

**Sustainability and Aggregate Resource Extraction in Southern Ontario:  
A case study of the proposed St Marys Cement Inc. Flamborough Quarry**

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## EXECUTIVE SUMMARY

The land use planning system in Ontario frequently alludes to pursuing sustainability and strives for a balanced approach to development in the province. Development that is sustainable is to balance economic, socio-cultural, and environmental objectives. In the case of aggregates extraction this is much easier said than done, and pursuing sustainability in managing aggregates extraction can sometimes translate into conflicting priorities.

This report is an investigation into the events of a proposed aggregates quarry in the Flamborough region of the City of Hamilton, Ontario. These events serve as a case example of the aggregates management system in the Province of Ontario. This report will consider the Ontario aggregates management system through the case of the proposed Flamborough quarry. This report asks what can be learned from the events of the proposed Flamborough Quarry and some of the related aggregates planning and management processes to build an improved understanding of sustainable development as it relates to mineral aggregate resource management in southern Ontario.

The quarry was initially proposed in 2004 by Lowndes Holdings Corporation; it proposed a 67 hectare extraction area that would extend up to 34 metres deep, with potential to extract up to 3 million tonnes of material every year. The quarry was proposed for a quiet rural area, at the corner of 11<sup>th</sup> Concession East and Milborough Line. Lowndes filed for an official plan amendment and a zoning by-law amendment that would change the designations on the property from rural, agricultural, and conservation management to extractive industrial. In 2006 Lowndes Holdings Corporation was purchased by St Marys Cement Group, a subsidiary of a multinational construction materials conglomerate.

The local community rose up in opposition to the proposed quarry almost immediately, forming a grass-roots citizen's advocacy group known as the Friends of Rural Communities and the Environment – FORCE. The community group resolved to oppose the proposal at a professional level, hiring their own consultants, scientists, and legal support and raising over half a million dollars in funds. The community's concerns included the safety of their drinking water, the dangers of truck traffic, the nuisances of noise, dust, and vibrations from blasting, and the overall loss of quality of life.

In 2010 the Ontario Ministry of Municipal Affairs & Housing intervened in the process with a Minister's Zoning Order (MZO), issued under the *Planning Act*. The MZO denies any changes to the current zoning, effectively halting the application process. This report will consider the events up to and including the issuance of the MZO. Since then the proponent has appealed the decision to the Ontario Municipal Board. If the Board upholds the MZO it signals a major victory for the quarry's opponents, but also a multi-million dollar sunk cost to St Marys.

To learn about the Ontario aggregates management system through the events of the proposed Flamborough quarry this report conducts a document review and themed analysis using

a combined framework based on sustainability assessment frameworks from both academics and industry professionals. The document review will examine data from multiple sources including media articles, professional reports and studies, government documents, and academic literature.

The criteria for the themed analysis were based on a condensed adaptation of work from two sources. The first source is Dr. Robert Gibson's work on criteria for sustainability assessment. The second source is the sustainability assessment framework developed by the North American branch of Mining, Minerals and Sustainable Development (MMSD-NA) – a mining industry coalition formed to guide the industry towards sustainable practices. Criteria from both sources were selected and arranged into coordinated groups, based on a preliminary review of the data. Based on Gibson's criteria the final ten themes can be grouped into two broad categories: Socio-Ecological Civility and Democratic Governance, and Socio-Ecological Systems Integrity. Four select MMSD-NA categories nest within Gibson's two categories, these MMSD-NA categories consist of: Institutional Arrangements and Governance, Engagement, Environment, and People. Each of these categories holds several specific objectives for a project to demonstrate the pursuit of sustainability. These objectives form the themes for the document review.

The results of the analysis demonstrate that, while there are some positive aspects to the Ontario aggregates management system, it is a long way from the goal of demonstrating a pursuit of sustainability. The province succeeds in ensuring institutional arrangements and governance systems are capable of acting in accordance with sustainable objectives. The province also demonstrates the movement towards policy, plans, programs and legislation that are reflective of sustainability. There is very little attention to proper engagement and public consultation within the aggregates management system and this is reflected in the system's general lack of consideration for community interests, public well-being, or accounting for social or cultural interests. Finally, consideration for the integrity of the environment and, more importantly, socio-ecological systems, is lacklustre. The rules and regulations within the system require a good deal of attention to protecting the environment, but the process often falls short of truly pursuing the long term well-being of these systems, and there is a clear lack of sensitivity to the complex systemic implications of the impacts of aggregates extraction.

Based on the analysis of the events of the proposed Flamborough quarry and the evidence of a pursuit of sustainable development and the selected objectives this report makes several recommendations to improve the Ontario aggregates planning and management system. First, the province should institute an early screening process for all aggregates applications. The process would be based on collaboratively developed criteria for what constitute an acceptable aggregates development in Ontario. Second, the province should undertake a strategic environmental assessment (SEA) of the entire aggregates management system. An SEA for the aggregates system would involve bringing all relevant stakeholders together, whether formally or informally, in an equitable, inclusive, and transparent manner to reconsider and develop all necessary policies, plans and programs for the aggregates management system.