

The Last Mountain Lake Stewardship Group (LMLSG) dispute the “facts” presented by the Water Security Agency!

On August 25th and August 26th 2015 members of the Last Mountain Lake Stewardship group (LMLSG) spent two days away from work and family to attend the open houses the Water Security Agency (WSA) held in regards to the Kutawagan Creek diversion project. Our group handed out information sheets to the attendees expressing our concerns over the “proposed” diversion project that WSA has already tendered out for design work. We strongly believe the impact upon our lake may be much worse than the WSA is publicly acknowledging. We dispute many of their “facts” and with good reason. The WSA has presented vastly different sets of water quality “facts” regarding this project, while not publicly addressing the other serious water contamination concerns this diversion may create.

It appears that the WSA wants the water quality focus to be based solely upon salinity of Last Mountain Lake (LML), while the other serious contaminants go undiscussed. This is what my grandpa called “shell game” and it can have hazardous consequences. **For example:**

- a) Ammonia can block oxygen transfer in the gills of fish, thereby causing immediate and long term gill damage. Fish suffering from ammonia poisoning will appear sluggish and come to the surface, as if gasping for air. The Canadian Council of Ministers of the Environment (CCME) water quality ammonia guidelines for the protection of aquatic level is **0.07 to 0.17 mg/l** for lakes with our pH values. <http://cegg-rcqe.ccme.ca/download/en/141> June 2014 water quality data recorded the ammonia level of Kutawagan Creek as **0.28 mg/l** which is significantly higher than what is considered safe. Alarming, as this water will flow through ammonia rich farmland towards Last Mountain Lake, these ammonia levels are very likely to increase.
- b) Excessive chloride, even in short term exposures of 24 to 96 hours, can lead to lethal effects on aquatic life. The CCME recommended levels to protect aquatic life are **620 mg/l** for short term exposure and **120 mg/l** for long term exposure. <http://cegg-rcqe.ccme.ca/download/en/337> In July 2014, the chloride levels in LML were measured at 94 mg/l, while Kutawagan Creek levels were found to be as high as **1280 mg/l**.
- c) Cercarial Dermatitis (swimmer’s itch) is a flatworm parasite originating from the feces of seagulls, shorebirds, ducks, and geese. This parasite lives in water and eventually can enter human hosts, causing the red itchy reaction many of us know all too well. Water with high bird populations, such as the Quill lake area, (with over one million bird annually) is highly infected with this parasite. What will be the outcome for recreational users of LML when a high concentration of this parasite is diverted into our lake?

These concerns are just some examples of why we need a full independent environmental study/review prior to diverting this water into our lakes.

But let's get back to the questionable "Facts". In August 2015, local government officials received an invitation to attend a stakeholder's consultation meeting hosted by the WSA only to learn that there was no "consultation" held. The WSA force fed us their preselected diversion option, while ignoring numerous other options detailed in the engineering study known as the Golder report. The WSA did not pre-supply any water quality data or reports to the numerous community leaders invited, preferring us to attend uninformed. They did not discuss what their next options would be if the Kutawagan Creek option was rejected?

The WSA now uses questionable, outdated or incorrect "facts" to continue to sell this project to the public and to our government leaders. This is a strong statement but is supported by the following.

1. On August 20th 2015, the WSA reported that the total dissolved salinity level of Last Mountain Lake (LML) is "normally between **1500 and 2400 mg/l**". The LMLSG collected water samples for years on behalf of the Saskatchewan Water Authority and found the TDS levels were significantly lower! The LMLSG could not find a TDS value of 2400 mg/l unless they assessed records from fifty years ago (1968). How is that "normal"? The data distributed by the WSA at the stakeholders meetings (Aug 2015) showed the current salinity of LML was only around **1400 mg/l** and their June 2015 news release showed an average TDS of LML to be **1245 mg/l**. Other 2015 data released by the WSA shows the long term TDS of LML as being **1600 mg/l**. Their recent statements about normal TDS levels reaching 2400 mg/l are at the least, very misleading and inaccurate! The LMLSG believes this highly exaggerated TDS value is being used in an attempt to mitigate the concerns of saline water from Kutawagan Creek entering LML.
<http://globalnews.ca/news/2170346/salty-quill-lakes-at-risk-of-overflowing-into-last-mountain/>
2. The WSA Executive Director of Policy and Communication stated in an August 19th news release that "the water from Kutawagan Creek would be at the higher end of the normal scale of dissolved solids already flowing into Last Mountain Lake... so it **shouldn't** hurt the fish". ("Shouldn't" is not much of a guarantee from a senior WSA official responsible to ensure our fish are safe). <http://cjme.com/article/203110/salty-water-quill-lakes-flooding-farmland>. But let's look at the "facts" here once again in regards to whether this statement is accurate. Earlier this summer, the WSA released data (see link below) showing that the TDS salinity of the four major creeks flowing into LML was between 973 and 1395mg/l with the average salinity being **1090 mg/l**. The same report shows the salinity of Kutawagan Creek was between 3830 and 5400 mg/l, with the average salinity being **4615 mg/l**.
 - a. How is a 300% difference in TDS salinity similar to one another?
 - b. The measured salinity of Kutawagan Creek is tripled the normal salinity of LML and over four-fold higher than the salinity of the tributaries flowing into LML. His statement simply does not appear to be correct!

<https://www.wsask.ca/Global/About%20WSA/Quill%20Lakes%20Open%20House/Water%20Quality%20Assessment%20for%20Kutawagan%20Diversion%20Project.pdf>

It is quite concerning that since the recent public outcry about this project, the WSA appears to have "amended" their technical data to make this project much more palatable for stakeholders downstream.

3. On September 2nd 2015, the WSA sent out an email to stakeholders that stated “*Some of the concerns Water Security Agency is receiving about the project are based on inaccurate information on the project and its effects*”. Perhaps the WSA needs to examine who indeed is supplying inaccurate information. Their attached document entitled “*Quill Lake Fact Sheet*” repeats their inaccurate TDS values and fervently states that the WSA will not be releasing saline water from Quill Lakes. What they fail to acknowledge anywhere in this document is that they will be diverting the saline water from Kutawagan Creek downstream to LML! I find this omission unfathomable. The WSA appears not to be forthright or transparent in their discussions about the Kutawagan diversion project. They identify Kutawagan Creek as having a salinity of 2400 mg/l (contrary to their own data) so they do not have to identify this water as saline water, (being water with a salinity value of over 3000 mg/l). WSA’s own data shows the average peak salinity values for Kutawagan Creek during the last five years (the period of flooding) is in excess of 4200 mg/l.

The WSA also stated in this document that because the Kutawagan inflow into LML will be within the range of TDS already observed at LML (which isn’t inaccurate), “the *overall water quality impacts to Last Mountain Lake is expected to be small*”. “Expected to be small”? That’s not much of a reassurance from the agency tasked with protecting our water. If they’re wrong, do they simply say “oops”? We need answers based upon studies and science rather than on someone’s “expectations”.

The CCME (endorsed by our government) recommends that human activity should not cause the salinity of estuarine waters to fluctuate by more than 10% of their natural levels. The WSA has already stated that they are concerned about the poor mixing aspects of the diversion water entering LML. It is not unreasonable to conclude that the high concentrations of saline water entering LML will be in concentrations greatly exceeding the CCME’s recommended 10% threshold at the mixing point, which is a major spawning ground for our freshwater fish. <http://cegg-rcqe.ccme.ca/download/en/209> High salinity levels are known to negatively affect the hatchability of fish eggs and fish fry mortality.

Another concern is that the WSA is responsible to supply accurate information to outside agencies conducting environmental assessments and reviews. If the raw data going into these environment assessments (which the WSA wants to be exempt from) is tainted in any fashion, how can outside agencies be expected to achieve accurate conclusions?

It is imperative this project be suspended until a full independent environmental review has been completed. Please make your voices heard by contacting Premier Wall at premier@gov.sk.ca, your MP tom.lukiwski@parl.gc.ca and your MLA ghart.mla@sasktel.net . Continue to voice your displeasure to Mr Herb Cox Minister of the Environment (and minister in charge of the WSA), herb.cox@saskparty.com and president of the WSA wayne.dybvig@wsask.ca Ask them specific questions in regards to this project and demand a reply. Our government is facing a deficit and wants to delay expenditures. Why not delay this potentially hazardous multi-million dollar project until after an environmental review has been conducted? Like the fish in our lake (while we still have them), the WSA needs to be “reeled-in” by our elected officials.

Submitted by Tom Fulcher - September 2015

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