

Manitoba Wildlands Comments – Lake Winnipeg Stewardship Board (LWSB) Interim Report to the Manitoba Minister of Water

Stewardship

Our Collective Responsibility - Reducing nutrient loading to Lake Winnipeg

Fifth Draft, January 7, 2005

LWSB Public Registry File # 4975.00

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General Comments

We are providing two sets of comments on the Fifth Draft (January 7, 2005) of the LWSB interim report. This first set is a set of observations, comments and recommendations on the various parts and sections of the draft. The second set of comments (attached) is an analysis of the extent to which the content of Manitoba Wildlands' initial submission to the LWSB (November 5, 2004) has been reflected in the current (fifth) draft LWSB interim report. This second set of comments contains many of our suggestions specific to the LWSB recommendations.

In this document, we have divided out comments into three sections. This first section of our comments contains some observations about the **overall format and content** of the draft LWSB interim report. The second section pertains to **Part 1 of the draft LWSB interim report** and the third section pertains to **Part 2 of the draft LWSB interim report**.

Overall, we feel that the January 7, 2005 draft LWSB interim report is a good beginning, but significant work still remains to fill in gaps and expand on certain issues.

A variety of legislation, regulations, and public policy currently exist that pertains to the health and water quality in Lake Winnipeg in one way or another. This would include not only regulatory mechanisms that address the permitted activities that affect bodies of water that drain into the lake, but also mechanisms such as under the Provincial Parks Act (and other Acts employed under the Protected Areas Initiative) that result in protection or restrictions on permitted activities related to the health of the lake and the watershed. It would be helpful for the interim LWSB report to **clarify the policy and regulatory framework associated with Lake Winnipeg**. A listing of such documents and the specific clauses within each that are pertinent to Lake Winnipeg would be a start. In addition, LWSB recommendations pertaining to the alteration, revision, and additions to legislation, regulations or policy should be flagged and a summary of recommended changes to the policy and regulatory framework should be provided as an appendix.

The maps and charts in the draft interim LWSB report should be evaluated for clarity and message. Sources for all information presented in maps and charts must be included; the current draft is inconsistent in this regard. Some Figures and tables indicate specific sources, whereas others do not include any sources information.

Sources – aside from figures and tables – are a concern for the text of the draft interim LWSB report generally. Please see comments below re: figures and tables and our attachment re: analysis of the extent of incorporation of Manitoba Wildlands’ comments. Dr. Eva Pip has also raised this issue in her review of the December 7, 2004 draft interim LWSB report.

We also wish to note that political statements have no place in this report; a review of the language of the report with careful scrutiny for such statements should be undertaken prior to finalization of the draft report.

Re: Part 1: Lake Winnipeg and Its Watershed

The organization of Part 1 of the report could be improved. Currently the sections are as follows:

Description

Human History and Settlement of the Lake Winnipeg Area

Hydrology and Climate of Lake Winnipeg

Agriculture

Lake Winnipeg Fisheries

Lakeshore Lifestyles and the Economy

Hydro-Electric Reservoir

Drinking water and process water use.

Natural Habitats

Lake Winnipeg Water Quality

Manitoba Wildlands suggests the following improvements:

- Split Part 1 into three parts – Part 2 would be: ‘Human Uses and Influences’ and Part 3 would be: ‘Lake Winnipeg Water Quality’
- Rename the ‘Natural Habitats’ section and expand it to encompass the ecology of the Lake. (Please see our comments on specific sections for more on this topic) The section should also be moved so that it follows directly after the ‘Description’ section
- re-order Parts and sections as follows:
 - **Part 1: Lake Winnipeg and Its Watershed**
 - **Geographic Description**
 - **Lake Ecology**
 - **Hydrology and Climate of Lake Winnipeg**
 - **Part 2: Human Uses and Influences**
 - **Human History and Settlement of the Lake Winnipeg Area**
 - **Agriculture**
 - **Lake Winnipeg Fisheries**
 - **Lakeshore Lifestyles and the Economy**
 - **Hydro-Electric Reservoir**
 - **Drinking water and process water use**
 - **Part 3: Lake Winnipeg Water Quality**

Re: section entitled 'Natural Habitats'

This section should be renamed and expanded to be about the ecology of the Lake. It should include:

- description of major indigenous riparian and aquatic ecological systems and habitats
- ecosystem functions served by these habitats
- special attention to ecosystems containing and habitats supporting rare and endangered species (plant and animals)
- alterations and sources of changes to ecosystem (general terms)
- special attention to human impacts to above
- estimates of how much riparian and aquatic habitats are intact vs. compromised
- could also include some PA content in terms of what is protected on, around the lake

Re: Chart in Fisheries section (pg 15).

The chart would be improved by including data that goes back further in time. The title of the chart should indicate its purpose, in addition to describing what it is.

Re: Lakeshore Lifestyles and the Economy

On page 16, there is a passage that states,

The future water quality of Lake Winnipeg could have an impact on the appeal of the lake for the continued growth in these areas and the related economies. However, continued recreational development itself around the lake could also impact the quality of water in Lake Winnipeg if not properly managed.

The second sentence regarding impacts of recreational development is an understatement and at the very least “could” should be replaced with “will” and some reference to the importance of planning and protection of key areas should be included in this paragraph.

On page 17, there are two paragraphs pertaining to parks. No distinction is made between protected areas versus parks. Areas that are in fact protected from development should be explicitly described. A map would be helpful. The section could also be expanded to describe the various functions and value of protected areas.

Re: Hydro-Electric Reservoir

This section needs to clearly explain the regulation regime for Lake Winnipeg and its functioning as a reservoir. To understate perhaps the single most significant source of regulatory (and potentially the most significant economic and environmental) impacts on the Lake could be taken as an indication that the LWSB may not be taking its mandate seriously enough. In particular, the effects of ‘reservoir’ management of the water cleaning cycle must be investigated.

Specifically, Manitoba Wildlands suggests that the following elements are requirement for this section:

- natural flows of Lake Wpg
- how regulation as a result of Manitoba Hydro infrastructure and activities has altered the natural flow regime, water quality, general ecology
- ecological effects of converting the lake into a reservoir, especially in relation to eutrophication

The political and social context of the time in which decisions were made to use the Lake in this manner, and the fact that current circumstances are vastly different (as evidenced by the existence of the LWSB, among other things) should probably also be noted.

Currently, the last part of this section states:

Hydro-electric generation is considered by many to be a relatively clean source of energy. The production of an estimated 30 million tons of carbon dioxide is avoided as a result of Manitoba using Hydro over fossil fuels

These are political comments, they have no relevance to the health of Lake Winnipeg, and they have no place in this report.

We have also reviewed (with permission) the comments provided by Dr. Eva Pip regarding the December 7, 2004 draft of the interim LWSB report. We wholeheartedly support and endorse all of Dr. Pip's comments. Below we quote some examples of critical issues identified by Dr. Pip that we feel require particular attention in the next draft of the interim LWSB report.

*It would thus be extremely beneficial if some recognition at least was made of these physical and chemical relationships, to provide and demonstrate a basic grasp of the complex nature of the issues and of their interdependence. The public need to understand that the lake is a very delicate and **complex** system that has to be returned to balance involving a whole array of interrelated factors and addressing many different types of human impacts if it is to function again in a self-sufficient and self-renewing way.*

(Pg. 9)

There is an important refugium of organisms otherwise found only on the Precambrian Shield, in the Beaver Creek Park area on the west side, due to the unusual water quality attributes at this site.

*The draft document (p. 10) very carefully and pointedly avoids **specifics** of the use of L. Wpg. as a hydro reservoir, and the impacts of water level controls on lake hydrodynamics. While there is some chest-thumping regarding the economic benefits of hydro in Manitoba, it would be very useful to provide some actual numbers regarding flow rates in high-water and low-water years, and some statement regarding the impacts on nutrient retention in the north basin, as well as both pro and con findings with respect to shoreline erosion, both of which in turn relate to nutrient budgets. The point is: not only have nutrient loadings to the lake increased, but the nutrients are retained in the system longer.*

The draft document makes no mention of the impacts on nutrients and water quality of events such as the 1997 flood, which washed out every barn, landfill and hazardous waste storage site within the Red River floodplain. Similarly there is no mention of low-water years such as 2003. Both of these extremes had a measurable impact on water quality, and on community diversity (certainly on the benthos).

(Pg.10)

With regard to new development, it is strange that one of the most important direct impacts has not been addressed. This concerns the inappropriate and unconscionably dense new cottage tracts that have been and continue to be allowed to spring up, without any consideration of the long-term sustainability or the environmental damage that is inflicted on very sensitive and fragile areas, some of which ought to be left alone because they are important for the health of the lake. Some areas should be designated as special preserves where development would not be permitted. Such areas would include selected marshes, regions where erosion is a particularly large risk (e.g. Sunrise Beach, but it is too late), and sites of particular value or interest.

There is no mention of new technology for situations where neither septic fields nor holding tanks are appropriate, for example the self-contained residential sewage treatment plants for individual residences (known as PTP's or Prepackaged Treatment Plants), that provide efficient levels of removal and are also reasonable in cost. I have seen such units in service in the U.S., and local suppliers do exist here.

In addition to the mention of failed septic fields (i.e. ponding), it would not be remiss to add the compromised (by shotgun) or overflowing holding tanks that we see so dispiritingly often in cottage areas.

The issue of phosphoric acid addition to Winnipeg tap water deserves far more notice than is accorded it in the draft. We have monitored Winnipeg tap water continuously since 1975, and the amount of orthophosphate that comes out of the tap now compared to pre-2000 is of great concern, given that most of this water becomes wastewater. This deliberate exacerbation of an already unmanageable nutrient problem in the receiving waters should not be allowed, as alternative ways to deal with the lead pipe-leaching problem do exist. The solution to one problem should not be the cause of another.

. . . I was appalled to see the mention of alum, apparently seriously, as a possible nutrient control strategy. I would beg the science committee to reread the scientific literature regarding the intractable toxicity of aluminum in aquatic ecosystems. Aluminum never degrades or becomes transmuted into some other less noxious substance. It is cumulative, and the effects of its introduction cannot be undone. This kind of solution is akin to gilding the railings on the Titanic.

(Pg. 11-12)

The existing draft, in its use of language and information bases, in many sections does not adequately reflect the gravity and complexity of the issues that are addressed. Substantive reviews of the scientific literature and other available data sources do not appear to have been carried out (at least this is not evident in the document). Of the few references that are provided, many are websites (see (2) below), as well as a couple of the government's own (non-refereed) reports.

There is an enormous wealth of peer-reviewed information in journals and books that would have been relevant, supportive and illuminating, and would have immeasurably strengthened the message and its presentation. If such surveys and searches were done, why is none of this effort incorporated or mentioned, even on a selective basis?

(Pg. 13)

Websites as references are more normally encountered in school science projects (where they have replaced the encyclopedia), but in more august and serious documents the only acceptable websites for scientific writing are e-journals, which undertake to maintain some permanence of the posted material, and their academic integrity is ensured by peer-review.

(Pg. 13)

We also wish to note our full support for ALL of Dr. Pip's comments regarding Agricultural sections of the draft LWSB interim report.

Re: Part 2: Issues and Recommendations

The inclusion of a timeframe for the implementation of each of the recommendations or sets of recommendations included in the draft LWSB report, as well as a definition of each of the timeframes (short, medium, long) is an excellent feature of the report.

Is the LWSB the source of all the recommendations in this report? Are any of them borrowed from other reports? If so, this should be acknowledged. (for example, the Livestock Stewardship Report perhaps?) With the exception of mention of mechanisms in the proposed Water Protection Act (in 7.1), no other existing reports, documents are referenced as a source of LWSB recommendations. In recommendations section 13.0, a reference is made to the licensing of the City of Winnipeg Wastewater Treatment Facility; however neither the Clean Environment Commission report or the resulting Environment Act license are specifically referenced either in the text, or in the recommendations that follow.

Section 14.0 – Environmental Licensing Fees attempts to address the issue of the cost associated with changing or amending an environmental license related to improving wastewater treatment systems. Fees associated with the process are suggested to be a barrier to changing practices. The suggested method to address this is to waive “environmental licensing fees for those proponents who apply for an amendment to their license that would minimize the risk of nutrients and other contaminants, reaching water supplies.” This is acceptable, so long as no environmental assessment standards are compromised or relaxed as well. (I also wonder about this; my guess would be that it is not the license itself that is costly, but the preparation of the EIS and the review process itself that would be costly for proponents, no? In which case, reducing the fees wouldn't solve the problem)