

August 31, 2001

The Honourable Dennis O'Connor
Commissioner
The Walkerton Inquiry
180 Dundas Street West
22nd Floor
Toronto, Ontario
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Dear Mr. Commissioner:

**Re: Walkerton Inquiry – Public Hearing No. 4: Source Protection –
OPSEU's Written Submissions Concerning Additional Issues for
Consideration**

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OPSEU is pleased to provide written submissions concerning the additional issues for consideration circulated by the Commission in connection with Public Hearing No. 4. (OPSEU's presentation time did not permit the provision of this information at the hearing.)

OPSEU's submissions represent the distillation of the views of front-line staff of the Ministry of the Environment who are professionally concerned with source protection.

1) How Should the Overall Goal for Source Protection be articulated?

Ministry staff have consistently submitted that an "ecosystem approach" must be used for all environmental issues. So, the overall goal for source protection must be permanent protection of the ecosystem containing the water source. The water source's quantity and quality is dependent on the surrounding ecosystem. Source protection equates to ecosystem protection.

Assuming that the ecosystem is being preserved and protected to the extent necessary to ensure its permanent survival, it is then appropriate to articulate a more precise or secondary goal of source protection. In OPSEU's submission, water sources should be protected to the extent needed to provide water:

- a) in permanently undiminished quantity (any permanent diminishment of quantity being an indicator of undue risk of quantity depletion);
and
- b) of such quality that it meets drinking water standards without treatment. Treatment must be in place as a safeguard, and to deal with contaminant fluctuations. However, and as has been frequently discussed, treatment is an inherently unreliable process that cannot form the only barrier. The source should be protected to the point that the water which it produces is naturally potable. That high standard will best ensure human health in the short term. It is also a standard with long term benefits. Contaminant reductions will be required and this will support ecosystem preservation.

2) Is the scale for planning for source protection different from the scale for implementation (i.e. the watershed as opposed to provincial, municipal or site specific)? Is it practical to have different scales?

There should be a "cascade" of planning and implementation on a diminishing scale through successively subordinate institutions.

At the provincial level, there should be the establishment of a source protection framework including the setting of source protection requirements for subordinate bodies. In addition the province should undertake the monitoring of compliance with such requirements.

At the watershed level, there should be source protection planning in accordance with the provincial framework and requirements. In practice, watershed planning would take place through the roundtable coalition responsible for the watershed management plan. That roundtable (which would include the MOE) should then monitor compliance with the watershed plan by individual municipalities.

At the municipal level, well head protection planning should occur in accordance with the framework set by the watershed management plan.

3) What level of guidance should the province give to those making source protection plans? Principles? Intent of Plans? Should guidance be statutory or in provincial policy?

The province needs to give guidance in several forms.

Statutorily, the province needs to establish the requirement for watershed and well head planning (i.e. that every watershed must have a watershed management plan, that it must be incorporated into every official plan, and that it include well head protection). This should be done through amending the Planning Act to either: a) directly require watershed and well head planning or b) require municipal planning to be “consistent with” provincial policies and then issuing a strong provincial policy statement on watershed and well head planning.

Within that “statutory” framework requiring watershed and well head planning, the province should also establish regulatory requirements. This could either be done through regulations under the Planning Act, or alternately through detailed portions of the provincial policy statement. In either case, the regulatory prescription should include the following:

- the principles to be followed in watershed and well head planning;

- the terms of reference for such plans, which should set out: a) common methodology (so all plans are comparable and connectable) and b) minimum content, i.e. the minimum essential components of a source protection plan (For details, see the answer to Question 4 below).

In addition, the province should issue guidelines. These could be templates showing how to fulfill the minimum content requirements and suggesting the need to justify deviation from those templates.

This three-level prescription for source protection plans is necessary in order to ensure that a commitment to watershed planning is infused into municipal land use planning.

Municipalities (particularly in rural Ontario) do not reliably and across the board have the knowledge, expertise or political independence to make sound independent decisions on source protection issues. Many municipalities are composed of lay councillors who do not have adequate professional staff at their disposal. This can produce a tendency to hire expensive consultants and pass that cost on to developers and builders. Certain expertise can be more cheaply and consistently provided for all concerned through adequate provincial public services.

4) What are the essential components of a source protection plan?

There has been a great deal of work and study done over the years on watershed management plans. That work has been largely unimplemented. It needs to be brought forward and updated. In addition, it needs to be expanded. That work was generally concerned with flood control and natural heritage preservation. There was less emphasis on drinking water source protection, which must now be factored in. Some upper tier municipalities (Kitchener Waterloo and the

County of Oxford) have shown significant leadership in putting together integrated source protection plans.

A source protection plan takes the form of a watershed management plan (including well head protection zones) fully incorporated into official plans and enforced by zoning by-laws. A watershed management plan should include the following:

- appropriate consultation during development of the plan;
- mapping of sources (both surface water and groundwater, including aquifers) to establish the water balance;
- mapping of impacting land use, including calculation of anticipated demand;
- arriving at a hydrological understanding of how current and anticipated land-use will impact on the source;
- formulation of water-taking limits;
- formulation of needed restrictions on new and changing uses including drafting of appropriate zoning;
- policies to encourage improvements in existing uses, including:
 - a land purchase program;
 - encouraging best management practices through funding, remediation and education;
- emergency preparedness and contingency plans;
- compliance monitoring mechanisms;
- regular plan review and updates.

Within such a watershed management plan, there should be provision for well-head protection zones. Well-head protection zones should be required through the planning process and also, in a co-ordinated way, through Certificates of

Approval for waterworks. (Under those Certificates, proponents should be required to propose well head protection zones and be required to submit supportive surface and groundwater mapping. Proponents should also be required to submit a hydrogeological study examining whether any groundwater is potentially under the influence of surface water.)

Well head protection zone planning starts with requirements for the integrity of the design and construction of the well itself. Thereafter, water mapping must be used to establish the outer limits of the well head protection zone. Within that zone, there should be groundwater sensitivity zones which delineate varying degrees of restriction on land uses. When establishing the degree of sensitivity, it is necessary to factor in:

- capture zones, based on water travel time;
- capture zone vulnerability, based on the thickness and composition of the protective geology and the extent to which it has already been compromised by natural intrusions (like ponds) or human intrusions (like wells).

In addition, there is an ongoing need to sample sources within capture zones so as to identify changes in vulnerability.

5. Should planning include guidance or principles for allotment of takings and/or loadings?

Yes. Within any individual watershed or well head, there must be an initial determination of the water balance. This requires current and up-to-date mapping of existing water supply and takings. Where the water balance indicates a potential quantity problem, there should be an assessment of the need for allotments. If additional contemplated takings might affect quantity or quality, then an allotment process must be put into place.

Where the size or location of the proposed allotment could affect the water balance, the Ministry of the Environment must play the lead role in determining acceptability. Where the allotment is within established acceptable parameters and the only question is choice of recipient of the allotment, and where the choice of recipient will not affect the source, such allotment choices could be delegated to municipalities or conservation authorities.

6. What should be included in the provincial groundwater protection policy?

All of the above.

7. To what extent should other land use planning be constrained by regulations, policy, or plans regarding the protection of drinking water sources?

This question has the wrong premise. Environmental planning should not be a constraint imposed after basic planning decisions are made. Instead, source protection planning should be a core part of all land-use planning.

Understanding the need to fully integrate source protection planning into land-use planning is what fuels MOE staff support for a fully integrated planning process. The same institutions should be fully involved in all planning decisions (both environmental and land use). They must be involved directly and accountably and not through external agencies.

An assessment must be made of what entities will be available to participate in the environmental planning process. It can be observed that political boundary changes will likely not be recommended by the Walkerton Inquiry. In other words, municipalities will continue their current land-use planning process. In order to ensure integration, they must also be directly involved in watershed planning. This means that the municipal land-use planning process must be fully infused with the watershed management planning requirement. Existing

statutory schemes and institutions must be invigorated and strengthened, and then directed to do watershed management planning. The goal is to incorporate watershed planning into the heart of the land use planning process, not to create two parallel planning processes.

8. What should be done about existing uses that do not conform to a new source protection plan?

There should first be an assessment whether those existing uses are also non-conforming with other regulatory standards. It may be that they are not conforming with a Certificate of Approval or some other aspect with the Ontario Water Resources Act or other protective legislation. These other regulatory requirements may provide a means for arranging conformance.

In circumstances where the existing use is “legal” but does not conform to a new source protection plan, there need to be a range of available responses. First, the non-conformance cannot be allowed to increase. Expansions of non-conforming uses and deleterious changes to non-conforming uses should be prohibited.

Second, there should be an assessment of the degree of impact of the non-conforming use. If the impact is high and deleterious, there should be expropriation, or compensation for making a required change in use.

If the degree of impact is not that high, there should be a phased in conformance requirement. This can be accomplished through alteration of a Certificate of Approval, through zoning requirements for best management practices or through financial incentives for changed use. Less intrusively, there can be a targeted fostering of voluntary stewardship, accompanied by general public education.

9. Can provincial regulations, standards, or policy prevent competition between local decision makers to attract development and economic activity?

Yes. The province should set minimum standards and then prevent the erosion of those standards by ongoing provincial approval of official plans and major variances, and through maintenance of the right of appeal.

“Races to the bottom” should also be kept in check by full local consultation and education. When municipal constituency groups and the local public understand that a “race to the bottom” is occurring in their backyard, they will assist efforts to prevent it.

At the same time, it should be recognized that there may be tolerable variances in land use between municipalities. First, the source may be less vulnerable in one municipality than in another. If the source is less vulnerable, more development may be permissible without compromising the source. Second, a municipality may take the initiative to aggressively manage the watershed and engage in appropriate well head protection. Within such a robust framework, it may clearly delineate development that, by general consensus, is acceptable. That development may then be permitted to occur, and more quickly than development in other municipalities where the necessary protections are not in place. In this way, it may be possible to foster a “race to the top” whereby municipalities are able to proceed with development only after they have the necessary planning protections in place.

10. Do municipalities require additional powers to protect sources? If so, what powers?

With respect to planning, municipal planning powers are probably sufficient. What municipalities need is the provincial framework, guidance, expertise and monitoring of compliance. They can then exercise their planning powers.

With regard to regulating the use of contaminants, it may be appropriate for the province to clarify the ability of municipalities to pass zoning by-laws limiting contaminant use within land use holdings. Municipalities may benefit from a clarification of their ability to set minimum contaminant use standards (for example, by-laws to control lawn pesticides).

11. What should the federal role in source protection be?

The federal government should encourage provincial frameworks for source protection, and provide funding for that purpose. In addition, the federal government can assist in setting voluntary standards to facilitate the transferability and comparability of plans and statistics.

12. Should this Inquiry make any recommendations regarding the Great Lakes and other great boundary waters? If so, what should they be? How should source protection planning be co-ordinated with or have regard to the regulatory regime for the Great Lakes?

There are two views expressed by the front-line staff of the Ministry of the Environment in response to this question. The first is the view that the Inquiry has enough to do with making recommendations about how the province should address local, municipal and conservation authority obligations.

However, water does not respect human boundaries. The Great Lakes form part of an interconnected ecosystem of surface water, ground water and aquifers. That entire ecosystem is clearly continuous across provincial, state and national boundaries. For example, there are well known problems with contaminant migration in the bedrock from former waste disposal sites near Canada and U.S. borders.

Given this interconnected ecosystem reality, provincial policy statements should require source protection planning to “be consistent with” Great Lakes protection regimes.

It is a continuing hope of the front-line staff of the Ministry of the Environment that these submissions are of use to the Inquiry. Thank you for your attention.

These submissions have been copied to counsel for the Government.

Yours truly,

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TH/ld

c. Peter Manderville