



OSSGA

March 18, 2008

ONTARIO S
& GRAVEL A

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Essential materials for building a s

Mayor Fred Eisenberger and Members of City of Hamilton Council
c/o Kevin Christenson, City Clerk
Hamilton City Hall
(Hamilton City Centre)
77 James Street North
Hamilton, ON L8R 2K3

Dear Mayor Eisenberger and Members of Council:

Re: City of Hamilton Council Resolution dated February 27, 2008

I am writing on behalf of the Ontario Stone, Sand & Gravel Association (OSSGA) and its member companies supplying essential construction materials to the citizens of the province, to express our deepest concerns regarding the Resolution passed unanimously by your Council on February 27. A copy of the text of the resolution is attached to this letter for your reference.

Our understanding is that the application for a Permit to Take Water that is currently in front of the Ministry of the Environment is requesting approval only for the purposes of carrying out hydrogeological testing of the site. The City and the Province will only be in a position to judge the acceptability of any quarry application once the required studies are complete and all of the necessary analyses have been presented. Therefore, it is inappropriate and premature to reference the final land use disposition in the motion at this time. Furthermore, it is inconceivable that the City should expect the government to defer any legitimate testing program that is specifically required when seeking an approval under existing legislation.

The OSSGA, with the assistance of our professional technical advisors, prepared in February 2005 a response (attached) to the Technical Experts' Committee (TEC) report dated November 2004 advising that pits and quarries are "*threats of provincial concerns*" was a misinterpretation of the scientific basis of the risk assessment model. The Ministry of the Environment Director responsible for the drinking water source protection program responded to our letter of July 2005 (attached) with a letter of his own (Ian Smith letter dated August 11, 2005 attached) confirming our professional's opinion that pits and quarries should instead be treated as areas of "*augmented vulnerability*" in the use of risk assessment approach.

Subsequently, in the *Draft Issues Evaluation and Threats Inventory Module 5* (MOE; October 2006), providing guidance for the preparation of Source Protection Technical Studies, the Ministry put forward a revised listing of "threats of provincial concern" (Section 3.1, Table 1; copy attached). Pits and quarries are **not included** in this threats list.

Therefore, ***pits and quarries are not "threats of provincial concern" in the context of the TEC advice in its report to the MOE.*** We continue to receive assurances from MOE program staff, as recently as this past week that this will be carried through to the technical regulations that are in preparation.



ONTARIO STONE, SAND
& GRAVEL ASSOCIATION

Currently, any application for the establishment or operation of a pit or quarry, or any site testing required to support the application, is carried out under a comprehensive set of provincial legislation¹ that fully addresses the potential effects on drinking water sources, including any necessary mitigation, monitoring and contingency plans. Competent technical experts within provincial Ministries review these applications and will only recommend approval if they are satisfied that drinking water sources are adequately protected. As a result, we are confident that parts (a) and (b) of the City's resolution requesting that the Provincial Government consider the potential effects of the application on the Carlisle drinking water system have been and will be addressed within the framework of the existing legislation.

Part (c) of the City's resolution requests that "*before any provincial permits or approvals are issued for the proposed St. Marys Quarry, the province should require a formal review by the Halton/Hamilton Source Protection Authority, as part of the local source protection process*". We suggest that this is both unnecessary and unwarranted given the above, and also respecting the Province's position² that this is not the role or mandate of the Source Protection Authority.

In closing, the OSSGA and its members have fully supported and participated extensively in the establishment of the *Clean Water Act*, knowing that the extraction and processing of aggregates that is essential to the economy is also fully compatible with the protection of drinking water sources. However, we have expressed concerns to various Ministers of the provincial government on several occasions that the time needed to develop Drinking Water Source Protection Plans should not be used to delay or frustrate legitimate approvals or operations, where the legislation already exists to ensure that drinking water sources are adequately considered and protected. We have received assurances from the government that this is not the intent of the new legislation.

We would be pleased to discuss this matter in further detail with you or City staff at your convenience.

Sincerely
ONTARIO STONE, SAND & GRAVEL ASSOCIATION

Carol Hochu, President

Copy to: Hon. John Gerretsen, Minister of the Environment
Hon. Donna Cansfield, Minister of Natural Resources
Mr. Ian Smith, MOE

¹ Foremost among these are the *Aggregate Resources Act*, the *Ontario Water Resources Act*, the *Environmental Protection Act*, and the *Technical Standards and Safety Act*.

² Confirmed with Ian Smith, Acting Assistant Deputy Minister, MOE; March 12, 2008.

CITY OF HAMILTON - NOTICE OF MOTION
Council Date: February 27, 2008
MOVED BY COUNCILLOR MCCARTHY

Whereas the Carlisle groundwater-based municipal system has a well documented history of both quantity and quality problems, in staff and consultants' reports,

And, Whereas there is a Permit to Take Water (PTTW) application for a pilot test of the proposed mitigation system for a proposed Flamborough quarry before the Ontario Ministry of the Environment

And, Whereas the proposed quarry development sits within the recharge area and the two year Time of Travel (TOT) for the Carlisle municipal system's Wellhead Protection Area

And, Whereas the final land use disposition for the proposed quarry development is to flood the quarry and to make a lake with potential for surface-to-groundwater-issues

And, Whereas the Ontario Clean Water Act is premised on the pre-cautionary principle and the recharge areas and wellhead protection areas in municipal systems are the first priority for protection and implementation

And, Whereas, in November 2004, the Ontario Minister of the Environment's Technical Experts' Committee identified quarries as a land use activity that threatens drinking water sources and are sufficiently serious to be of provincial concern that the Committee recommended they and their final land use be assessed according to new municipal well standards and/or restricted within the 5 year Time of Travel to a municipal wellhead protection area

And, Whereas Justice O'Connor in his inquiry into the Walkerton tragedy wrote a report which recommended that the Provincial Government establish multi-barrier systems to protect drinking water, including local source protection planning, and whereas the Halton/Hamilton Source Protection Committee is just beginning its work

And, Whereas, Hamilton Public Health Services notified the Ontario Ministry of the Environment in October 2007 regarding concerns of a reasonable and probable risk of a public health concern in the form of adverse groundwater quantity and/or quality impacts and whereas these concerns will only be considered satisfied when the details have been included and implemented in a revised Hydrogeological Work Plan for pump tests (and a PTTW) to assess a proposed Groundwater Circulation System (GRS) for the proposed Flamborough quarry site .

And, Whereas the Environment Commissioner of Ontario cited this proposed development in his 2006/2007 Annual Report in December 2007 and called on the Province to reconcile its conflicting priorities between aggregate extraction and environmental protection and to screen out proposals with identified natural heritage or source water protection values

And, Whereas the Carlisle area falls within the Greenbelt Plan and said Greenbelt Plan specifically prohibits new and extensions to existing lake-based water systems

And, Whereas City of Hamilton residents in the communities of Carlisle, Freelon, and Mountsberg, along with our neighbours in Milton, through Friends of Rural Communities and the Environment (FORCE) and Environmental Defence, have started a provincial advocacy campaign regarding their concerns about potential risks to their drinking water,

Therefore Be it Resolved,
That the Council of the City of Hamilton:

- (a) bring to the attention of the Provincial Government its concerns regarding potential adverse impacts on the Carlisle groundwater-based municipal drinking water system
- (b) request the Provincial Government, through the Premier and the Ontario Minister of the Environment, to fully consider the potential ramifications of the proposed development and
- (c) before any provincial permits or approvals are issued for the proposed St. Marys Quarry, the province should require a formal review by the Halton/Hamilton Source Protection Authority, as part of the local source protection process.

Excerpts
**Watershed-Based Source Protection Planning
A Threats Assessment Framework**
Technical Experts Committee Report to the Ministry of the Environment
November 2004

Review Prepared By: APAO Joint Environment/Land Use Committee
February 2, 2005

Contributors: Steve Hollingshead, P. Eng., Principal, Gartner Lee Limited
Phyllis McCrindle, P. Geo., Hydrogeologist, Golder Associates
J. Richard Murphy, P. Eng., V.P., Conestoga-Rovers & Associates
Jason Warren, Environmental Manager, Dufferin Aggregates

Recommendations 1 and 2. There is confusion here between *threats* and *vulnerability*. The report adopts the source-pathway-receptor model for risk identification. "Threats" are the sources of contamination or impact in the model, while "vulnerability" is related to the pathway. The Committee's conclusion that "permissive conduits", including pits and quarries, are *threats* is an incorrect and illogical interpretation of the source-pathway-receptor risk identification model. They may, however, represent *vulnerabilities* related to the pathway (i.e., the excavation of a pit or quarry could create a vulnerable pathway to a drinking water aquifer), but there must also be some sort of source or *threat* associated with the vulnerability to create a risk.

Recommendations 6, 7 and 8. A land use inventory is not limited to identifying threats. In some cases it will identify pathways (vulnerability) instead. In the case of pits and quarries, the land use (excavation) may create a vulnerable pathway, but the excavation itself is not necessarily a threat because pits and quarries are not significant sources of potential drinking water contaminants.

Recommendation 27. "*Human-made Pathways to the Aquifer*", including pits, quarries and mines, are listed as a *threat*. Considering the "source-pathway-receptor" concept that is fundamental to the recommended approach, the *threats* are equivalent to the *sources*. Pits, quarries and other depressions are not in themselves threats (sources). Rather, they fit the definition of "pathway"– "*Set of physical conditions that allow the threat (if present) to travel to the drinking water source*". (To see how incongruous it is to call a pit or quarry a threat, try substituting "pit" or "quarry" for the "threat" in the above definition!)

In Tables 3.1 and 5.1, the "Primary Concern" for *Human-made Pathways to the Aquifer* is specifically defined as "*vulnerability – direct pathways to current or future potential drinking water*". Clearly, by this definition alone they are obviously mis-classified as threats rather than vulnerabilities, and should correctly be dealt with in conjunction with

the Vulnerability Analysis detailed in Section 4 of the report, and specifically in association with the SWAT analysis detailed in Recommendations 53 through 55 and/or the aquifer vulnerability analysis discussed in Recommendations 58 through 61.

Landforms, whether natural or man-made, should be consistently examined for vulnerability. The Committee has not recommended that natural features that represent direct pathways to drinking water aquifers (e.g., wetlands, water bodies, karstic terrain, etc.) be classified as a threat. (There are numerous examples of wetlands and other natural depressions being vulnerable pathways, as recognized by the Committee in Recommendation 91, page 61.) Therefore, there is no reason to treat pits and quarries any differently in the risk assessment framework.

We strongly urge the MOE to correct this critical error in the application of the source-pathway-receptor risk identification model by:

- Restricting the definition of "threats" to only those things that actually represent a source of contamination or impact on drinking water supply; and
- Classifying *Human-made Pathways to the Aquifer* as "pathways" and/or "vulnerabilities" in the risk assessment framework, not as threats.

This is a very important distinction to the aggregate industry, which may use vulnerable lands and create/enhance pathways, but do not necessarily represent a threat if there is no significant groundwater extraction or chemical use. There are very few examples of contamination of drinking water supplies due to pit and extraction in Ontario. It will be misleading and damaging to the industry to specifically and mistakenly single out pits and quarries as "*Threats of Provincial Concern*" in this fashion.

Recommendation 70. "*Human-made Pathways to the Aquifer*" should be removed from Table 5.1, since it is a vulnerability, not a threat, as discussed above. Furthermore, there is no reason for associating pits and quarries with a 25-year TOT/SWAT when other industrial activities and stormwater management activities include only 5-year TOT.

"*Human-made Pathways to the Aquifer*" should be removed from Table 6.2, since it is a vulnerability, not a threat, as discussed above. Furthermore, we object to the suggested approach for managing future risk by restricting new pits and quarries in a five-year TOT wellhead protection zone. On what basis has the Technical Committee determined that pits and quarries represent both threat and vulnerability in any combination that represents a high risk? Can the Committee provide any documented examples of a pit or quarry impacting the safety of a public drinking water supply? In fact, in some municipalities, well fields have been purposely constructed in or near pits and quarries. This misleading reference should be removed from the document, even if it is simply a hypothetical example.



Aggregate Producers'
Association of Ontario

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July 3, 2005

Mr. Ian Smith, Director
Drinking Water Program Management Branch
Ministry of the Environment
18th Floor 2 St. Clair Avenue
Toronto, ON
M4V 1L5

Dear Ian,

Thank you for your positive response to the concern the APAO highlighted in the Technical Committee report on Source Water Protection. As you know, our members were deeply troubled with the proposed classification of pits and quarries as a "*Threat of Provincial Concern*". In the opinion of experts in the industry, aggregate extraction can result in enhanced vulnerability, but not necessarily in a threat.

Your telephone response gave us the reassurance that, at this juncture in the development of the Provincial Source Water Protection program, the Ministry of the Environment is assured that:

- a) the mere existence of a pit or quarry is not a threat to the protection of source water;
- b) pits and quarries will be regarded as entities that have augmented vulnerability and thus warrant heightened consideration when contaminants are also present, such as the storage of fuel; and
- c) pits and quarries are not considered to be an automatic threat to the quantity of source water.

Would you be kind enough to confirm the above in a letter to me, in order that our members may discuss with municipalities and their conservation authorities this reappraisal of the recommendation in the Technical Committee report?

Again, I thank you for addressing this concern amongst the many issues you are stick handling in developing this essential program.

Respectfully,

Peter White, MCIP RPP
Environment and Resources Manager
APAO

Cc's Chair of the Board, President, Water Advisor



Ministry of
the Environment
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Management Branch
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Ministère de
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Direction de la gestion des programmes
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August 11, 2005

Mr. Peter White, MCIP RPP
Environment and Resources Manager
Aggregate Producers' Association of Ontario
365 Brunel Road, Unit 2
Mississauga, ON L4Z 1Z5

Dear Peter,

Thank you for your letter of July 3, 2005. Please accept my apologies for my tardy response.

I am writing as requested to confirm that at this time we are viewing "pits and quarries" as "augmented vulnerability" in the development of the methodology for assessing drinking water risks. The methodology for the risk assessment process will of course be prescribed in Regulation to complement the anticipated Act this fall. It is my belief at this time that consultations on some of these technical considerations will be undertaken in the late fall or early winter. I look forward to discussing this consideration with you then.

Yours,

A handwritten signature in black ink, appearing to read "Ian Smith", written over a white background.

Ian Smith
Director
Drinking Water Program Management Branch

cc: Catherine Brown, Director, Strategic Policy Branch, IEPD
Joan Andrew, ADM, Integrated Environmental Planning Div.

Table 1: Drinking Water Threats of Concern

(Source: Draft Issues Evaluation and Threats Inventory Module 5; MOE; October 2006)

DIRECT INTRODUCTION

Where activities result in direct loadings of drinking water contaminants into source water.

- Sewage treatment plant effluent
- Sewage treatment plant by-passes
- Industrial effluents

LANDSCAPE ACTIVITIES

Where current and historical landscape activities introduce landscape loadings of drinking water contaminants.

- Road salt application
- De-icing activities
- Snow storage
- Stormwater management systems
- Cemeteries
- Landfill
- On-site septic systems
- Organic soil-conditioning
- Septage application
- Hazardous waste disposal
- Liquid industrial waste
- Mine tailings
- Biosolids application
- Manure application
- Fertilizer application
- Pesticide / herbicide application
- Historical activities – contaminated lands

STORAGE OF POTENTIAL CONTAMINANTS

Where commercial quantities of potential contaminants to drinking water are stored, presenting the risk of introduction through containment leaking or failure.

- Fuels / Hydrocarbons
- DNAPLs (dense non-aqueous phase liquids)
- Organic solvents
- Pesticides (of concern to drinking water)
- Fertilizers
- Manure

