Manitoba

Conservation

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September 8, 2003

Mr. Dennis Fewless, Director
Division of Water Quality
North Dakota Department of Health
1200 Missouri Avenue
Room 203, P.O. Box 5520
Bismarck ND 58506 - 5520

Dear Mr. Fewless:

Petition for Reconsideration
North Dakota Pollutant Discharge Elimination System Permit No ND-0026247
North Dakota Department of Health

August 22, 2003

In accordance with Section 28-32-40 (1) of the North Dakota Century Code, Manitoba Conservation respectfully petitions the Department of Health to reconsider its decision to issue NDPDES Permit Number ND-0026247 (the Permit). The reasons for this petition for reconsideration are described more fully below but include errors of fact, errors of interpretation and judgement, and incompleteness. Joint comments from Canada and Manitoba provided on May 21, 2003 to you from Mr. Richard Kellow and additional comments from Manitoba provided on May 28, 2003 to you from myself have not been satisfactorily addressed in the document "Response to Comments for the Devils Lake Outlet Project", dated June 2003 (Response to Comments), and have not been reflected in the Permit. The concerns therefore, remain outstanding. Principal among these are the following:

(1). The Permit allows exceedances of the water quality objective established by the International Joint Commission (the IJC) for total dissolved solids (TDS) to occur at the international boundary at a greater frequency than in the past. Contrary to the justification provided in the Response to Comments, these increases in exceedances will be beyond the normal baseline since modelling conducted for North Dakota by the U.S. Army Corps of Engineers (the Corps) predicts that exceedance of the TDS objective would increase from 9 % of the time to 11 % for the 1450-foot elevation, from 11 % to 12 % for the 1455-foot elevation, and from 8 % to 10 % for the wet future. Moreover, it is a misinterpretation of statistical theory to cite only the confidence interval for one of a number of inputs and not to make similar reference to uncertainties of the combined predicted output. An appropriate statistical model would generate uncertainty figures for all outputs. It is therefore, common in environmental management applications to design projects and to develop

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permits or licenses to ensure, with a high degree of confidence, that exceedances will not occur. Application of this principle to development of the Permit would mean using the upper 95th percent confidence of the predicted modelling outputs to assess compliance with the IJC's water quality objectives. If this more appropriate approach were used, exceedances would be predicted to occur at an even higher rate than predicted by modelling conducted for the State.

(2). The Department of Health has incorrectly interpreted the significance of the IJC's water quality objectives and their intended application. The stated application in the Response to Comments is more appropriate for use with the IJC's alert levels rather than for use with the IJC's water quality objectives. Alert levels are intended to be used as tools to assist in interpreting monitoring data. When exceedances are identified, appropriate agencies may then take necessary actions to investigate and mitigate future recurrences. Conversely, the IJC's water quality objectives are intended to be used in the same manner as state water quality standards and as Manitoba provincial water quality objectives. That is, the IJC objectives are intended to be used to ensure that projects are designed appropriately to avoid exceedances.

(3). The Department of Health has inappropriately judged the project to be in compliance with the Boundary Waters Treaty of 1909 (the BWT). Compliance with the BWT can only be determined by the federal governments of the United States and Canada. We understand that the U.S. State Department, in collaboration with U.S. technical agencies, is currently reviewing BWT compliance issues related to the federal civil works project. Much of this analysis may be applicable to the State-financed project. In any event, federal review of the State project is plainly warranted. We believe that no permit should be issued for this project until all BWT-compliance issues are resolved at the federal level.

(4). It is stated that, because Minnesota and North Dakota have determined that the outlet will not violate state standards, compliance should also be achieved in other downstream jurisdictions. This is incorrect. Manitoba and Canada have stated that, as modelling done by the Corps for the federal and State-financed outlets indicate, IJC water quality objectives will be violated at a greater frequency with both a 100 cfs and 300 cfs outlet relative to the baseline condition.

(5). The Devils Lake outlet will provide an additional source of nutrients to the Lake Winnipeg system, contrary to the commitments in Manitoba's Lake Winnipeg Action Plan. While it is stated in the Response to Comments that a reasonable approach would be to quantify all sources of nutrients to Lake Winnipeg to put the contribution from Devils Lake into perspective, this approach appears to simply justify further pollution. In fact, all major sources of nutrients to Lake Winnipeg have been quantified as part of the on-going work in Manitoba's Nutrient Management Strategy. Importantly, these studies have shown that phosphorus concentrations in the Red River at the international boundary have increased by about 204 tonnes/year relative to the early 1970s. Construction and operation of an artificial outlet from Devils Lake will continue this trend by adding additional phosphorus (and nitrogen) to the injury of Manitoba. Manitoba has asked the IJC's International Red River Board to develop water quality objectives for nutrients at the international boundary to reflect the commitments in the Lake Winnipeg Action Plan (March 5, 2003 letter from myself to Mr. Kellow and Dr. Bach).

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(6). The State's outlet must be assessed on the basis of actual constructed capacity. North Dakota Health must assume that ultimately, the outlet will be operated to convey 300 cfs since this is the specification for construction. On the basis of the constructed capacity, water quality impacts will be even greater at the international boundary than predicted for a 100 cfs outlet.

(7). The issue of biota transfer has not been addressed in the Permit. While it is stated in the Response to Comments that there is no provision in the NDPDES rules to include non-native species, there is also no provision to exclude such considerations. Moreover, most NDPDES permits issued for other wastewater effluents include limits on biological materials such as bacteria. Inclusion of limits for biological materials in such permits is common practice in North Dakota and in similar Clean Water Act Section 402 permits issued elsewhere throughout the United States and therefore, should be included in the Permit. In this regard, the Corps of Engineers in its Final Environmental Impact Statement, dated April 2003 (the Corps' EIS), concluded that the Devils Lake outlet project does entail a risk of transfer of non-native species from Devils Lake to the Red River basin and that biota control facilities need to be included in the outlet design.

It is also important to underscore that the Department of Health overstates the degree of existing connectivity between Devils Lake and the Red River basin. Existing connectivity is simply not comparable to a new and direct hydraulic connection moving up to 300 cfs that would be provided by the State's outlet. Devils Lake and the Red River basin have not been hydraulically connected since European settlement. Most anthropogenic introductions to Devils Lake have occurred since European settlement, especially since the 1940s when the lake was essentially dry. While some other mechanisms exist for movement of non-native biota from Devils Lake to the Red River basin, joint programs are in place between Canada and the United States to diminish or eliminate the human-mediated mechanisms since these are deemed to be unacceptable. Examples of such cooperative programs are the 100th Meridian Project, work of the Western Regional Panel on Invasive Species, and work of the newly formed Mississippi River Basin Panel on Invasive Species. Manitoba participates in these programs along with many U.S. state and federal agencies. Justifying creation of a new and much larger connection on the basis of existing unacceptable mechanisms is entirely inappropriate.

The Response to Comments contains some information on striped bass which warrants challenge. It is inferred that, because striped bass are present in some parts of eastern Canada, they could therefore, inhabit all other parts. This inference is biologically inappropriate given the facts that Canada's land mass is larger than that of the continental United States, that Canadian waters drain into three oceans, that Canada is diverse in terms of aquatic habitat, and that Canada's major watersheds are less inter-connected than watersheds in the United States. Moreover, lack of existing information to suggest that striped bass are not reproducing in Devils Lake may simply be an artifact of the poor quality of the present knowledge of biota in Devils Lake. It is important to note that North Dakota State officials claimed that European zander stocked in the nearby Spiritwood Lake did not survive and likely no longer existed in the State[1] but a specimen was recovered from the lake in June 2000 by an angler. In addition, grass carp (white Amur) stocked in Spiritwood Lake in 1972 were expected to live no more than 15 years. During the last couple of

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[1] Power, Greg, J. and F. Ryckman. 1998. Status of North Dakota's Fishes. ND Game and Fish Dept., Div., Report 27, Jamestown ND.

weeks, grass carp have been identified from Spiritwood Lake that may either be more than 30 years old or progeny of the original stocked specimens. These two recent examples underscore Manitoba's concern with striped bass and other unknown stocked fish in Devils Lake and lead us to conclude that little confidence can be placed in the State's existing biological knowledge of Devils Lake.

On the basis of the above, we respectfully request that the Department reconsider its issuance of the Permit. We also request a hearing on this matter.

Should you have any questions, please feel free to contact me at the above address, by calling (204) 945-7030, or e-mail at dwilliamso@gov.mb.ca.

Sincerely,

Dwight Williamson, Manager
Water Quality Management Section

c: Richard Kellow, Environment Canada
Mark Fisher, Foreign Affairs and International Trade
Dennis Wright, Fisheries and Oceans Canada
Robert E. Roberts, Administrator, U.S. EPA Region VIII
Thomas Skinner, Administrator, U.S. EPA Region V
G. Tracy Mehan, Assistant Administrator, U.S. EPA Office of Water