



Gravel Watch Ontario's Recommendations On Ontario's Provincial Policy Statement 2005

By Gravel Watch Ontario, October 22, 2010

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Executive Summary

Ontario's Ministry of Municipal Affairs and Housing (MMAH) is reviewing the Provincial Policy Statement (PPS) 2005 and has asked for comments on this policy statement.

Gravel Watch Ontario (Gravel Watch) welcomes this opportunity to comment on the PPS. Gravel Watch is a provincial coalition acting in the interests of residents and communities to protect the health, safety, quality of life of Ontarians and the natural environment in matters that relate to aggregate resources. In light of our experience with the PPS 2005, we wish to contribute the following comments on this policy.

Due to Gravel Watch's central interest in aggregates (primarily sand, stone and gravel), the comments given here concentrate largely on PPS's Section 2.5 on *Mineral Aggregate Resources*. Our comments are organized around the subsections of 2.5. For most of these subsections, we list our concerns regarding the subsection and our corresponding recommendations.

Introduction

This submission is a response to the request by Municipal Affairs and Housing (MMAH) for comments on the Provincial Policy Statement (PPS) 2005. Gravel Watch Ontario (GWO) welcomes this opportunity to participate in this process of reviewing public policy. Gravel Watch is a province-wide coalition acting in the interest of residents and communities to protect the health, safety, quality of life of Ontarians and the natural environment in matters that relate to aggregate resources.

Gravel Watch agrees with the PPS 2005's statement that: "The long-term prosperity and social well-being of Ontarians depend on maintaining strong communities, a clean and healthy environment and a strong economy."

Background

To set the stage for Gravel Watch's issues and recommendations for PPS, we will first give related background, by reviewing concerns, documents and activities related to aggregates in Ontario.

Use of aggregates. Aggregates are the most used mineral in the world, used in much higher tonnage than coal or oil. Ontario produces approximately 170 million tonnes of aggregates per year. This translates to approximately 14 tonnes per person per year, which is one of the highest consumption rates in the world. Aggregates are used mainly for roads and for construction.

Environmental and economic impacts. The use of aggregates in roads literally paves the way for increasing car and truck travel, which are a primary source of Green House Gases and smog. Worldwide, the manufacture of cement, from limestone (a kind of aggregate), produces roughly 5% of human produced Green House Gas [GHG]. Urban sprawl is based on cheap, available aggregates, for example, for foundations and driveways. Pits and quarries endanger ground water, by exposing the water table to potential spills. For example, the hundred year old Guelph Dolime quarry has recently breached the aquitard (underground dam) that had, up to that time, protected the city's water supply from contamination [Dolime]. In principle wetlands are protected from extraction of aggregates but too often this protection is ineffective.

Gravel trucks are extremely heavy (often over 25 tonnes) and consequently cause significant road damage. Pits and quarries, which are commonly in operation for many decades, occupy and cause loss of farm land.

Pits and quarries cause significant pollution and negative impacts on communities, such as noise, dust, truck traffic and consequent loss of property value, as well as endangering water wells. By law many of these negative impacts are supposed to be mitigated, but in too many cases, this mitigation is not carried out.

Balancing the load. Extraction of aggregates produces negative environmental and economical impacts, but it also has important economic value. The key question is how to balance their negative impacts with their economic value. Mark Winfield's paper on *Rebalancing the Load* [Rebalancing] is the definitive work regarding this question. The question is not: "*Do we need aggregates?*" Of course we do. The question is: "*How do we use aggregates in a sustainable manner?*"

Economic value. Aggregates are a high volume, low value commodity. *High volume* means about 170 million tonnes extracted per year in Ontario with one of the highest per capita consumption rates in the world. *Low value* means only about \$8.00 per tonne [CritiqueGW]. The value (really the price) is so low that road building and construction have little incentive to conserve this important, non-renewable resource.

The economic basis of the industry is digging aggregate from the earth and selling that aggregate for an average of about \$8.00 per tonne. Ontario's annual value of the extracted aggregate is around \$1.36 billion dollars which is computed as 170 million tonnes times \$8.00 per tonne. (This translates to \$1.6 billion in terms of GDP.) The figure \$1.36 billion (or GDP \$1.6 billion) is small (less than half a percent) compared with Ontario's GDP which is \$493 billion [CritiqueGW].

Multinational companies such as Lafarge (France), Holcim (Switzerland) and Votorantim (Brazil) apparently extract most of the aggregates in Ontario.

Social conflict. In its role as a sounding board for concerns about aggregates in Ontario, and through its constituents, Gravel Watch is aware of a deep discontent regarding the aggregate industry. There are many people who feel that the industry is not taking care of the land and is not properly carrying out rehabilitation. There are many people who feel that Ontario's laws and policies (and their enforcement) are ineffective in protecting environmental and social values against the industry's demands for aggregates.

Approval process. The approval process, whereby land is zoned and licenced for extraction is particularly considered to be inappropriate. During the last year in Ontario, there have been at least four massive "fights" of citizen groups against large aggregate companies attempting to block what the citizen's feel are inappropriate new pits and quarries. Generally, each of these fights has had a price tag of over a million dollars (expense of company and citizens together). The citizen's funds come from their pockets or their own fund raising. The company's funds are the "cost of doing business". Clearly these fights are a tragic waste of money. It is not clear that the eventual decisions are well made. Too often, the winner is the party with the deepest pockets. Smaller fights are taking place across the province, with smaller but just as painful price tags and just as disillusioned citizens.

Scarcity. There is no clear evidence that there is a scarcity of aggregates in Ontario. There is a SAROS (State of Aggregate Resources Ontario Study) paper, paper 5 by Golder, titled *Aggregate Reserves in Existing Operation* [SAROSMNR]. This title seems to suggest that the paper surveys all kinds of aggregates in existing pits and quarries. However the paper surveys only quarries (not pits), limestone/dolostone (not other aggregates), the Greater Toronto Area market (not other markets such as Kitchener/Waterloo or Ottawa) and "high quality" aggregate (not other useful grades). The Gravel Watch Paper *Review of Golder SAROS Paper 5 On Reserves of Aggregates in Ontario* states that "*Gravel Watch feels that some of the data and conclusions of the Golder Paper must be viewed with skepticism, due to inaccessibility to the underlying data and due to extensive narrowing of the focus of the research. The Golder Paper does not present or reference figures on the rate of consumption of aggregates, and therefore any statements it makes about rates of depletion or about abundance seem speculative.*"

There is no paper or analysis that reasonably analyzes the supply and demand of aggregates in Ontario. Hence the Provincial Policy statement should not be based on the idea that there is or is not a scarcity of aggregates.

At the same time, it is clear that aggregates are a non-renewable resource. It is also clear that potential pits and quarries are increasingly being constrained by environmental and community concerns. Hence it is only reasonable that the PPS should encourage the conservation of aggregates. It should encourage more efficient use of aggregates in roads and construction. As discussed before, the challenge is for the PPS to balance economic versus environmental/social considerations.

Role of PPS in aggregates. The PPS sets the framework for how pits and quarries are controlled and determines the terminology used for discussing them. Some of the main ideas in the PPS that concern Gravel Watch are as follows:

- 1) **No need to show need.** PPS Section 2.5.2.1 states that there is no need to show need of a proposed pit or quarry. Gravel Watch believes that it is only common sense to consider the need for a pit or quarry, because aggregates are a non-renewable resource whose use should be carefully planned and considered using all available knowledge, including “need”.
- 2) **Interim use of land.** PPS Section 2.5.4 states that extraction of aggregates is an *interim* use of the land. From Gravel Watch’s point of view, they are not interim. They exist much longer than “permanent” uses such as strip malls. Ontario pit licenses are granted in perpetuity, with no “sunset clause.” The Guelph Dolime quarry is over 100 years old. In the February 2009 final report of the JART (Joint Agency Review Team) reviewing the application for a new quarry by Nelson Aggregate, they state: “JART does not agree with the MHBC Planning report reference to the proposed quarry as an ‘interim land use’. Given that extraction and subsequent rehabilitation of a quarry can take several decades, it could be considered a permanent land use (in the context of planning policy).” (Executive Summary, page 6) Clearly, pit and quarries are not interim uses of the land.
- 3) **Close to market.** PPS Section 2.5.2.1 states that: “*As much of the mineral aggregate resources as is realistically possible shall be made available as close to markets as possible.*” Gravel Watch takes the position that close to market (CTM) is not a sustainable policy in that it exhausts aggregates nearby markets, thereby leaving only “far to market” resources for future generations. SAROS paper 2 surveys jurisdictions around the world and finds none like Ontario’s CTM [CritiqueGW]. CTM tends to rule out the use of efficient forms of transport such as trains and boats, which seems short sighted.

Gravel Watch believes that the above three concepts in PPS tend to make gravel cheaper and more available, thereby encouraging increased consumption. Conversely, we believe that the concept of sustainability strongly suggests that we should be consuming less and using less.

SAROS. The Ontario Ministry of Natural Resources (MNR) created the SAROS (State of Aggregates Resources Ontario Study) project to produce information for rational planning of the future of the aggregate industry [SAROSGW, SAROSMNR]. Gravel Watch is pleased to serve on SAROS’s advisory committee and on its panel of experts. MNR commissioned six consultancies to write six SAROS papers on topics regarding aggregates. MNR wrote a *consolidated* report summarizing the six reports. Gravel Watch wrote a critique of MNR’s consolidated report, as well as a review of SAROS paper 5.

Review of SAROS. Tonya Markvart was commissioned by Gravel Watch to review the six SAROS papers. Markvart’s review states: “*Critical problems in the SAROS approach and methodologies diminish the capacity of the study to inform strategic planning and to contribute to sustainable aggregate resource management. The MNR and the consultancies that produced the six papers did not adopt a sustainability-based approach to assess the state of the aggregate*

resource. The MNR did not clarify the process by which SAROS will inform strategic planning, including any opportunities for public participation in this process. Finally, the conclusions and recommendations of the six papers too often rest on inaccurate and partial data. The consultancies should have adopted cradle-to-grave (life-cycle) or ecosystem-based methodological approaches. Instead, the methodologies applied were oriented towards generating findings that primarily address industry-economic concerns. Consequently, subsequent strategic planning informed by SAROS may give inappropriate priority to industry-economic interests at the expense of other significant economic, social and environmental stakeholder concerns”.

Markvart further states: “As SAROS stands now, the six papers may serve to protect and enhance the current haulage-based legislative framework that governs aggregate resource management in Ontario – at the expense of other policies that aim to protect communities and the environment from the adverse impacts of aggregate extraction. This legislative framework is comprised of some firmly entrenched norms in aggregate extraction practice, including, among others, (a) ready access to aggregate resources close to market; (b) a preoccupation with ensuring supply to meet all anticipated demand as opposed to conservation and efficient resource use; (c) industry-generated consumption projections that illustrate a shortage of supply; and (d) poor rehabilitation practices.”

Conservation and sustainability. Gravel Watch believes that the PPS should explicitly encourage monitored and decreased use of non-renewable resources such as aggregates. As the PPS currently stands, it seems to encourage increased use of aggregates. The PPS should take a sustainability approach as suggested by Markvart and should encourage the decreased use of aggregates.

Water. This submission on the PPS by Gravel Watch concentrates on aggregates, because aggregates are the main focus of Gravel Watch. At the same time we recognize that water is a central concern for life, for the environment and for society. The aggregate industry impacts water in many ways, such as exposing the water table to possible contamination, producing dirty water from clean water in washing gravel, modification of the water table, modification of the flow of ground and surface water (notably when de-watering quarries), inappropriate draining, spills, etc. These and related issues such as damming and ponding of water deserve thorough and ongoing scientific investigation. Aggregates are used extensively in matters that impact water, including paving during construction. Gravel Watch urges that the PPS be updated to better deal with such water issues.

Climate change. Gravel Watch hopes that the revision of PPS will consider climate change and the many ways that climate is reflected in aggregates and their extraction. Issues about and suggestions for an over-arching policy on climate change are presented in some detail below.

Implementation. Gravel Watch understands that the success of the PPS lies in its implementation. Our members have experienced many instances where the decisions made by the government did not appear to be consistent with the PPS and its vision; rather, we feel that the PPS was interpreted in a narrow or biased manner. We hope that our recommendations will clarify the PPS to help avoid such difficulties.

This concludes the background for our submission. We will now present our issues and recommendations.

Issues and Recommendations for PPS

Table 1 summarizes Gravel Watch's issues regarding the PPS along with our corresponding recommendations. With each issue, the table lists the number of the related question asked by the Ministry Municipal Affairs and Housing (MMAH) in their call for comments on the PPS. The rest of our submission follows the organization given by the table, which is generally ordered according to the Subsections of part 2.5 of the PPS.

Our comments are focused on PPS Section 2.0 *Wise Use and Management of Resources*, largely Subsection 2.5 *Mineral Aggregate Resources* and Subsection 2.3.5, *Removal of land Prime Agricultural Areas*.

(Gravel Watch recognizes that all policies of the PPS are intended to be cross-referenced with no implied priority among the policies, as stated in PPS Part III, *How to Read the PPS*).

Table 1. Gravel Watch Issues and Recommendations Regarding Sections of the PPS

Issue	MMAH Question #	PPS Section #	Gravel Watch Recommendation
1. Long-term use	2	2.5.1	Clarify to include long term protection for <i>in situ</i> aggregate uses vs protection for aggregate extraction.
2. Close to market (CTM)	3	2.5.2.1	Remove reference to CTM.
3. Demonstration of need	4	2.5.2.1 Cont'd	Change to require a demonstration of need for this non-renewable resource.
4. Minimizing impacts & considering cumulative impact	2	2.5.2.2	Part 1. Clarify “minimize” by quantifying social and environmental impacts. Part 2. Change to require consideration of the cumulative impact of multiple aggregate operations.
5. Conservation and recovery	2 & 3	2.5.2.3	Remove or clarify meanings of the words “conservation” and “recovery”.
6. Protection from development and activities	4	2.5.2.4	Add that the protection of aggregate resources should be reciprocal with protection of other existing resources and land uses so as to avoid incompatibility caused by extraction.
7. Existing operations exempted from Planning Act	4	2.5.2.4 Cont'd	Change to bring into conformity all mineral aggregate operations under the Planning Act.
8. Ceased aggregate operations	3	2.5.2.4 cont'd	Remove this part of Section 2.5.3.4. It is redundant as it is covered in 2.5.2.5.
9. Rehabilitation	2	2.5.3	Refine with monitoring, reporting, enforcement, penalties.
10. Interim land use	3	2.5.3.1 cont'd	Remove the term “interim” or support by a sunset clause for operating licenses that reflects the meaning of “interim”.
11. Rehabilitation on non-designated lands	4	2.5.3.2	Modify to include rehabilitation of pits on crown as well as private lands.
12. Extraction in prime agricultural areas	4	2.5.4.1	Change to state that priority be given to preserving prime agricultural land and avoiding aggregate extraction. Also revise 2.3.5.1b
13. Wayside pits & quarries	4	2.5.5.1	Revise to require licence for wayside pits & quarries.
14. Climate change impacts	4	2.1	Initiate a policy to minimize climate change impacts by controlling aggregate extraction to avoid further degradation of natural features.

Issue #1. Long-term use

Gravel Watch's issue #1 relates to:

Policy 2.5.1 *Mineral aggregate resources shall be protected for long-term use.*

Gravel Watch comments. This policy for mineral aggregate resources needs clarification as to the meaning of the terms “protection” and “long-term use”. Currently this policy appears to mean “protected for extraction” at the exclusion of protection *in situ* (in its natural position) with its many benefits. It must be emphasized as stated in Policy 2.0, *Wise Use and Management of Resources* that protection of natural heritage, water, agriculture, cultural heritage and archaeological resources is of equal or of greater value than the protection of mineral aggregate resources for extraction.

The premise of Policies 2.5.1 and 2.5.2 is that there is a shortage of licensed reserves. The MNR's SAROS Paper 5 (*Aggregate Reserves in Existing Operations*) does not provide evidence of a shortage of aggregates. Gravel Watch's review [ReviewGolder] of the SAROS paper 5 by Golder concludes that: “*Gravel Watch feels that some of the data and conclusions of the Golder Paper must be viewed with skepticism, due to inaccessibility to the underlying data and due to extensive narrowing of the focus of the research. The Golder Paper does not present or reference figures on the rate of consumption of aggregates, and therefore any statements it makes about rates of depletion or about abundance seem speculative.*” Paper 5 did not analyze the reserves of essential aggregate products such as sand and gravel. Gravel, in many cases, is substituted for high quality crushed stone in concrete and asphalt. Generally the concept of a shortage of aggregates in Ontario is questionable.

Gravel Watch Recommendation #1: Modify 2.5.1 to state: “Mineral Aggregate resources shall be protected for their long-term *in situ* economic, environmental and social benefits as well as for their economic need for extraction.” Consideration needs to address the protection and preservation of natural heritage, water, agriculture, cultural heritage and archeological resources that are dependent on *in situ* aggregate resources.

Issue #2. Close to market

Gravel Watch's issue #2 relates to:

Policy 2.5.2.1 *As much of the mineral aggregate resources as is realistically possible shall be made available as close to markets as possible.*

Gravel Watch comments. This close to market (CTM) subsection of the PPS effectively precludes other modes of transportation such as railroads and boats apart from truck transport (which uses government subsidized roads and highways). Consequently, the CTM approach overrides the environmental protection of sensitive natural heritage resources in Ontario's widely developed southern region.

While MNR's SAROS (Status of Aggregate Resources in Ontario Study) Consolidated Report suggests that CTM is critical, Gravel Watch has questioned the validity of this claim. See Key Finding #22 in [Gravel Watch Critique of SAROS, 2010](#) [CritiqueGW].

MNR's SAROS Paper 2 includes the following conclusion which we will comment on:

MNR Key Finding #22: *Shifting away from close to market policy would require significant government intervention, including market interventions, capital investment, new infrastructure, and overriding municipal land use controls.*

The Ontario mining industry, as opposed to the aggregate industry, has developed a system of rail and boat transport for bulk materials such as ore minerals and slag without depending on government subsidies. The aggregate industry should be encouraged to adopt similar modes of transport more benign to the natural and social environments and less dependent on government subsidies.

Regarding the CTM issue, SAROS Paper 2 considered 15 jurisdictions, namely, Australia, Cayman Islands, 7 European countries (including UK) and 6 states from the USA. It showed that Ontario is unique in explicitly demanding extraction of as much aggregate possible as near to market as possible. Most of these 15 jurisdictions had no explicit "close to market" policy but instead allowed market forces to determine the sites for aggregate exploitation. Two of these jurisdictions, Cayman Islands and New Zealand favour "far to market" (the opposite of "close to market") to protect their natural environment. The only jurisdiction that approximated Ontario's "close to market" strategy is the UK, but its strategy is relatively weaker in stating that "where feasible, new sites should be guided to locations close to markets".

From the evidence in SAROS Paper 2, it seems reasonable to conclude that if Ontario repealed its "close to market" strategy, the industry would simply revert to dealing with market forces as is the case in other jurisdictions. There is no reason to expect a need for "significant government intervention", as finding #22 claims. The alarmist nature of finding #22 seems biased toward supporting the current PPS "close to market" position --- without considering the evidence in Paper 2. Finding #22 is confusing in that it implicitly equates (1) Ontario's particular PPS "close to market" requirement with (2) the obvious fact that aggregate producers naturally tend to serve close markets for economic efficiency, whereas these two are not at all the same.

Gravel Watch's position is supported by the Environmental Commissioner of Ontario, Gordon Miller: *"Conflicts with other land uses and community interests are heightened because the PPS prescribes that aggregates should be extracted as close to market as possible. The inherent conflicts between aggregate production and the protection of natural areas arise because many of the highest quality aggregate deposits in Southern Ontario are found in areas of great ecological and social significance"*. ([New Directions for Planning in Ontario II](#), Ontario Planning Journal, Jan-Feb 2008 edition)

This over-emphasis on close-to-market extraction causes an inappropriate imbalance between the minimization of transportation impacts versus negative impacts of close-to-market locations, including environmental, community, farmland, cultural / heritage impacts.

This close-to-market emphasis ignores the long-term transportation impacts caused by the degradation and potential permanent loss of agricultural lands. Aggregate extraction close-to-

market reduces the impacts of transporting aggregate in the short term, but when agricultural capacity of these lands is lost or reduced, the impacts of transporting produce into Southern Ontario will increase for perpetuity.

Gravel Watch Recommendation #2: This first section of policy 2.5.2.1 referring to close-to-market should be removed from the PPS thus allowing market forces to operate. These forces will naturally tend toward shortening travelled distances.

Issue #3. Demonstration of need

Gravel Watch's issue #3 relates to:

Policy 2.5.2.1 (continued) Demonstration of need for mineral aggregate resources, including any type of supply/demand analysis shall not be required ... locally or elsewhere.

Gravel Watch comments. That an aggregate pit licence proposal does not have to demonstrate need runs counter to the MNR strategy for the sustainable management of non-renewable aggregate resources. This leads to situations bordering on excessive exploitation.

For example, consider Zorra Township's recent pit zoning and licence applications. The applications for this pit quoted this PPS subsection as apparent justification for seeking to licence a property adjacent to 5 other operating licences within 4 agricultural lots. This significantly increased the cumulative hydrological impacts on rare species found in adjoining Provincially Significant Wetlands within the same primary subwatershed. The township pit, licensed in 2010, became the 13th operating pit within a 3 mile radius of the nearby residential village of Harrington. Each pit's annual total quota already exceeds local consumption of aggregates.

Gravel Watch agrees with Ontario Nature's Recommendation 5 in their 2009 publication *The Green Way Forward*: "*The PPS should recognize natural heritage as a provincial interest equal to agriculture and mineral aggregate resources. Section 2.5.1 of the PPS should be changed so that aggregate extractors must demonstrate a need for any new or expanded operations.*"

Gravel Watch recommendation #3: Policy 2.5.2.1 should be revised to require demonstration of need including analysis of supply and demand.

Issue #4. Minimizing impact & considering cumulative impact

Gravel Watch's issue #4 relates to:

Policy 2.5.2.2: Extraction shall be undertaken in a manner which minimizes social and environmental impacts.

Gravel Watch comments. This section seems to give permission for extraction in any location. It implies that impacts only have to be minimized but not necessarily avoided. All that can be required from operators is to minimize (but not avoid) impacts. As long as there is an attempt to mitigate impacts, a licensing application can be judged to be satisfactory by the MNR. This does not require monitoring of pit & quarry operations by MNR or municipal officials. Too often

environmental damage is noted only too late, as in the recent breach of the aquitard at the Dolime Pit in Guelph caused by blasting activities [Dolime].

Under the ARA there is no explicit threshold of adverse impacts stated where extraction should not take place, thus aggregate extraction is assumed to take precedence over all other land uses where profit can be made from opening an aggregate pit or quarry regardless of need. In many cases, to the extent to which social and environmental impacts can be minimized, aggregate extraction still leads, over time, to extensive degradation and damage of the hydrological and natural heritage features including provincially significant areas such as PSWs and coldwater streams.

After licensing under the ARA, there is a serious lack of monitoring and enforcement of stated measures to minimize social and environmental impacts. Complaints from the public are the only means to draw attention to the adverse impacts and the penalties to the operator are of limited consequence.

Policies in the PPS that apply to official plans and zoning amendment applications for pits and quarries should set standards for the preparation of planning reports based on a precautionary approach. The same standards should be reflected in reports prepared for licence applications.

Gravel Watch Recommendation #4: Part 1. Policy 2.5.2.2 should be modified to state “Extraction shall be undertaken in a manner which adequately assesses and addresses social and environmental impacts using quantifiable indicators”. Part 2. Policy 2.5.2.2 should be further modified to state “Where multiple aggregate pits occur in a local area and in a lower-tier jurisdiction, cumulative impact studies for new or expanded aggregate operations shall be conducted at the local and regional level on the health, safety, natural environment, and water issues to ensure the increased impact remains at or within sustainable set levels.

Issue #5. Conservation and recovery

Gravel Watch’s issue #5 relates to:

Policy 2.5.2.3 The conservation of mineral aggregate resources should be promoted by making provision for the recovery of these resources, wherever feasible.

Gravel Watch comments. Policy 2.5.2.3 requires clarification in order to be more specific in its intention. The policy does not clearly define the terms “conservation” and “recovery”.

The Oxford dictionary defines conservation as “*the action of conserving something, especially a. preservation, protection or restoration of the natural environment and wildlife; b. preservation and repair of archaeological, historical and cultural sites and artefacts; c. prevention of wasteful use of a resource*” We agree with the promotion of conservation of mineral aggregates for use by future generations and for preservation of natural heritage. The Oxford dictionary offers this definition of recovery: “*the act of regaining possession, or use or control of; reclaiming*”.

Unfortunately, Policy 2.5.2.3 does not conserve or recover aggregates (in the sense defined by Oxford), but quite the contrary. In practice Policy 2.5.2.3 promotes largely unfettered aggregate resource extraction by excluding other potential land designations (such as prime agricultural

land). This in turn encourages rapid consumption of aggregates as opposed to conserving or recovering these resources.

Such exploitation tends to hinder the protection of other important non-aggregate resources, regardless of their possible greater value to the well-being of Ontario citizens.

In their *Consensus Recommendations to the Minister of Natural Resources* (June 2010) the SAROS Advisory Committee in Priority Area 3 (page 7) advised the minister to “Develop an Aggregate Resource Conservation Strategy to emphasize the three R’s (Reduce, Reuse and Recycle)”. The purpose of this recommendation was to conserve *in situ* (in position) aggregate rather than to conserve aggregate for extraction.

Gravel Watch Recommendation #5: Policy 2.5.2.3 should be clarified to mean potential aggregate resource reserves shall be protected only from urban and industrial development, wherever feasible, but not at the cost of other irreplaceable resources. These irreplaceable resources would include Provincially Significant Wetlands (PSWs), Areas of Natural and Scientific Interest (ANSIs), special habitats, ground and surface water and unique land forms where associated with aggregate resources.

Issue #6. Protection from development and activities

Gravel Watch’s issue #6 relates to:

Policy 2.5.2.4 Mineral aggregate operations shall be protected from development and activities that would preclude or hinder their expansion or continued use or which would be incompatible for reasons of public health, public safety or environmental impact.

Gravel Watch comments. It is questionable whether Policy 2.5.2.4 belongs in the PPS as no other specific human activity is given such protection. Inclusion of subsection 2.5.2.4 as stated in the PPS implies a preferential status for aggregate resource extractions over developments or activities. The PPS provides no provisions for the protection of other resources impacted by aggregate extraction development and expansion. If retained, this subsection needs counter balance in order to adequately protect the health, safety and quality of life of Ontarians and the natural environment.

Subsection 2.5.2.4 limits adjacent land owners as to their use of land. In contrast, at present, many pits and quarries are or become established in locations which are incompatible with the protection of public health, safety and natural environment. For example, two gravel pits have recently been licenced by MNR within a few meters of existing homes within the limits of the hamlet of Inverhaugh (near Elora). The premise, that all impacts can or will be “mitigated”, is too often false or misleading.

A review by Gravel Watch of data on MNR decisions for aggregate licence applications collected from the Environmental Registry reveals that almost no proposals have been denied since 2001 despite the numerous environmental, health and safety concerns voiced. Indeed, it would appear that all environmental concerns can be mitigated and specific concerns regarding the use of land have almost never stopped an aggregate licence application to date. As well, infrequent monitoring through MNR inspections may allow these mitigations to lapse or possibly prove to be ineffective in accomplishing their objectives.

Subsection 2.5.2.4 appears to be in conflict with the Environmental Protection Act Section 179.(1) *Conflict With Other Legislation*, which states:

Where a conflict appears between any provision of this Act or the regulations and any other Act or regulation in a matter related to the natural environment or a matter specifically dealt with in this Act or the regulations, the provision of this Act or the regulations shall prevail.

Aggregate developments are established in incompatible locations as a result of the implication of subsection 2.5.2.4 as appearing to give priority to aggregate extraction. Indeed, the provisions in subsection 2.5 have been quoted by official planning, zoning and license applicants. Affected nearby residents concerned about their well-being are forced to accept ineffective mitigating solutions or face a costly OMB hearing. OMB decisions have usually favoured the pit/quarry applicant who can afford the costly legal counsel and consultants. Frequently the concerns of residents are subsequently manifested after an aggregate pit is in operation and it is extremely difficult to correct them. Subsequent litigation in respect to health effects and impacts on natural environmental features is difficult and costly for the public, municipal representatives and government agencies.

Gravel Watch Recommendation #6: Policy 2.5.2.4 should be modified to explicitly state: No aggregate operation, pit or quarry shall be established or expanded in locations which are deemed to be incompatible (for reasons of public health, public safety, and/or environmental impact).

Issue #7. Existing operations exempted from Planning Act

Gravel Watch's issue #7 relates to:

Policy 2.5.2.4 (continued) *Existing mineral aggregate operations shall be permitted to continue without the need for official plan amendment, rezoning or development permit under the Planning Act.*

Gravel Watch comments. It is unclear as to what existing mineral operations are, can be or are allowed to operate without the need for official plan amendment, rezoning or development permit under the Planning Act. A purpose of an official plan amendment and rezoning or development permit is to scrutinize a proposal under the lens of environmental protection and assure transparency in permitting the licence. With our current increased awareness of the negative impacts of aggregate extraction on other natural resources, it is the ethical responsibility of (grandfathered?) exempted pit operations to agree to be submitted to the same degree of environmental scrutiny and management as newer operations thus protecting the environmental and creating a level playing field.

Gravel Watch Recommendation #7. All existing aggregate operations shall be brought under the Planning Act to conform with required currently existing legislation.

Issue #8. Ceased aggregate operations

Gravel Watch's issue #8 relates to:

Subsection 2.5.2.4 (continued) *When a license for extraction or operation ceases to exist, policy 2.5.2.5 continues to apply.*

Subsection 2.5.2.5 *In areas adjacent to or in known deposits of mineral aggregate resources, development and activities which would preclude or hinder the establishment of new operations or access to the resources shall only be permitted if: resource use would not be feasible; or the proposed land use or development serves a greater long-term public interest and issues of public health, public safety and environmental impact are addressed.*

Gravel Watch comments. This part of Policy 2.5.2.4 assigns excessive protection to aggregate resources that is not offered to other resources. Further, it punishes adjacent landowners unjustly by indefinitely extending the limitations imposed by a pit licence. So living next to an abandoned licensed pit amounts to a life sentence!

Gravel Watch Recommendation #8: Change this subsection to state: When a license for extraction or operation ceases to exist, policy 2.5.2.5 ceases to apply.

Issue #9. Rehabilitation

Gravel Watch's issue #9 relates to:

Policy 2.5.3.1 *Progressive and final rehabilitation shall be required to accommodate subsequent land uses, to promote land use compatibility ...*

Gravel Watch comments. Except for a few “show-case” examples, progressive and final rehabilitation has too often been poorly done in spite of Subsection 2.5.3.1. Gravel Watch launched an Application for [Review of rehabilitation](#) [RehabGW] under the Environmental Bill of Rights for Ontario pits and quarries. MNR agreed to carry out the review, which established that pit/quarry rehabilitation commonly is not carried out. The MNR found that: “*There are many examples of companies performing excellent progressive rehabilitation. However, a significant component of the aggregate industry is falling behind as evidenced by an inventory of licences conducted on the Oak Ridges Moraine and from discussions held with aggregate inspectors, consultants who prepare site plans, and industry staff who implement them.*” MNR reported that: “*Site plans, especially for pit operations, have often been vague with respect to phasing of operations and hence progressive rehabilitation.*” In brief, Policy 2.5.3.1 is well intentioned but not very effective.

According to Paper 6 of the State of Aggregate Resources Study (SAROS), rehabilitation is not occurring as per Subsection 2.5.3.1. Chapter 4 in SAROS Paper 6, page 7 shows that 40% of the 50 pits and quarries studied had no progressive rehabilitation while another 48 % were left as “open space” (not rehabilitated except for allowing vegetation to regenerate). Therefore “Open space” may be flat land with no soil or may have mounds of discarded clay and stone.

Aggregate operations are often located in agricultural lands frequently associated with wetlands, water courses and woodlands. Chapter 4 of SAROS Paper 6, Figure 2 shows that only 8% of licensed lands studied were being returned to agriculture, of uncertain quality”.

The high cost of appropriate rehabilitation, the lack of enforcement to do so by MNR combined with licences issued in perpetuity (with no expiration date) may encourage some pit operators to postpone rehabilitation indefinitely by simply continuing to pay small annual dues with the hope that the ‘rehab’ problem can be passed on or forgotten. Besides, aggregate pits and quarries are zoned from agricultural to industrial lands, and industrially-zoned land is more valuable to the owner for resale purposes.

In his annual reports, the Environmental Commissioner of Ontario expressed disappointment with the MNR’s enforcement of the PPS 2005’s rehabilitation policy. Gravel Watch agrees that the self-regulated aggregate industry has proven by its unimpressive record that close monitoring is essential if rehabilitation is to be effective.

Gravel Watch Recommendation #9: Subsection 2.5.3.1 needs refining, particularly to emphasize the use of performance indicators that establish monitoring, reporting and enforcement to make rehabilitation effective.

Issue #10. Interim land use

Gravel Watch’s issue #10 relates to:

Policy 2.5.3.1 (continued): ... and to recognize the interim nature of extraction.

Gravel Watch comments. “Interim nature” implies a short term use (less than 10 years?) and by implication, this assumes that there will be little or no environmental impact. Aggregate pits and quarries are in fact not an “interim” land use. Aggregate licenses are issued in perpetuity with no expiry date and no restrictions on the transfers of ownership. This allows indefinite postponement of rehabilitation. Aggregate license surrenders are rare.

With so many pits and quarries (over 6000) in production concurrently in Ontario it is not surprising that most do not approach their annual production quota. This situation extends the land use of aggregate operations over generations resulting in the indefinite postponement of progressive and final rehabilitation.

As of December, 2009, the MNR’s ALPS database listed 6103 aggregate licenses, with a total area of 161,977 hectares. Each license has an annual production quota. The combined annual production quota for these 6103 aggregate licenses apparently exceeds 2.25 billion tonnes. The Ontario Aggregate Resource Corporation (TOARC)’s data indicates 153.8 million tonnes of aggregates were hauled during 2008. Thus the annual capacity of the 6103 aggregate licenses would seem to be 14 times greater than the quantity of aggregates actually hauled in 2008. This excess capacity suggests that many pits are effectively idle each year to greatly extend their longevity, which suggests that their use is not “interim”.

Gravel Watch Recommendation # 10: The concept of aggregate extraction as having an ‘interim nature’ should be removed from the PPS --- or the term “interim” should be

qualified in a policy which requires all aggregate licenses to have a fixed, non-amendable expiry date (perhaps 10 or 20 years in the future) set from the time of issue of the licence.

Issue #11. Rehabilitation on non-designated land

Gravel Watch's issue #11 relates to:

Policy 2.5.3.2 *In parts of the Province not designated under the Aggregate Resources Act, rehabilitation standards that are compatible with those under the Act should be adopted for extraction operations on private land.*

Gravel Watch comments. Policy 2.5.3.2 as it is stated applies to private land but not to Crown land. Many aggregate pits were opened on crown land for road construction for cottages, forest harvesting and mining. Many became abandoned scars on the landscape with no rehabilitation.

Gravel Watch Recommendation #11: Rehabilitation standards under the Act should be adopted for extraction operations on both crown and private land.

Issue #12. Extraction in prime agricultural land

Gravel Watch's issue #12 relates to:

Policy 2.5.4.1 *In prime agricultural areas, on prime agricultural land, extraction of mineral aggregate resources is permitted as an interim use provided that rehabilitation of the site will be carried out so that substantially the same areas and same average soil quality for agriculture are restored.*

Policy 2.3.5 Removal of Land from Prime Agricultural Areas

2.3.5.1 b *Planning authorities may only exclude land from prime agricultural areas for extraction of minerals, petroleum resources and mineral aggregate resources in accordance with policies 2.4 and 2.5*

Gravel Watch comments. Gravel Watch disagrees with the view that aggregate extraction is an "interim use," as we have explained in some detail in earlier parts of this submission. The term "interim" implies a short term use (less than 10 years?). By implication, this assumes that there will be little or no environmental impact with a quick return to former prime agricultural status. When applied to aggregate extraction, "interim use" is incorrect as pits and quarries are issued a licence in perpetuity (with no expiration date) and apparently have an average lifespan exceeding 25 years.

This policy needs some modification by deleting the term "interim" and by clarifying, before the license can be issued, how rehabilitation is to be enforced so as to ensure a return to equivalent agricultural production.

Gravel Watch agrees with the Environmental Commissioner's views questioning the consideration of aggregate pits and quarries as interim land use (see the Ontario Planning Journal Jan-Feb 2008 article mentioned earlier):

I question the assertion that pits and quarries are an "interim land use." The term "interim" suggests "short-term," but the impact of aggregate operations on the environment and communities is rarely that. Adding the years needed to complete the necessary rehabilitation, land used for a quarry could be unavailable for any other use for many decades.

Gravel Watch's opinion is further supported by the Intergovernmental Committee on Urban and Regional Research (ICURR) in their Spring 2010 Liaisons Newsletter (**Vol. 9, No. / n° 3 ISSN 0843-5278**):

The lexicon of government and industry includes frequent references to pits and quarries as an 'interim land use' which is misleading, as the life span of many of these operations can run into decades and given the major alterations to the landscape they create, pits and quarries can just as easily be seen as a 'permanent land use.

Few pits and quarries have been returned (nor can they be) to an equivalent productive agricultural status. Extraction below the water table resulting in the formation of pit lakes and attempted wetlands makes rehabilitation to productive agricultural status impossible.

Aggregate pits and quarries leave a permanent, indelible mark on the landscape, natural environment and local hydrology. In many cases, not only is highly productive agricultural land lost, so too are many valuable forests and wetlands permanently degraded or lost both on and adjoining the licensed extraction site. Where extraction occurs down to or below the water table, ground water absorption, filtration, and protection of source water are lost forever. Returning an equivalent area of excavated land to agricultural status of equivalent fertility and productivity is costly and is difficult. Productivity depends on top soil and subsoil conditions both of which have developed over thousands of years and which cannot be duplicated by spreading fertilized topsoil over the barren land. In many cases, aggregate excavation has reached down to 1 m or less above the regional water table, sometimes destroying seasonal perched water tables.

Soils remaining from excavation down to within a meter of the water table are continuously wet from the capillary action of soils soaking up water from the water table and cannot be properly drained for use as agricultural land. If attempts are made to use such lands for agriculture with the application of artificial fertilizers, animal wastes and pesticides, the the water table can be contaminated with nitrates, phosphates and other chemicals (Best Management Practices – Water Wells revised edition, 2003 Agriculture and Agri-Food Canada).

Below water table aggregate excavations leave lakes which would require filling in order to return to agricultural status. Such lakes create 'windows' open to contamination of the water table via the leaching of agricultural chemicals and animal wastes applied on adjacent agricultural lands.

Gravel Watch Recommendation #12: Lands identified as prime agricultural lands should be excluded from aggregate designation.. Corresponding changes should be made to subsection 2.3.5 Removal of Land from prime agricultural areas.

Issue #13. Wayside pits and quarries

Gravel Watch's issue #13 relates to:

Policy 2.5.5.1 Wayside pits and quarries, portable asphalt plants and portable concrete plants used on public authority contracts shall be permitted, without the need for an official plan amendment, rezoning, or development permit under the Planning Act in all areas, except those areas of existing development or particular environmental sensitivity which have been determined to be incompatible with extraction and associated activities.

Gravel Watch comments. Subsection 2.5.5.1 regarding the management of wayside pits and quarries is seriously out of date because it effectively allows change in land use and development without planning considerations. Based on the ALPS data, there already apparently exists an overabundance of aggregate operations to more than meet current and projected needs. Public authorities should be practising conservation by accessing current operations instead of opening new sites. By their nature, wayside pits are just as likely to cause environmental damage as licenced pits --- and without the appropriate planning approval process and appropriate safeguards, there is no accountability. As well, portable asphalt/concrete plants and recycling facilities on the floor of a pit or quarry pose a serious contamination threat to the ground water resources.

Wayside pits and quarries cannot be considered an interim use as they leave a permanent, indelible mark on the landscape, natural environment and local hydrology like all other aggregate pits and quarries.

Gravel Watch Recommendation #13: Subsection 2.5.5.1 should be revised to ensure a planning process requiring the same degree of environmental responsibility for wayside pit and quarry operations as expected from licensed pits and quarries

Issue #14: Climate change impacts

The PPS needs to develop an over-arching policy concerning Global Warming and Extreme Weather Events (Climate Change) and should reference Climate Change in all sections of Part V of its Policies, in particular Section 2.0 *Wise Use and Management of Resources*. Wetlands, woodlands, and *in situ* aggregate resources provide us with our first line of defence against flooding, droughts and disease.

Southern and Eastern Ontario's much diminished natural heritage leaves residents vulnerable to Climate Change where water becomes a central issue in Climate Change. Wetlands, woodlands and *in situ* aggregate are key natural heritage ingredients in storing and controlling the release of high quality ground and surface water for Ontario residents and their developed agricultural and industrial base. Too much water in the form of floods and shortages of water in the form of droughts at the wrong time of year will do considerable harm to our well being. To combat the effects of Climate Change, the PPS must start to give high priority to protecting and enhancing remaining wetlands and woodlands resources. This priority should be above that for expansion of agricultural land and aggregate extraction.

Gravel Watch Recommendation #14: Initiate a new policy to address Climate Change impacts which gives priority to preserving water resources by protecting aggregate, wetlands and woodlands from further unnecessary exploitation.

Conclusion

In this submission Gravel Watch presents a set of recommendations regarding mineral aggregate resources for the current PPS review to protect the health, safety, quality of life of Ontarians and the natural environment in matters that relate to aggregate resources and climate change. We hope that our rationale in support of our recommendations has brought to light the need for significant improvement of the current PPS policy regarding mineral aggregates.

The present PPS has encouraged unfettered aggregate extraction at high costs to our social and natural environment including our water resources.

The combination of wide-spread extraction in thousands of aggregate pits as well as localized concentration of extractive activity produces an undesirable cumulative impact on the health and safety of communities and on the natural heritage of this province. Dust, noise, traffic and water pollution negatively impact the health of humans, animals and plants.

Based on previous and present land use policies, there are now over 6000 licenced aggregate pits and quarries. Under the current PPS guidelines, additional aggregate licenses continue to be issued at the expense of other natural assets of equal or greater importance. The current PPS does not foster conservation and protection of aggregates – quite the contrary.

Climate change with its severe weather events is upon us and we cannot afford to lose the already diminished protection provided by our wetlands, water sources and choice agricultural land. Therefore, Gravel Watch recommends the insertion of a new policy for Climate Change to be included in the revised PPS, recognizing the value of *in situ* aggregate for its role in protecting us from floods and droughts as well as its ability to filter and purify ground water.

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