near the Bay Harbor site and the effluent discharged into the Bay there or the plant could be located near Petoskey's Wastewater Treatment (PWT) plant and effluent discharged through this facility. There is concern that the customized treatment facility alone may fall short of achieving compliance with the State of Michigan's water quality criteria for mercury of 1.3 parts per trillion and will require a variance to utilize the new technology.
- \bullet A permit variance would be required if only the customized facility is used. However, PWT is not designed to treat mercury. It would remove only 30-40% of the mercury directly and lower the concentration further by dilution. The total amount of mercury entering the Bay would not be lowered significantly.

Community acceptance is one of EPA's nine criteria for approving a final remediation plan for this site. Appropriately, the EPA's and MDNRE's understanding of a basis for community acceptance is up to the community, not these regulatory agencies. Most of the 14 Regional Stakeholder organizations seem to acknowledge that the total amount of mercury allowed to be released into Little

See Bay Harbor Cement Problem on page 7 for continuation

Torch Lake Village Gas Pollution

by Jack Norris

It's good to see continued interest in cleaning up an old problem – thanks to the DEQ and the newly minted DNRE. In 1973, during the construction of the Standard Service Station in Torch Lake Village, two joints in the piping leading from the underground stor-

age tanks to the distribution pumps were cross-threaded - something not realized until the tanks were removed a couple decades later. The leakage was later calculated to be about 25 gallons per day. Another flaw not noticed at the time of construction was a crack in the casing of the Standard Service Station water well which was about 6 – 12 feet underground.

In 1978, just down a gentle slope from the service station, gasoline began spitting up in the Stroebel family's drinking water. Part of the reason was discovered years later: Precipitation had been well below average for several years Casing flaw
Sandy soil

Leaked gasoline

Clay lens

Sandy soil

Leaked gasoline

Clay lens

Sandy soil

Leaked gasoline

Clay lens

Sandy soil

Leaked gasoline

This sketch shows a cross section of the contamination site. The white outlines indicate areas of approximately an acre.

resulting in a lowering of the groundwater table, and the leaked gasoline, floating on top of the groundwater, had come into contact with Stroebel's intake screen, some thirty feet down. Within a few days, the gasoline pollution stopped. The abrupt cutoff occurred because the groundwater table rose following heavy rains. Precipitation went from about 83% of normal in 1976 to 150% of normal in 1977; but no one connected those dots until years later.

There was a rather limited investigation at the time by the DNR and the Department of Health; useful data were generated but, oddly enough, not analyzed; Stroebel's well was closed and replaced with a deeper well; and the case was marked Source: Unknown; Case: Cancelled.

Now fast forward to 1985. The service station has changed hands twice and its last owner, the Day Oil Company, has gone out of the gasoline business; the building has become a gift shop belonging to Bob Hybl. In 1985 there had been a nearly constant increase in annual precipitation for several years, and the groundwater table had risen to the point where the gasoline floating on top of it was now in contact with the flaw in the well casing. Whenever the well pump switched on, the floating gasoline got sucked in, and came out the taps inside the gift shop.

Once again, the Health Department, and the DNR took an interest in the matter, aided by the federal EPA. Gasoline was again identified as the pollutant, the well was condemned and closed; a

new well was drilled, found to be gasoline-polluted, closed; and a third well drilled, and is still there today. Several people exposed to the polluted water were reported to have contracted cancer. However, a cancer cluster study was carried out with inconclusive re-

> sults. Bottled water was provided to many households and local businesses by the State.

In 1989, the Torch Lake Development Corporation applied for a permit to build condominiums on the open field between the former service station and Torch Lake – the area now known as the William Good Day Park. Torch Lake Township Board of Trustees appointed a commission to consider the proposal. One element of the proposed plan was to dig trenches to accommodate a large septic distribution field, handling 10,000 gallons of septage per day despite the unresolved

matter of gasoline contamination. One of those trenches would have led right from the contamination site to the Torch Lake. On the commission's recommendation, the township denied permission, and the corporation sued, naturally. But the suit was unsuccessful. The condo idea was dropped and the Township looked into the possibility of developing a Day Park.

The total amount of gasoline that leaked into the ground during the life of the service station has been estimated to be between one and two hundred thousand gallons. Needless-to-say gasoline is contains chemicals like benzene, xylene, and tolulene that are both toxic and carcinogenic to humans. We know that some of it has drifted southwest and put the local Bay Harbor Club community well out of action. In developing a plan for cleanup of the Torch Lake Village site, DNRE has drilled a number of test wells between the Day Park and Bay Harbor Club. The gasoline plume appears to be moving from the original site just south of Sonny's Market west toward Grand Traverse Bay. Surprisingly, the plume is <u>not</u> moving toward Torch Lake nor is it moving north. Sonny's Market tests their water several times a year and has seen no problems.

Now there is a clean-up effort being carried out in Torch Lake Village by the Health Department and the DNRE using the consulting firm AECOM. In January 2010 five new wells were drilled

See Gas Pollution on page 5 for continuation

What's New with the TLA Education Outreach Program?

by Patricia Roush

As of the end of January, the 2009-2010 TLA Education Outreach Program is benefiting area schools. By phone, email and letters, administrators and teachers in our four school districts; Bellaire, Central Lake, Kalkaska and Mancelona, have sent their thanks to Three Lakes for this year's wish list and other funding. Bellaire and Central Lake recently arranged for their annual trips aboard the Inland Seas schoolships funded by TLA. Kalkaska and Mancelona will take their ISEA trips this spring and next fall, respectively.

On April 13th, Kalkaska physics teacher, Kim Cotton, and five students will give a presentation to the TLA Board of Directors on their May trip to Chicago to visit the Fermi National Nuclear Acceleration Laboratory, the Museum of Science and Industry and two other museums, the Argonne Labs and Six Flags Amusement Park. Physics students will use what they've learned in the classroom and on the trip, at the park, to calculate G-force, acceleration, velocity, etc. Ms. Cotton applied for funding through the Carol Gray Norris Science Education Fund to help five students with

extreme financial need. Thanks to the efforts of TLA President, Dean Branson, the Kalkaska Rotary Club assisted in the funding.

- Bellaire Public Schools received \$1,468 in wish list awards which funded field trips to Grass River Natural Area and the AuSable Institute, classroom equipment including kits and oxygen/carbon dioxide sensors. TLA also helped to fund a blended Science/Language Arts field work grant for Biology II and English students at Bellaire High School.
- Central Lake Public Schools received \$1,346 in wish list awards which funded field trips, provided classroom kits and books and enabled the CLHS AP Biology students access to virtual lab software as well providing a chemistry program for analytical gravimetric determination.
- Kalkaska Public Schools received \$1,124 in wish list awards which went toward teacher attendance at two science conferences, membership in the Michigan Science Teachers Association and classroom mate-



Kim Cotton's Kalkaska High School physics classes on Lake Michigan in front of the Shedd Aquarium

rials including kits and an incubator. **The Carol Gray Norris Science Education Fund awarded \$1200** to enable five KHS physics students to attend the Chicago Physics in May, 2010.

- Mancelona Public Schools received \$1,163 in wish list awards which funded GRNA field trips for all middle school students and classroom equipment including a document camera.
- Four ISEA Schoolship Field Trips, at a cost of \$800 each, were awarded; one to each district.

TLA looks forward to hearing more from the teachers and students this spring regarding the benefits and experiences TLA's outreach program afforded them.

TLA Board Presentations

by Dean Branson

At TLA's February Board meeting, Phil Ellis, the new Executive Director of the Grand Traverse Regional Community Foundation, and Paul Kester, Financial Director, clarified the Foundation's new rules associated with spendable reserve relative to the minimum account balance required to obtain grants to support TLA programs from earnings from TLA's Three Lakes Watershed Fund. Currently, TLA has the Three Lakes Watershed Endowment Fund there.

At TLA's March Board meeting, Kevin Cronk, Monitoring and Research Coordinator at Tip of the Mitt Watershed Center, summarized services and expertise available from this Watershed Council. He summarized case studies regarding aquatic and shoreline plants, and water quality surveillance using their work with the Mullet Lake Association.

At TLA's April Board meeting, Kim Cotton (a science teach from Kalkaska High School) and five students from Kalkaska will summarize their Physics Field Days in Chicago in May. TLA^1s Carol G. Norris Fund provided a few scholarships to help students participate in the 2010 field trip, which will include the student¹s realworld determinations of gravity and velocity.

Central Lake High School Envirothon

by Norton Bretz

TLA has served as a local sponsor for the Central Lake High School Envirothon competition. This competition has been run by the Michigan Conservation Districts since 1994. Teams of five high school students and an alternate utilize local resource professionals to inform themselves about natural resources and then compete against other teams throughout state. They are tested on six specific areas: Agriculture, Aquatic Ecology, Forestry, Energy, Soils/Geology, and Wildlife. In addition each team must have a community project that addresses an environmental issue.

A team from Central Lake High School has entered for the first time this year. Students Mike Butler, Elizabeth Evert, Mike Leask (alternate), Matt Scott, Wilhelmina Witt, and Alisha Youmans got together and found local sponsors to help them compete. Wilhelmina and Alisha were also part of the TLA Internship Program last year. Dean Branson is serving as their advisor. Norton Bretz gave a tutorial to the group on Aquatic Ecology and other experts were invited to cover the other subject areas. Their community project is an analysis of energy losses from doors, windows, and other areas in the Central Lake High School building. They are developing recommendations about how to reduce these losses and reduce the heating costs in the building. A local builder of energy saving structures [GBK Construction LLC] and emergency room doctor at Munson Hospital, Dr. Marc Krakow has helped the group with a thermal imaging camera and advice about how to estimate losses from these images.

The regional competition took place Friday, March 12th at the Boardman River Nature Center in Traverse City. There were six teams competing including several from Glen Lake High School. The students were given a short tutorial in the relevant subject areas in the morning and took the test just after lunch. Now the really good news.... **Central Lake High School came in first**



Central Lake High School students (left to right):Mike Leask (Alternate), Wilhelmina Witt, Elizabeth Evert, Alisha Youmans, Matt Scott, and Mike Butler.

TLA Advisors Norton Bretz and Dean Branson in back Photo courtesy of Chuck Olson

place among all the teams and has advanced, along with the second place team, to the state competition in Maple City in May. In addition the Central Lake community project was selected among two to be featured at the meeting because of its relevance and thoroughness.

Needless-to-say, we are very proud of the Central Lake team and happy that they have advanced to the state competition. We wish them the best of luck Maple City.

Gas Pollution

continued

near the original Standard Service Station. These wells are currently being used to clean up the gasoline. The current AECOM operation vacuums up 2,750 gallons of gasoline-water mix, with the hope of removing 30,000 gallons of gasoline over the 11-month life of the planned remediation, at a cost estimated at just under \$50,000. The fluid is trucked to an industrial waste processing plant in Holland, Michigan. Budgetary limits mean that a lot of the gasoline will probably not be removed. That's the bad news. But there are microbes that feast on gasoline and change it into harmless substances. That's the good news. Randy Rothe is the MDNRE specialist in charge. He can be reached for further information at the Gaylord Field Office, 989-705-3416.



A photo of the vacuum truck belonging to AECOM in Torch Lake Village in March

Remember the Elk Rapids Dam Relicencing Plan?

by Mark Stone

The following is a slightly modified version of a letter recently sent out by the Antrim County Drain Commissioner and Chairman of the Elk Rapids Dam Relicencing Commission, Mark Stone.

We've had some important developments in the Elk Rapids Hydro Dam licensing this past week. As most of you know, we filed the Pre-Application Document (PAD) in late December. The Federal Regulatory Commission (FERC) has now responded to our filing. First, we received a letter acknowledging our filing. FERC also approved the use of the Traditional Licensing Process (TLP), which we believe will be easier for us to manage since it involves more management support from FERC throughout the licensing process.

Once we filed the PAD and FERC responded, a clock began ticking. During the first 60 days, the statutory stakeholders respond to the filing with preliminary comments. Then, we (the County or the licensee) are obligated to hold the meetings mentioned above. Simply put, the meetings allow FERC to evaluate what issues may be controversial or otherwise important during the licensing process. As of today, we expect two members of the FERC licensing staff to be present. Also, representatives of the DNRE Fisheries Division, US Fish and Wildlife Service National Park Service, and DEQ are expected.

This will be an important meeting for a number of reasons: It will be the first impression of our project and our community on the individuals that will determine how simple or complicated the licensing process will be (especially with regard to the agency representatives listed above). The FERC staff, which has reviewed our PAD, will be looking to substantiate and confirm the assertions made in the PAD, especially the strong community support that we described. The same holds true for the representatives of the other government agencies that will be present.

Joint TLA/TLPA/GRNA Educational Events

The two Joint TLA/TLPA/GRNA Educational Events that are offered each summer are in the planning stages. As usual we will send out notices in advance and have appetizers and wine at the events as usual. So far, the dates and topics of these events have been chosen. They are:

Wed. June 23, 2010 at the Alden Depot at 4 PM: Sheriff's Lake Watch Program

Tues., Aug. 18 at the Torch Lake Township Day Park in Torch Lake Village at 4 PM, In the Drink VII: Lake Cycles (tentative title). Therefore, we request representation at the Stakeholder Meeting from as many facets of the local and regional community as possible, including the local governments, lake associations, commercial interests, cultural institutions, environmental organizations, etc. (You know who you are because we've been enlisting your help already!) It would be helpful if representatives of the organizations in the Antrim Chain Conservation Network that signed the letter of support were present to reiterate their point of view.

We have been told to expect an extensive meeting that will probably take most of the day. We will be providing lunch and expect to open the dam for tours. We will do our best to accommodate those who can attend for a short period of time, so they can speak their piece without having to attend the entire meeting.

One issue that is sure to be discussed at the meeting is the Project Boundary. As some of you know, the County had argued strongly for drawing the Project Boundary around the powerhouse. (The objective here is to keep the project requirements simple by limiting the area of responsibility.) We had even gone to the extent of hiring Jim Olson's firm to research the issue and write a legal opinion that demonstrated that the County had all the necessary legal rights to operate the hydro dam within that boundary. Nevertheless, in FERC's response to the PAD they specifically called for the entire reservoir (Elk and Skegemog Lake) to be included in the Project Boundary. Despite our entreaties, FERC's legal department would not budge. The upshot of the Project Boundary is that it's going to involve more work, but it's a challenge that can be met, at least I believe so.

As all of you know, we began this relicensing effort knowing that it was going to be a difficult challenge. While things are on track and we have every reason to believe that we will reach the finish line, we are by no means certain of success. It seems like every time we get an obstacle behind us, another one appears on the horizon, but then a solution seems to present itself, and we are on to the next phase.

Please try to attend the Public Hearing at 6 PM, Monday, April 19, 2010, at the Elk Rapids Governmental Center on Bridge Street.

Bay Harbor Cement Problem continued

Traverse Bay from this site is one of the critical factors of community acceptance....less mercury is better. The regulatory agencies appear to be bound by policies and laws to strongly encourage the use of the public PWT regardless of whether using the proposed new technology would remove more mercury.

Therefore, there appears to be a sense of urgency to develop a rationale basis for a consensus for community stakeholder's acceptance of the utilization of the new technology for removing mercury from the collected leachate. For further information about this issue, members of TLA are encouraged to contact TLA's representatives on the Regional Stakeholders Group, Gary Knapp or alternate Dean Branson.

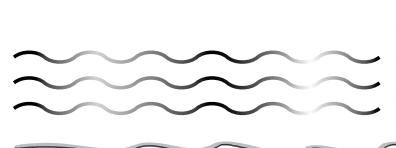
Forest Home Township's Proposed Township Park on Lake Bellaire

by Norton Bretz

The Forest Home Township Parks Committee has approved a new application to the Michigan Natural Resources Trust Fund for a grant to purchase 300 feet of property owned by the Miley family for a township park on the west side of Lake Bellaire. A public meeting to discuss this application was attended by over 40 people on March 10. The atmosphere at this meeting was much more congenial than at a previous meeting when a similar grant application was approved. However, the concerns raised were similar: increased boat traffic, noise, and congestion; perceived need for a park; degradation of water quality; and perceived connection to development on the Miley property. A number of residents spoke out in favor of the proposed township park. Committee chair, Bev Eisenberger answered questions and assured the audience that Forest Home Township had been trying to purchase the property well before the issue of the Miley development was proposed. In fact, the development proposal has been indefinitely postponed at least partly because of community concerns. A number of speakers expressed more concern about the development than the park.

TLA has been watching these plans since the original grant application a year ago. TLA expressed an opinion in the Antrim Review last July that the park and Miley development together had the appearance of a funneling project and that we were opposed to it. However, TLA is not generally opposed to parks or developments as long as they comply with township and county standards for proper septic facilities, proper greenbelts, good runoff control, and restrictions on minimum lot sizes and housing density. In addition TLA has offered the Forest Home Township our expertise in evaluating water quality for any specific park or housing development plans. TLA has recently produced shoreline and lake bottom surveys of Lake Bellaire [www.3lakes.com] and has done a computer study of the effects on Lake Bellaire of dredging Craven Pond. In addition we alerted residents to an unusual and dramatic decrease in water clarity in Lake Bellaire for a short period last summer, and we will continue to carefully monitor and document water quality in the lake.

TLA will continue to advocate high standards of water quality and land usage to the proposed park and to future proposals for housing developments. We are especially interested in applying best practices to maintain or improve water quality in Lake Bellaire. TLA has a long standing legal history of opposing funneling and will oppose any plans to increase boat traffic at the proposed park.



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April 2010 issue of the TLA Quarterly

The Mission of the Three Lakes Association is to provide leadership to preserve, protect, and improve the environmental quality of the chain of lakes watershed for all generations.

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