F O R C E

Friends of Rural Communities and the Environment

BACKGROUNDER
PROPOSED ST. MARYS FLAMBOROUGH QUARRY
www.StopTheQuarry.ca

CHRONOLOGY

May 2004 – Lowndes Holdings Corp. (LHC), the original proponent, made public its plans to develop a limestone quarry

Sept 2004 - LHC submitted Official Plan Amendment (OPA) and Zoning by-law change applications to the City of Hamilton

June 2006 - St Marys Cement (SMC) purchased LHC and announced its intention to proceed with the limestone quarry application

Oct 2007 - Hamilton Public Health Services submitted a rare section 11.1 notice to the Ontario Ministry of the Environment (MOE) under the *Health Protection and Promotion Act* re: risk to public health due to risk for adverse effects on groundwater quantity and quality

Feb 2008 - City of Hamilton passed unanimous motion calling on Province to protect the Carlisle municipal groundwater-based system

Oct 2008 - SMC submitted OPA and Zoning by-law change applications for an adjacent property at 1869 Milburough Townline to the City of Hamilton

Jan 2009 - SMC applied to the Ministry of Natural Resources (MNR) for an aggregate licence

Feb 2009 - Hamilton Public Health Services and Halton Region Medical Officer of Health wrote to MNR regarding SMC aggregate licence application and significant risk to public health

April 2009 - SMC initiated the public notification and consultation and stakeholder resolution processes for objections under the *Aggregate Resources Act* (ARA)

Apr/May 2009 - City of Hamilton and Town of Milton passed unanimous motions objecting to SMC aggregate licence application and calling on Province to deny the licence. Objections to the licence application were also filed by the City of Burlington and Halton Region. Hamilton Public Health Services objected to the licence application

THE PROPOSAL

- St. Marys Cement Group purchased Lowndes Holdings Corp. in June 2006 and announced its intention to proceed with an application to establish the 8th largest limestone quarry in Canada, 3rd largest in Ontario, based on annual production.
- The proposed aggregate development is on property in Northeast Flamborough near the border of the City of Hamilton and the Region of Halton – the property parcel is some 380 acres in size with the stated intention of expanding to an adjacent 154 acres (not part of the initial application).
- The application, as currently submitted, calls for:
    - 3 million metric tonnes to be quarried per year
    - Average excavation depth of 32 meters or 100 feet, over an area of 164 acres
    - Some 200 days per year of operation with operations planned six days per week, Monday through Saturday. On site activities are to start at 7 am and operation until 7 pm on weekdays and until 12 noon on Saturdays
    - A peak of 570 trucks per day (1140 truck trips), resulting in 1 truck movement every 26 seconds, with operations starting at 6 am each day
    - An estimated project lifespan of 25-30 years for the initial land parcel, repeated with the stated expansion lands
- To read the applications and supporting technical materials for more details about the proposal, please visit www.StopTheQuarry.ca and follow the St. Marys Cement Group link on the left menu

THE APPLICATIONS

- An application was submitted to the City of Hamilton in September 2004 for an Official Plan Amendment and Zoning By-law change – to change from the existing approved Agriculture and Conservation Management land use to Industrial/Mineral Aggregate Extraction, necessary to obtain an aggregate licence and use the property as a quarry.
- An aggregate licence cannot be granted without the appropriate, permissible zoning in place
- A second application was submitted to the City of Hamilton in October 2008 for an Official Plan Amendment and Zoning By-law changes for an adjacent 10 acre parcel at 1869 Milburough Town Line. The property is proposed to be used for site access and part of the groundwater recirculation mitigation system, among other possible uses.
- An aggregate license application was submitted to MNR in January 2009
- SMC triggered the public notification and consultation period in April 2009 for the filing of objections, to be followed by an objection resolution process
- A reconfirmation of objections period for non-government/agency stakeholders was triggered by SMC in January 2010, with deadlines in February and March 2010

COMMUNITY CASE – WHY WE ARE OPPOSED

- We live, work, attend schools, and play here in the neighbouring rural communities of Carlisle, Mountsberg, Freelton, greater Flamborough, Campbellville, Kilbride, and rural Milton.
- Friends of Rural Communities and the Environment (FORCE) – the communities' voice - was formed in June 2004 at a large scale community meeting to professionally and substantively advocate for community interests and to oppose the aggregate development application.
- We've spent the last six years learning about municipal Official Plans and by-laws, provincial laws and policies, raising funds and retaining technical experts.

- We believe that the proposal must be rejected because of:
    - the hydro-geological significance of the area
    - environmentally sensitive features and species at risk in the Natural Heritage System of the Greenbelt
    - preservation of and impacts on working agricultural lands, and the
    - impact on existing rural residential, business, and school communities.

Drinking Water

- The lands owned by SMC include the significant recharge area and the 2 year Time of Travel (TOT) capture zone in the Wellhead Protection Area for the Carlisle groundwater-based municipal drinking water system. The system of wells serves some 3,000 residents.
- Carlisle is well known for its experience with water restrictions and bans over the years.
- The potential impact on plentiful, safe drinking water for the Carlisle municipal wells, hundreds of individual and communal residential wells is forecast to be significant and widespread, being felt up to 2.5 km away.
- The proponent's own experts have documented "unacceptable impact", if unmitigated.
- Retained experts have called the mitigation scheme "unproven, theoretical, and ineffective" and the Ontario Ministry of the Environment has registered its objections
- The *Clean Water Act* promises protection for Wellhead Protection (WHPA) and recharge areas, among other key areas. The law is based on the principle of prevention first and it is designed to address existing and *future* proposed activities.
- The Minister of the Environment's (MOE) Technical Experts Committee established a Threats Assessment Framework as part of its November 2004 report, advising on the implementation of source protection planning. It identified land use activities that threaten drinking water sources and are sufficiently serious to be of provincial concern (Table 3.1). Pits, quarries, and mines were listed as human-made pathways to the aquifer in this category. Their primary issue is "vulnerability" as direct pathways are made to current or future potential drinking water systems. The Committee provided examples of Risk Management approaches for threats of provincial concern (Table 6.2). It recommended that pits/quarries and their final land disposition be assessed according to new municipal well standards and be restricted within the 5 year Time of Travel (TOT). The Committee also recommended that two pathogen management zones should be delineated within the WHPA (recommendation 46). A 100 metre pathogen security area and a 2 year Time of Travel (TOT) zone should be considered as the area of concern with respect to bacteriological/pathogenic contaminants.
- The proposed St Marys Cement Flamborough quarry is an example of a human-made pathway to the aquifer that falls within the 2 year TOT to the Carlisle municipal drinking water system. It is closer than the 5 year TOT recommended by the Technical Expert Committee. It also falls within one of the key areas recommended as a bacteriological and pathogen management zone.
- In the Technical Rules for preparation of Assessment Reports, under the source protection planning process, issued in December 2008, transport pathways that are anthropogenic in origin, such as quarries, are, indeed, highlighted for the vulnerability that they create to the aquifer and drinking water systems. Part IV.1 on Groundwater Vulnerability Assessment, sections 39 – 41, indicate that transport pathways can be used, in part, to identify areas of vulnerability and to increase the vulnerability ranking based on such factors as hydro-geological conditions, type and design of the transport pathway, cumulative impact of transport pathways, and the extent of assumptions used in the assessment of the vulnerability of the groundwater. The Technical Rules also speak to threats to water quantity (in the form of water takings and the reduction of recharge) and threats to water quality. The latter includes a table of activities involving chemicals (Table 1 – Drinking Water Threats – Chemicals) and a table of activities involving pathogens (Table 2 –

Drinking Water Threats – Pathogens). Some activities, which one would expect at the proposed quarry operation, can be found on these lists, including the handling, storage and application of road salt, the handling and storage of fuel, and the application, handling and storage of organic solvents.

- A draft regulation, to support the development and implementation of source protection plans under the *Clean Water Act*, was out for public consultation. Section 19.8 of the draft regulation proposes that a source protection plan may contain policies respecting transport pathways (i.e. a condition of land resulting from human activity that increases the vulnerability of a raw water supply). Section 1.0.1 of the draft regulation specifies the various provincial instruments that are prescribed under the Act that have to conform to significant threat policies and have regard to other specified policies of the source protection plans. These include instruments under the *Aggregate Resources Act*.
- The Carlisle drinking water system is a Type 1 system, under the source protection planning rubric, as defined by the Technical Rules. The proposed quarry site falls within its WHPA – B (2 year TOT). At this point in time, we understand the City of Hamilton is refining its groundwater characterization and modeling with Earthfx, for the areas surrounding its four groundwater-based communities, including Carlisle, and work is also underway with respect to the groundwater supply for Campbellville. These pieces of work will be shared with the Halton-Hamilton Source Protection Agency and Committee and used in its source protection plan development. The Carlisle wells are also identified for Tier 2 watershed analysis, as part of the Bronte Creek watershed, and the Flamborough Creek sub-watershed.
- This contextual information is relevant because the land base of many of our communities fall within the Greenbelt Plan, as does the proposed site in question. The Greenbelt Plan prohibits new, or extensions to existing, lake-based water systems. This means that there is no Plan B for the City of Hamilton or this community, if its groundwater based drinking water system is adversely impacted, in terms of quantity and/or quality.
- No mitigation system of any type has been tested or proven on the site, to date. The first phase – baseline pump testing – of a three phase test was commenced by the proponent under a temporary PTTW, during the summer of 2008. The MOE indicated in October 2008 that the data resulting from the phase 1 test was unacceptable, and requested the company to redo its testing to better understand the aquifer and provide appropriate baseline data for future testing phases. Subsequent phases were to test a groundwater recirculation system (GRS). In January 2009, the proponent indicated that it did not intend to repeat the first phase test. In March 2009, MOE reiterated its decision regarding the acceptability of data and rationale and indicated that if the company did not intend to carry out further testing under the PTTW, that the permit would be revoked. In April 2009, the company requested that the PTTW not be revoked, that MOE review its final report, and that discussion between the two parties, regarding what specific purpose and nature of testing might be appropriate on site, following review of the ARA objections received. The permit expired June 30, 2009 with the testing incomplete.

Natural Features

- The proposed quarry lies completely within the Natural Heritage System of Ontario's Greenbelt, the area afforded the highest protection within the Greenbelt.
- The site and contiguous properties include many Environmentally Sensitive Areas, Provincially (PSW) and Regionally Significant Wetlands complexes, Areas of Natural and Scientific Interest (ANSIs), Significant Woodlands, Significant Wildlife Habitats, and Provincially Significant Vegetation Communities.
- The Natural Heritage System, in our communities, is linked to environmentally sensitive areas important to both Hamilton and Halton. Efforts are underway to ensure management of some of these linkages, i.e. the Cootes to Escarpment Management Plan

- A range of flora and fauna represent species at varying degrees of risk/habitat restoration and recovery from the excavation, operation and/or its proposed haul routes, including: butternut, whip-poor-will, West Virginia White butterfly, western chorus frog, Jefferson salamander, red-side dace, and the eastern ribbon snake
- Few remaining areas in southern Ontario have this combination of natural attributes according to ecology experts
- the protection of natural features again relies predominantly on the success of the proposed GRS system and its adaptive management plan

Agriculture

- We are proud to have an active farm community in this area of Hamilton/Halton with a mix of operations including forage & grain; pork, beef, lamb and poultry production; market gardening; equine breeding and training; and greenhouse, among others.
- Aggregate development would represent the permanent loss of farmland in the Greenbelt
- The proposed quarry would potentially impact existing farm operations (through water quantity/quality, airborne particulates, livestock stress from blasting and noise, and farm vehicle transportation), along with reducing the critical mass of operations necessary for secondary agricultural support businesses.
- The proposed development conflicts with city and regional policies to target growth in the agriculture, food and beverage sector and to promote buy local programs

Haul Routes

- Haul routes are another serious concern. There is no easy access to a 400 series highway and our load-restricted roads are winding and narrow, with limited to no shoulders, and numerous grade changes.
- Traffic volume and vehicle conflicts with residential traffic, school buses, cyclists, equestrians, farm vehicles, emergency vehicles, trains on existing rail lines, and pedestrians are some of the issues. There are also health concerns from diesel emissions and the hard money questions of who will pay to upgrade and maintain the roads if the development is approved.
- Haul routes would also have adverse effects on natural heritage features and species

Community Impacts

- The proposed quarry is an incompatible land use with the local residences, schools and businesses
- Two elementary schools (JK-8), one with a child care facility, are located one concession south of the proposed quarry. One of the school's derives its water from a drilled well and requires potable water to operate. The proposed haul routes mirror established school bus routes
- There would be social impacts on people and how they live, work and recreate in our communities and economic impacts, including on real estate values and municipal tax base implications
- Noise impacts can be expected from on-site operations and off-site haul routes
- Vibration and blasting impacts can be expected on people and their built environments, such as homes, pools, and more
- Health impacts could result from air particulate and emissions
- Nuisance impacts can be expected from dust on people's homes, outdoor furniture, cars, and more
- There are numerous issues regarding the proposed site rehabilitation plan

Other Available Resources

- To read the drinking water and natural feature reports prepared by the Communities' retained experts, as well as the Community Issues Reviews, please visit www.StopTheQuarry.ca and follow the Community Case links.
- As communities, we are not alone in our concerns – they have been echoed in staff reports from the area municipalities, from Conservation Halton, from the Ministry of the Environment, from the Ministry of Natural Resources, from the Hamilton-Wentworth and Halton Region Federations of Agriculture, and from the local schools/boards, among others. To read the relevant reports, please visit www.StopTheQuarry.ca and follow the Government & Agencies links.
- The City of Hamilton's independent expert Peer Review Team has provided critical assessments of the proponent's technical studies. To read the Peer Reviews, visit www.StopTheQuarry.ca and follow the Government & Agencies link to the City of Hamilton. The full text of the each peer review report is provided by following the individual report links.
- The **Environment Commissioner of Ontario** has written extensively on challenges with the current aggregate licensing and enforcement system generally, and our case specifically. He has called on the province to reconcile its priorities between natural heritage and source water protection and aggregate extraction. In particular, see 2006-2007 Annual Report "Reconciling Our Priorities", April 2007 Special Report, 2007-2008 Annual Report "Getting to K(no)w", and 2008-2009 "Building Resilience".