

**Sender:** John Fefchak

**Subject:** Joint Commission- Public Input -Lake Winnipeg

**Message:**

Fertilizer reduction efforts to Lake Winnipeg must also include Nitrogen.

MAY' is the operative word because less nitrogen favours ONLY those particular blue-green algae that can fix nitrogen from the air, and this ability is enhanced when oxygen is low. However many other blue-green algae do not have this ability, nor do all of the other eucaryote (non-blue-green) algae.

(There are blooms that survive taking nitrates from the air, and there are blooms in water that need soluble nitrates to survive.) Studies have determined discharge of nitrogen into bodies of water has been linked to eutrophication.

Treatment Plants that only reduce phosphorus from sewage, will give an advantage to all the algae that need nitrogen as well as phosphorus, and there will still be blooms.

Therefore, it is imperative that both, phosphorus and nitrogen be addressed and removed, if Lake Winnipeg is to have any expectation of being saved.

Yes, the financial stakes are high, but how much is the value of those irreplaceable waters?

If nitrogen is irrelevant, as some have claimed it to be, then why is nitrogen added to fertilizers if it does not stimulate plant growth? Algae are plants too.

Politics aside, we cannot afford to wait another generation, or more, to see if a "phosphorus first" approach works.

Lake Winnipeg is at a crises stage and needs all the help that we can provide.

John Fefchak

<http://www.cbc.ca/news/canada/manitoba/nitrogen-algae-blooms-lake-winnipeg-phosphorus-1.4492042>

Billion-dollar nitrogen reduction efforts may have minimal impact on toxic algae blooms: study | CBC News Costly efforts to reduce toxic algae blooms on Lake Winnipeg by controlling nitrogen flowing into the water could have little to no impact, according to results of a decades-long study.