STATEMENT ON BEHALF OF THE ONTARIO WATER WORKS ASSOCIATION ("OWWA") AND THE ONTARIO MUNICIPAL WATER ASSOCIATION ("OMWA") BEFORE MR. JUSTICE DENNIS O'CONNOR, COMMISSIONER RESPECTING PART II OF THE WALKERTON INQUIRY

STATEMENT ON ISSUE 6 - WATER POLLUTION; SOURCES OF CONTAMINATION

FOR

PUBLIC HEARING 5 SEPTEMBER 6-7, 2001

PRESENTED BY

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INTRODUCTION

Good morning Commissioner O'Connor. I am appearing before you today as a consultant to the OWWA/OMWA.

I will be making a statement to you this morning related to Issue 6 – Water Pollution; Sources of Contamination. As you know, Issue 6 arose from the Commission's original list of Part II Issues released in August 2000 and amended in December 2000.

My comments today are based on a larger report I prepared entitled "The Management of Manure and Non-Point Source Contamination of Water Quality in Ontario." This report was filed with the Commission by OWWA/OMWA in mid-August 2001. That report and the recommendations that follow address a number of issues relating to land use planning,

regulatory measures, fiscal measures, and voluntary/educational measures in relation to agriculture and water quality.

WATER POLLUTION; SOURCES OF CONTAMINATION

The OWWA/OMWA recommend that the Commission adopt the following recommendations in its final report to the Ontario Government:

- 1. Land Use Planning Measures
- 1. That the province provide clear guidelines and policies in the land use planning process for the protection of both source water and drinking water so that land and water resource management are integrated at the local level to minimize non-point source pollution from agricultural activities.

As stated in Section 2 - A of my report, the Goss report notes, "agriculture is recognized as the largest contributor to water pollution caused by runoff in the United States". Goss notes that comparable data for Ontario are not available. However he further notes that it is expected that the costs of regulation aimed at reducing run off from agriculture operations (non-point) would, at the margin, be expected to deliver a greater response than regulatory actions with similar costs aimed at industries causing point-source water quality problems.

The Goss report identifies nine Acts (eight provincial and one federal) that may apply directly or indirectly to farming operations. Of the eight provincial acts, the Ontario Water Resources Act (OWRA) and the Environmental Protection Act (EPA), are the primary legislative authorities for addressing water pollution from agricultural activities. However, both are mainly reactive and not preventive regimes in the agricultural context.

The federal Fisheries Act deals with pollution or other activities in a watercourse that may be harmful to fish. Again this regime is largely reactive and not preventive in nature in the agricultural context.

Only the Planning Act of Ontario provides some opportunity to address in a preventive manner agricultural land use activities as they may impact on water quality before such activities are approved to proceed. In this regard, there has been some experience with nutrient management by-laws in certain

counties and municipalities in Ontario. The experience, to date, has been mixed for a number of reasons including weak legislative authority for the by-laws under existing provincial law, and reliance on municipalities with limited resources and expertise to police the regime.

The Johns report notes that no initiative in Ontario exists to deal specifically with non-point source water pollution and that there are no non-point policies. Further, land-use tools and tax incentives are viewed as weakly integrated with water pollution control efforts.

The province's Nutrient Management Act - Bill 81 (discussed further below) is a step in the right direction. However, at this stage of the Bill's progress it is not clear how this Bill will be effectively integrated with either the province's existing land use planning or regulatory regimes to ensure optimum water quality protection from agricultural activities.

2. That the province provide stringent baseline performance standards and where necessary provide municipalities with the necessary land use planning tools to apply local initiatives such as groundwater protection and nutrient management policies.

The present Planning Act empowers municipalities to create an official plan and zoning bylaw process to facilitate land development and building infrastructure. As such, these planning and development instruments can vary from municipality to municipality on the same watershed. The Province must provide baseline or minimum requirements that cover issues, such as land runoff, that can affect the entire population of a watershed. Initiatives such as groundwater protection and nutrient management policies should not be "add ons" but systematically applied requirements. Again whether Bill 81 - The Nutrient Management Act - will be adequate to bridge both land use and water quality concerns in the agricultural context remains to be seen.

- **3.** As part of the land use planning process, there should be conducted by municipal entities, in partnership with conservation authorities or other provincial entities on a watershed-by-watershed basis, on-going identification of point and non-point sources of pollution:
- Point sources would include manure storage areas, silo areas, etc.

• Non-Point sources would include inadequate soil conservation and drainage practices, and improper or excessive fertilizer application including spreading of manure in winter.¹

From reviewing various reports such as Goss et al and Johns and from my personal experience, it is clear that there is no single entity that has responsibility for addressing all watershed issues. As an example the various conservation authorities, defined by watersheds, act largely in an advisory/educational capacity in the context of water pollution from agricultural activities.

A recent American Water Works Association (AWWA) white paper on total water management made a number of observations that OWWA/OMWA endorse in the Canada-Ontario context. Land and water resources management must be integrated at the local level. There is an urgent need for a unified water management policy under a watershed framework that is based on a rational approach. This would relieve the patchwork of conflicting objectives and jurisdictions at the federal, provincial and municipal government levels, as well as address regional differences.

OWWA/OMWA feel that the Ministry of Environment in conjunction with conservation authorities, municipalities or some newly created agency should be given a greater role in the total management of the watersheds of the province. Certainly, MOE and conservation authorities are established, know the watershed, know the political entities on the watershed and have systems such as stream monitoring stations presently in place. Whatever regime is established, there must be a central authority on each watershed for all watershed-related issues to ensure the ability to work with area municipalities on agricultural land use planning and water quality issues.

2. Regulatory Measures

4. That the MOE maintain the primary lead role in respect of water quality and drinking water protection under the Environmental

¹ Defining the watershed as to the predominance of these sources would aid water supply providers in capital spending for either existing facilities or upgrading of facilities. For example, if the main point and non-point sources of pollution within a watershed were of a particular type, then the water utility might decide to install treatment equipment appropriate to the contaminant. This would also provide the water utility with information on when to sample for specific substances or to prepare for specific events such as heavy rainfalls and potential elevated turbidity levels.

Protection Act, the Ontario Water Resources Act, and Bill 81 - the Nutrient Management Act, 2001 in respect of agricultural pollution.

The MOE should be the primary ministry for regulating water quality parameters in a watershed. Using existing regulations the province should move from a reactive to a preventive role. As my report notes, the OWWA/OMWA advocate a stronger role for the provincial government in establishing mandatory criteria for agriculture waste, similar to the approval program applicable to all municipal and private water and wastewater facilities under the Ontario Water Resources Act.

This should include similar requirements such as Certificates of Approval (C of A) or Permits. Requirements under the C of As or Permits could incorporate present Codes and Regulations outlined in the Goss report, such as, Minimum Distance Separation Guidelines and Best Management Practices.

At this stage of the development of Bill 81 - The Nutrient Management Act, it is not clear how central a role the MOE will play in the future regulation of agricultural activities to protect water quality.

5. That provincial environmental legislation define and regulate such matters in the agricultural context as:

- Agricultural storm water discharge to include only discharge from waste application fields on which manure or wastewater has been applied at an agronomic rate.
- Animal feeding operations including waste application fields.
- Land application areas including waste application fields on which manure or wastewater from a concentrated animal feeding operation (CAFO) is applied. This would include fields under a contractual relationship with the owner or operator of the CAFO.
- Land application areas including land to which manure or process wastewater is or may be applied.

Section 1.5.3 of the Goss report notes that "Ontario has not yet seen the kinds of specialized regulations and targeted guidelines that focus on manure management practices and water quality impairment that have been documented in other jurisdictions. There are no mandatory provincial regulations that require the completion of a nutrient management plan".

At present and, with some exceptions, the only moderating force in play is a variety of voluntary measures and the occasional municipal by-law. These may address such matters as Best Management Practices including Nutrient Management and Minimum Distance Separation (MDS) Guidelines. It is interesting to note that Goss points out "The MDS guidelines are intended to provide a voluntary mechanism to fill the void created by the Environmental Protection Act".

Mechanisms are presently in place under the OWRA approval regime for municipal wastewater treatment plants to develop stream assimilation studies on sensitive streams in order to limit the amount of phosphorous and nitrogen that can be discharged from a wastewater treatment plant. Similar criteria could be applied for agriculture purposes. Acknowledging the different challenges posed by farming activities on provincial waterways, it is not clear the extent to which, if at all, such an approach is contemplated under the new Nutrient Management Bill.

6. Regulations should apply to any livestock operation not just "large" livestock operations or CAFOs where such operations may be significant contributors to pollution of Ontario waterways or groundwater.

The same AWWA white paper, as previously mentioned, and which OWWA/OMWA supports, states that "If a small operation is a significant polluter, then the operation should have to comply with the regulations, no matter what the size."

7. There should be a province-wide prohibition on manure spreading during winter months or during times of adverse weather conditions.

Both the Goss and Johns reports refer frequently to the adverse affect of improper nutrient application. My report notes comments "world-wide" on this practice. It is one of the key elements of any Best Management Practice not to spread manure on frozen bare land and if rain or snowfall is forecast for the ensuing 48 hours.

3. Fiscal Measures

- 8. To assist farmers with compliance or technical assistance in meeting new standards promulgated under regulations developed under Bill 81, or other environmental laws, fiscal measures, including loans, grants, tax incentives, cost-sharing arrangements and other fiscal measures, should be made available.
- 9. Such fiscal measures should be made conditional on implementing non-point source and animal waste management requirements to protect source waters.

The Johns report notes that the most common instruments used to address non-point source pollution are various cost-share or tax incentive arrangements that attempt to subsidize or encourage voluntary implementation of best management practices. She also notes that these "carrots" in conjunction with "sermons" have been the preferred instruments to address non-point source problems.

Any regime of land use and regulatory measures in the agricultural context will have to include a significant fiscal approach to ensure the that the farming community will be able to undertake required and appropriate measures to protect water quality.

4. Voluntary/Educational Measures

- 10. That the province, in conjunction with regulatory requirements, initiate informational, educational, and technical assistance programs directed at the agricultural community on new measures for source water protection. Specific areas should include:
- Minimum distance separation.
- Nutrient management strategy.
- Best management practice. (The Guide to Agricultural Land Use OMAFRA, 1995).
- Proper storage of liquid/solid manure.
- Manure land spreading/irrigation practices.
- Well head protection.
- Procedures for well abandonment.

• Implementation of agricultural multiple barrier approach consisting of at least pollutant source controls, landscape controls, and stream corridor controls.

Programs and information on all the above are readily available but require more intensive promotion.

11. MOE, OMAFRA, and other appropriate agencies should be provided with sufficient technical and financial resources in order to advise/assist farmers to address environmental issues from both a land use and water resource protection perspective.

As a former Senior Environmental Officer with MOE, I carried out inspections of CAFOs with OMAFRA personnel. The purpose of these inspections was to ensure that the operation did not present a current or future potential problem to the environment. The role of the OMAFRA representative was to assist the farm operator in achieving this goal. This program was reactive for the most part, as such inspections often were preceded by complaints received from the public. In many instances, corrective action by the farmer was more expensive than it would have been had a preventive regime been in place at the outset to provide both guidance and direction before construction of facilities such as liquid manure storage areas were undertaken.