

ENVIRONMENTAL REVIEW TRIBUNAL

IN THE MATTER OF sections 38 to 48 of the *Environmental Bill of Rights*, S.O. 1993, c. 28 and section 34 of the *Ontario Water Resources Act*, R.S.O. 1990, C.O. 40;

AND IN THE MATTER OF an application by Friends of Rural Communities and the Environment, pursuant to section 38 of the *Environmental Bill of Rights*, S.O. 1993, c. 28 for leave to appeal the decision of the Director, Ministry of the Environment, pursuant to section 34 of the *Ontario Water Resources Act*, in issuing Permit to Take Water 8461-7CFLG5, dated July 8, 2008, to St. Marys Cement Inc. (Canada) authorizing pumping tests at bedrock well TW14 located at Lot 3, Concession 11, East Flamborough, Hamilton, with EBR Registry Number: IA06E1293.

SUPPLEMENTARY APPLICATION FOR LEAVE TO APPEAL OF FRIENDS OF RURAL COMMUNITIES AND THE ENVIRONMENT

DAVIS LLP

1 First Canadian Place
Suite 5600
100 King Street West
Toronto, ON M5X 1E2

David Crocker (LSUC #14162U)

Tel: 416.941.5415

Fax: 416.365.7886

Liliane Gingras (LSUC #51029V)

Tel: 416.941.5404

Fax: 416.777.7433

Solicitors for the Applicant,
Friends of Rural Communities
and the Environment

TO: Environmental Commissioner Of Ontario

1075 Bay Street
Suite 605, 6th Floor
Toronto, ON M5S 2B1

Fax: 416.325.3370

AND TO: The Director, Section 34

Ontario Water Resources Act
Ontario Ministry of the Environment
119 King Street West
12th Floor
Hamilton, ON L8P 4Y7

Tel: (905) 521-7640

Fax: (905) 521-7820

AND TO: St. Marys Cement Inc. (Canada)

55 Industrial Street
4th Floor
Toronto, Ontario
M4G 3W9

Attn: John Moroz, Vice-President and General Manager, Aggregates, St. Marys CBM

Tel: (416) 696-4411

Fax: (416) 696-4435

AND TO: The Secretary

Environmental Review Tribunal
655 Bay Street, Suite 1500
Toronto, ON
M5G 1E5

APPLICATION

I-OVERVIEW

1. St. Marys Cement Inc. (Canada) ("St. Marys") proposes to establish a quarry in a rural community in the amalgamated City of Hamilton. This proposed development involves the removal of aggregate from below the established water table, and a dewatering system which has never before been used in the manner proposed by St. Marys. The proposed quarry will draw water from the same aquifer on which residents in the vicinity rely as their sole drinking water source.
2. In September, 2006, St. Marys applied for a permit to take water to test the proposed dewatering system. The Ministry of the Environment (the "MOE") notified the public of St. Marys' application by posting an "Instrument Proposal Notice" on the *Environmental Bill of Rights* (the "EBR") Registry (the "Registry"). The MOE invited the public to make comments on St. Marys' application.
3. The MOE received 532 comments on the proposed instrument, including comments from Friends of Rural Communities and the Environment ("FORCE"), the City of Hamilton, and Conservation Halton, objecting to the permit to take water being issued in the manner proposed. All three of these organizations expressed concerns with respect to the impact of the testing on adjacent wells.
4. On July 8, 2008, almost two years after St. Marys had made its application, the MOE granted a permit to take water bearing number 8461-7CFLG5 to St. Marys for the purposes of testing its proposed dewatering system (the "PTTW"). The PTTW was issued for a duration of approximately 11 months and 3 weeks. By having the PTTW expire in less than a year from the date it was issued, the MOE attempts to prevent the PTTW from being considered a Class I Instrument on which leave to appeal can be sought pursuant to the *EBR*. FORCE disputes this.
5. FORCE makes this application to the Environmental Review Tribunal (the "Tribunal") for:
 - (a) an Order granting FORCE leave to appeal the decision of the Director, MOE pursuant to section 34 of the *Ontario Water Resources Act*, to issue to St. Marys the PTTW; and
 - (b) an Order for a stay of the PTTW until such time as the Tribunal determines whether FORCE should be granted leave to appeal the PTTW.

6. FORCE submits that its application should be granted for the following reasons:
 - (a) it appears that there is good reason to believe that no reasonable person, having regard to the relevant law and to any government policies developed to guide decisions of that kind, could have issued the PTTW;
 - (b) it appears that the decision to issue the PTTW could result in significant harm to the environment; and
 - (c) if the PTTW is not stayed, St. Marys could continue its water taking activities, which will have the effect of rendering moot FORCE's right to seek leave to appeal pursuant to the *EBR*.

II- FACTS

THE PARTIES

7. FORCE is a federally-registered not for profit corporation with its registered head office in Freelon, Ontario. As a citizen-based advocacy organization, it is comprised of, and supported by, members of rural communities located in the City of Hamilton, and at large in the Province of Ontario, which are concerned with the impact of industrial activity in rural centers on the environment, including the effect of industrial activity on drinking water sources.
8. FORCE is funded by contributions from the public. None of the members of FORCE, including members of its Steering Committee and its Board of Directors, receive compensation for their involvement in FORCE.
9. FORCE was formed in June, 2004 to protect the environment in the face of a large-scale aggregate development in Northeast Flamborough, a rural community located within the amalgamated City of Hamilton. This proposed development involves the removal of aggregate from below the established water table.
10. St. Marys, a corporation which is in the business of manufacturing cement and producing aggregate, owns the property on which the proposed aggregate extraction operations are to be developed (the "Property"). St. Marys does not yet have the approvals which it requires to establish these operations.
11. The majority of residents within the one kilometre radius of the Property are FORCE supporters, and draw their well water, which is their only drinking water source, from the same aquifer from which St. Marys is expected to draw water for its proposed quarry operations.

THE PROPERTY

12. The Property is bounded by residential development to the north, residential development and agricultural land to the west, forest to the east, and Concession Road 11 to the south.

Reference: Volume 1, Hydrogeological Level 2 Report prepared by Gartner Lee for Lowndes Holdings Corp., dated June, 2005 (the "Volume 1 Report"), pg. 16, Tab 1.

13. The Property contains significant provincially, regionally and municipally designated natural features that contribute to the biological diversity and ecological integrity of the site and the broader region.

Reference: Preliminary Report of the Environmental Features and Potential Impacts associated with the Proposed Lowndes Quarry, City of Hamilton, prepared for FORCE by North-South Environmental Inc., June, 2005, pg. v, Tab 2.

14. The Property is traversed by Mountsberg Creek and Flamboro Creek which are tributaries of Bronte Creek. Importantly, a large portion of the Property lies within the Mountsberg Wetlands and Wildlife Centre Environmentally Significant Area ("ESA") and the Carlisle North Forests ESA, which contain the provincially significant Lower Mountsberg Creek Wetland Complex.

Reference: Report to Resource Planning/Water Management Advisory Committee from Brenda Axon dated October 27, 2004, Tab 3.

15. The Property is also located within the Natural Heritage System of the Greenbelt.

Reference: Maps, Greenbelt Plan, 2005, Tab 4.

Reference: Map prepared by FORCE, Tab 4.

16. With respect to the bedrock geology of the Property, its primary bedrock formation is the Amabel Formation.

Reference: Volume 1 Report, pg. 18, Tab 2.

17. According to Gartner Lee Limited ("Gartner Lee"), an environmental consulting and engineering firm retained by the previous owner of the Property and now, St. Marys, to conduct hydrogeological studies of the Property, residents use the Amabel Formation aquifer (the "Aquifer") as a source of water supply for domestic and farm use. Gartner Lee determined so time ago that there were a total of 44 water wells within one kilometer of the Property boundaries. St. Marys, however, recently conducted a survey of 119 well owners in the area. All of the wells, with the exception of one, are completed in the bedrock. The local members of FORCE, and those they represent, take their drinking water from the Aquifer.

Reference: Volume 1 Report, pg. 24, Tab 2.

Reference: Memorandum re: Door to Door Survey prepared by Lotowater Technical Services Inc., dated July 10, 2008, Tab 5.

18. In addition, the community of Carlisle, which is located 3.5 kilometers from the Property, also draws water from the Aquifer. According to a study conducted by Stantec in 2004, 539 of the 805 lots in Carlisle are serviced by a municipal well supply which relies on the Aquifer.

Reference: Volume 1 Report, pg. 26, Tab 2.

THE PROPOSED PROJECT

19. St. Marys proposes to establish a quarry in the Amabel Formation dolostone from which aggregate will be taken (the “Proposed Quarry”). The Proposed Quarry is to be located on Part of Lot 1, and Lots 2 and 3, Concession 11, geographic Township of Flamborough, which is now the City of Hamilton. A map indicating the location of the Proposed Quarry is provided at Tab 6 hereto.

Reference: Volume 1 Report, pg. 1, Tab 2.

Reference: Map prepared by Gartner Lee, Tab 6.

20. The Amabel Formation dolostone is described as a high quality aggregate resource, which, at the site, is 27 meters to 40 meters thick. The proposed quarrying operations would result in an open excavation that will extend below the water table. To develop the site, therefore, St. Marys will be required to obtain a below-water quarry licence under the *Aggregate Resources Act* and to seek amendments to the former Township of Flamborough Official Plan and Zoning By-Law.

Reference: Volume 1 Report, pg. 1, Tab 2.

21. The dewatering operations associated with the Proposed Quarry are expected to lower the water table in the immediate area of the quarry face by about 31 meters. Gartner Lee has indicated that unmitigated dewatering associated with the development of the quarry is predicted to drawdown groundwater levels in the vicinity of the quarry, which will in turn reduce the groundwater flux (baseflow) to the wetlands of the Lower Mountsberg Creek Wetland Complex, and could potentially affect local residential wells by reducing the available water column. Gartner Lee has described these impacts as “unacceptable”.

Reference: Revised Work Plan for the Evaluation of Groundwater Recirculation System, Proposed Mountsberg Quarry, Prepared for St. Marys Cement by Gartner Lee Limited, September 2006 (“Revised Work Plan”), pg. 4, Tab 7.

Reference: Volume 1 Report, pgs. 38, 48, 55, 58, Tab 2.

22. Further, the water generated during dewatering would need to be discharged to Mountsberg Creek, which could alter the flow and quality of the surface water.

Reference: Revised Work Plan, pg. 4, Tab 7.

Reference: Volume 1 Report, pg. 58, Tab 2.

23. To mitigate these effects, St. Marys proposes using a Groundwater Recirculation System (“GRS”). Conceptually, the GRS would allow for the release of groundwater and surface water collected within the quarry into a trench from which it would infiltrate into the Aquifer with a goal of sustaining the groundwater level between the quarry and the adjacent wetland features and nearby residential water supplies.

Reference: Revised Work Plan, pg. 4, Tab 7.

24. As explained below, the GRS has never been used anywhere in the manner proposed by St. Marys for the Proposed Quarry. The application of the GRS has been evaluated only through the application of a computer model. Recognizing that there were limitations of the model application, Gartner Lee determined that it would be important to test the GRS in the field. As such, it proposed to conduct pumping tests to simulate dewatering in proximity to the quarry face, and to construct a segment of the proposed GRS through which the extracted water is to be reintroduced to the Aquifer.

Reference: Revised Work Plan, pg. 4, Tab 7.

THE PTTW APPLICATION

25. On September 28, 2006, St. Marys applied to the MOE pursuant to section 34 of the *Ontario Water Resources Act* (the "OWRA") for a permit to take water in order to allow it to conduct pumping tests for the proposed GRS (the "Application").
26. In the letter submitted to the MOE with the Application, Gartner Lee indicated that the intent of the "GRS Pilot Scale" test is to demonstrate the ability of the mitigation system to control groundwater levels in proximity to the Proposed Quarry.

Reference: Letter from Gartner Lee to the MOE dated September 28, 2006 ("Application Letter"), pg. 2, Tab 8.

27. St. Marys proposed to conduct three separate pumping tests using three wells. These tests were as follows:

- (a) **Pumping Test 1:** This initial test is intended to assess the dewatering response during pumping without mitigation. During this test, water is to be pumped from wells at an increasingly higher rate with monitoring of adjacent observation wells. The water that is pumped out of the wells is to be discharged to Tributary A of Mountsberg Creek. As indicated by Gartner Lee, because the drawdown induced during this testing is un-mitigated, the response will be indicative of a "worst case" impact and provide information on the potential magnitude of the dewatering associated with the quarry development. Gartner Lee predicted that any complaints of interference with private well supplies would most likely occur during this initial test;

Reference: Application Letter, pg. 3, Tab 8.

Reference: Revised Work Plan, pg. 9, Tab 7.

- (b) **Pumping Test 2:** The purpose of this test is to assess the effectiveness of an open trench cut into bedrock. The test would involve the discharge of extracted water to the open trench. Essentially, the first pumping test would be repeated, but with the discharge from the wells released to the trench to simulate the perimeter recharge system. During this test, it may be necessary to direct any overflow to Tributary A of Mountsberg Creek to balance recharge with the pumping rate; and

Reference: Application Letter, pg. 3, Tab 8.

Reference: Revised Work Plan, pg. 10, Tab 7.

- (c) **Pumping Test 3:** The purpose of this test is to determine the influence of open boreholes on groundwater recharge through the trench. In preparation for this test, therefore, open boreholes will be installed along the axis of the trench. The pumping test will proceed like the second test, with the discharge from the wells to be pumped in the trench bearing the boreholes.

Reference: Application Letter, pg. 3, Tab 8.

Reference: Revised Work Plan, pg. 10, Tab 7.

THE REGISTRY POSTINGS

28. On October 13, 2006, the MOE posted an Instrument Proposal Notice (the "Instrument Proposal") on the Registry, notifying the public of the Application. The Instrument Proposal was posted for a 49-day public review and comment period starting October 13, 2006 and ending on December 1, 2006. In total, the MOE received 532 comments from the public on the Instrument Proposal.

Reference: Registry Posting, October 13, 2006, EBR Registry Number IA06E1293, Tab 9.

Reference: Registry Posting, July 8, 2008, EBR Registry Number IA06E1293, Tab 10.

29. On November 30, 2006, FORCE made submissions to the MOE in which it objected to the PTTW being granted in the manner proposed. FORCE's submissions were supported by reports prepared by experts retained by FORCE. FORCE objected to the PTTW being issued on the following basis:

- (a) The proposed testing is premature. There is substantial outstanding work required to understand the watershed, its vulnerabilities, risks, and implications for source water protection. Further, there is work required on the overall proposed quarry application. This body of work should be substantially advanced, if not completed, before a test evaluating a mitigation system for the proposed development in the watershed is considered;
- (b) Permitting the PTTW as it stands and in light of outstanding work in this watershed would not respect the duty to protect groundwater and evaluate risks first; and
- (c) The GRS being proposed for the Proposed Quarry is still unproven technology without any precedent in the world. Permitting a pilot test of this scale under these circumstances, and in the absence of more complete understanding of the watershed, would be using the community as a laboratory experiment.

Reference: FORCE Submissions to the Ministry of the Environment dated November 30, 2006, pg. 3, Tab 11.

30. Conservation Halton and the City of Hamilton also submitted comments to the MOE with respect to the Instrument Proposal. Both Conservation Halton and the City of Hamilton expressed serious concerns with St. Marys' proposal, including the potential impact on

adjacent wells and water users. The City of Hamilton Public Health Services also sent a letter to the MOE in which it expressed concerns over the pumping tests

Reference: Letter from City of Hamilton to the MOE dated November 30, 2006, Tab 12.

Reference: Letter from Conservation Halton to the MOE dated November 30, 2006, Tab 12.

Reference: Letter from City of Hamilton Public Health Services to the MOE, dated October 26, 2007, Tab 12.

31. On April 16, 2008, St. Marys held a public information session with respect to their PTTW. Several hundred members of FORCE and the community attended the meeting.

32. On May 7, 2008, the MOE posted in draft the PTTW which it was proposing to issue to St. Marys. The MOE invited the public to make comments on this draft.

Reference: Registry Posting, May 7, 2008, EBR Registry Number 010-3469, Tab 13.

33. On May 23, 2008, FORCE made submissions to the MOE in which it again objected to the PTTW being issued in the manner proposed. Again, FORCE's submissions were supported by a report prepared by an expert retained by FORCE. The crux of FORCE's submission was that:

(a) the PTTW is premature, in light of the fact that the local Source Protection Committee is in the very early stages of the work it is mandated to do pursuant to the *Clean Water Act, 2006* (the "*Clean Water Act*");

(b) the pumping tests, as proposed, do not mimic the full quarry operations, and cannot, therefore, accurately predict the impact of the GRS; and

(c) the GRS is unproven technology.

34. On July 8, 2008, almost two years after St. Marys submitted the Application, the MOE granted the PTTW to St. Marys for water taking from bedrock well TW 14 located at Lot 3, Concession 11, East Flamborough, Hamilton. The MOE posted its decision to issue the PTTW on the Registry on July 8, 2008 as an "Instrument Decision Notice".

Reference: Registry Posting, July 8, 2008, EBR Registry Number IA06E1293, Tab 10.

Reference: Permit to Take Water, No. 8461-7CFLG5, dated July 8 ("PTTW"), 2008, Tab 14.

35. The July 8, 2008 Registry posting indicated, however, that no leave to appeal provisions are provided on the decision, as the permit that was issued is for less than one year, and is, therefore, no longer considered a classified instrument under the *EBR*.

Reference: Registry Posting, July 8, 2008, EBR Registry Number IA06E1293, Tab 10.

THE PERMIT TO TAKE WATER

36. The PTTW was issued for a duration of approximately 11 months and 3 weeks (approximately 357 days).

Reference: PTTW, s. 3.1, Tab 14.

37. The PTTW authorizes St. Marys to conduct three pumping tests, each expected to last for a period of six to eight days. Approval was given at the time the PTTW was issued for the first of these tests.

Reference: PTTW, s. 3.3, Tab 14.

38. St. Marys is required to make reasonable efforts to identify all wells within the area of the anticipated potential cone of influence, or within 1000 meters of the test site, whichever is greater. At least seven days prior to beginning the pumping test, St. Marys is required to provide written notification to the owners of these wells.

Reference: PTTW, s. 4.1, Tab 14.

39. St. Marys began its first pumping test on July 21, 2008, less than two weeks after the PTTW was issued, despite having been served with FORCE's application for leave to appeal, and having received a letter on behalf of FORCE requesting that the testing not be commenced until the issues before the Tribunal were resolved.

Reference: Notice from St. Marys to Graham Flint dated July 14, 2008, Tab 15.

Reference: Letter from Davis LLP to St. Marys dated July 18, 2008, Tab 16.

40. Some residents who should have received a notice of testing from St. Marys pursuant to the conditions of the PTTW complained to the MOE that no such notice was provided to them.

Reference: Letter from Christopher Wilson to the MOE, Hamilton, dated July 18, 2008, Tab 17.

III-ISSUES AND THE LAW

41. There are two issues which arise on this application:
- (a) Does FORCE Have Standing to Seek Leave to Appeal?
 - (b) Does FORCE meet the test for leave to appeal under section 41 of the *EBR*?
42. FORCE submits that it has standing to seek leave to appeal, and that it meets to test for leave to appeal under section 41 of the *EBR*.

ISSUE 1: FORCE HAS STANDING TO SEEK LEAVE TO APPEAL

43. Standing to seek leave to appeal is set out in subsection 38(1) of the *EBR* which states that:

Section 38(1). Any person resident in Ontario may seek leave to appeal from a decision whether or not to implement a proposal for a Class I or II instrument of which notice is required to be given under section 22, if the following two conditions are met:

1. The person seeking leave to appeal has an interest in the decision.
2. Another person has a right under another Act to appeal.

Reference: *EBR*, s. 38(1), Tab 18.

44. There are, therefore, four criteria which have to be considered in determining whether FORCE has standing to seek leave to appeal:
- (a) the party seeking leave to appeal must be a person resident in Ontario;
 - (b) the decision being appealed from must be a decision whether or not to implement a proposal for a Class I or II instrument of which notice is required to be given under section 22 of the *EBR*;
 - (c) the person seeking leave to appeal has an interest in the decision; and
 - (d) another person has a right under another Act to appeal.
45. FORCE respectfully submits that it meets all of these criteria.

FORCE is a Person Resident in Ontario

46. FORCE is a federally-incorporated not for profit corporation that has its registered head office in Freelon, Ontario. FORCE's members, and supporters, reside in Ontario in the vicinity of the Property.

Reference: Corporate Profile of FORCE, Tab 19.

47. As an incorporated body, force is a "person" within the meaning of subsection 38(1) of the *EBR*.

Reference: *Interpretation Act*, R.S.O. 1990, c. I.11, s. 29(1), Tab 20.

The Decision is a Class I Instrument

48. FORCE submits that the PTTW is a Class I instrument of which notice is required to be given under section 22 of the *EBR*.
49. At the request of the Tribunal, separate submissions are being made by the parties with respect to this issue. FORCE relies herein on its submissions to the Tribunal on this issue.

Reference: Letter from the Environmental Review Tribunal to Davis LLP dated July 18, 2008, Tab 21.

FORCE Has an Interest in the Decision

50. Pursuant to subsection 38(3) of the *EBR*, the fact that a person has exercised a right given by the *EBR* to comment on a proposal is evidence that the person has an interest in the decision on the proposal.

Reference: *EBR*, s. 38(3), Tab 18.

51. As noted above, FORCE submitted comments to the MOE on November 30, 2006 on the Instrument Notice. In addition, FORCE submitted comments on May 23, 2008 on the draft PTTW, notice of which was posted on the Registry on May 7, 2008.
52. Further, FORCE, as a representative of community members residing in the vicinity of the Property, has an interest in activities in which St. Marys engages on the Property that will impact neighboring properties, including impacts on the drinking water supply.

St. Marys has a Right Under Another Act to Appeal

53. Pursuant to section 100 of the *OWRA*, St. Marys has the right to appeal the PTTW.

Reference: *OWRA*, s. 100(3), Tab 22.

54. Based on the foregoing, FORCE meets all four criteria for leave to appeal pursuant to subsection 38(1) of the *EBR* and has, therefore, standing to seek leave to appeal the Director's decision to issue the PTTW.

ISSUE 2: FORCE MEETS THE TEST FOR LEAVE TO APPEAL

55. The test for leave to appeal is a two-part test which is set out at section 41 of the *EBR* as follows:

Section 41. Leave to appeal a decision shall not be granted unless it appears to the appellate body that,

(a) there is good reason to believe that no reasonable person, having regard to the relevant law and to any government policies developed to guide decisions of that kind, could have made the decision; and

(b) the decision in respect of which an appeal is sought could result in significant harm to the environment.

Reference: *EBR*, s. 41, Tab 18.

56. The leading case on the interpretation of this test is the recent case of the Divisional Court in *Lafarge Canada Inc. v Ontario (Environmental Tribunal)* ("*Lafarge*"). Although the test was described in that case as "stringent", the Divisional Court stated that the stringency of the test has to be balanced against the stated intent of the *EBR* to enable the

people of Ontario to participate in the making of environmentally significant decisions by the Government of Ontario.

Reference: *Lafarge Canada Inc. v. Ontario (Environmental Tribunal)*, [2008] O.J. No. 2460 (Div. Ct.) at paras. 41 and 42 [Quicklaw], Tab 23.

57. The intent of the legislature to enable the public to participate in environmentally significant decisions supports an interpretation of section 41 that facilitates fostering access to justice in environmental matters and permitting appeals where the balance of the test in section 41 has been met.

Reference: *Lafarge, supra* at para. 42, Tab 23.

58. With respect to the standard of proof for the leave to appeal test, the Divisional Court in *Lafarge* found that the standard is less than a balance of probabilities. The Court stated that at the leave to appeal stage, the appropriate standard of proof is an evidentiary one, which it explained as leading sufficient evidence to establish a *prima facie* case, or showing that the appeal has “preliminary merit”, or that a good arguable case has been made out, or that there is a serious question to be tried.

Reference: *Lafarge, supra* at para. 45, Tab 23.

59. Importantly, the Court in *Lafarge* made it clear that it is not the function of the Tribunal member who is giving leave to determine the actual merits of the appeal; rather, the member must determine whether the threshold in section 41 has been met.

Reference: *Lafarge, supra* at para. 45, Tab 23.

60. Based on the foregoing, the Divisional Court concluded that the test should be applied as follows:

The question under the **first branch** of s. 41(a) is whether those seeking leave have put forth a *prima facie* case that “no reasonable person having regard to the relevant law and to any government policies developed to guide decisions of that kind, could have made the decision.” Put another way, this part of the test mandates reasonable persons to have regard to relevant law and policies and the factual record. If there has been a failure by the Directors to consider relevant law and policies, then, given the effect of the failure to do so, the Tribunal may conclude that there is good reason to believe that no reasonable person could have made the decision in issue.

The **second branch** of the test under section 41 requires that a *prima facie* case be made to show that the “decision in respect of which an appeal is sought *could* result in significant harm to the environment” (emphasis added). The question for the Tribunal then becomes whether the decision in question has the potential to cause significant environmental harm. [emphasis added]

Reference: *Lafarge, supra* at paras. 46-47, Tab 23.

- 61 . FORCE submits that it has a *prima facie* case that:
- (a) no reasonable person, having regard to the relevant law and to any government policies developed to guide decisions of that kind, could have issued the PTTW; and
 - (b) the PTTW could result in significant harm to the environment.

Branch 1 - No Reasonable Person Could Have Made the Decision

62. With respect to the first branch of the section 41 test for leave to appeal, FORCE submits that there are three reasons why no reasonable person could have issued the PTTW:
- (a) the Director failed to take into account the MOE's Statement of Environmental Values ("SEV"), which included a failure to take into consideration:
 - (i) the ecosystem approach;
 - (ii) the precautionary approach; and
 - (iii) resource conservation;
 - (b) the Director failed to take into account the *Clean Water Act*; and
 - (c) the Director's decision to issue the PTTW discriminates against communities in the vicinity of the Property.

a) Director Failed to Take into Account the Statement of Environmental Values

63. The *EBR* requires the MOE to prepare an SEV which explains,
- (a) how the purposes of the *EBR* are to be applied when decisions that might significantly affect the environment are made by the MOE; and
 - (b) how considerations of the purposes of the *EBR* will be integrated with other considerations, including social, economic and scientific considerations, that are part of the decision-making in the MOE.

Reference: *EBR*, s. 7, Tab 18.

64. The *EBR* also requires that the Minister take every reasonable step to ensure that the SEV is considered whenever decisions that might significantly affect the environment are made in the MOE.

Reference: *EBR*, s. 11, Tab 18.

65. The MOE's SEV sets out, in its purposes, guiding principles which are to be used by the MOE to apply to the environmental values set out in the purposes of the *EBR* when

making decisions that might significantly affect the environment. These principles are as follows:

- (a) the ecosystem approach, which requires the MOE to consider: the cumulative effects on the environment; the interdependence of air, land, water and living organisms; and the interrelations among the environment, the economy and society;
- (b) environmental protection, which requires the MOE to exercise a precautionary approach in its decision-making; and
- (c) resource conservation, which requires, *inter alia*, the MOE to promote water conservation.

Reference: Statement of Environmental Values for the Ministry of the Environment (the “MOE SEV”), Tab 24.

66. The Divisional Court in *Lafarge* held that it is reasonable, having regard to sections 7 and 11 of the *EBR*, for the Tribunal to regard the MOE SEV as relevant policy which should guide the decisions of Directors. The Court held that the Tribunal in that case, in determining whether leave to appeal should be granted, had been reasonable in concluding that there was good reason to believe that no reasonable person could have made the decisions to issue the permits at issue without applying an ecosystem approach and a precautionary approach to its decisions.

Reference: *Lafarge*, *supra* at paras. 46-47, and 60, Tab 23.

67. FORCE submits that the Director in this case did not have regard to the SEV when making the decision to issue the PTTW because he did not, as explained below, apply the ecosystem approach, the precautionary approach or the principle of resource conservation. Having failed to take into account a policy which was relevant, the Director’s decision to issue the PTTW was, therefore, unreasonable.

i) Director Failed to Consider Ecosystem Approach

68. The MOE’s SEV contains a commitment that MOE staff will consider and apply an “eco-system approach” when making environmentally significant decisions. The SEV states as follows:

The Ministry will adopt an eco-system approach to environmental protection and resource management. This approach views the eco-system as composed of air, land, water and living organisms, including humans, and the interactions among them.

When making decisions, the Ministry will consider the cumulative effects on the environment; the interdependence of air, land, water and living organisms; and the interactions among the environment, the economy and society.

Reference: MOE SEV, Tab 24.

69. The PTTW fails to properly take into account the eco-system approach.
70. Brent Tegler, Ph.D, of North-South Environmental Inc., in a letter report to FORCE dated November 21, 2006, states that, “the proponent should not be granted a ...PTTW to conduct hydrogeologic tests related to a GRS prior to conducting full environmental cost accounting...”.

Reference: Letter from North South Environmental Inc. to FORCE, dated November 21, 2006, pg. 1, Tab 11.

71. Dr. Tegler is of the view that full environmental cost accounting includes analysis of the following:

- worse case scenarios involving a failure of the GRS due to power failure, equipment failure, declining capacity of the GRS to recycle due to multiple physical, biological and chemical factors and the resulting social and ecological impacts;
- the cumulative effect of re-circulation on the quality of groundwater quality including such issues as temperature, dissolved solutes and Ph and the impact of these cumulative changes of groundwater quality to the efficacy of continuous operation of the GRS and the impact of recycled groundwater to surrounding wells, wetlands and surface water particularly in light of the fact that this dewatering mitigation approach is not represented in the literature; and
- For the proposed simulation approved by the PTTW to be a true test of actual quarry operation there is a need to discuss the scale of dewatering required for actual quarry operation under a variety of conditions including seasonal variation, extreme rainfall/snowmelt events, impact of climate change and size of quarry face.

Reference: Letter Report of North-South Environmental Inc. dated November 21, 2006, pgs. 1-2, Tab 11.

72. The pumping test to be undertaken pursuant to the PTTW proposes no assessment of the sensitivity or resilience of natural features located within close proximity of the test site in relation to the magnitude or duration of groundwater and/or surface water level fluctuations or water quality changes to which they may be exposed. Such issues as seasonal sensitivities of breeding fish and amphibians and differing groundwater and surface water temperatures should be explored before the pumping tests are done.

Reference: Letter Report of North-South Environmental Inc. dated November 21, 2006, pg. 3, Tab 11.

73. An eco-system approach (a cumulative effects analysis), cannot be completed without all of this information and all of the circumstances studied which would allow for the acquisition of that information.

ii) Director Failed to Consider Precautionary Approach

74. The MOE's SEV contains a commitment that MOE staff will consider and apply the "precautionary principle" when making environmentally significant decisions. It provides as follows:

The Ministry's environmental protection strategy will place priority first on preventing and second on minimizing the creation of pollutants that can damage the environment. When the creation of pollutants cannot be avoided, the Ministry's priority will be first to prevent their release to the environment and second to minimize their release.

Reference: MOE SEV, Tab 24.

75. The MOE SEV requires the Ministry to exercise a precautionary approach in its decision-making. Especially when there is uncertainty about the risk posed by particular pollutants or classes of pollutants, the Ministry will exercise caution in favour of the environment.

Reference: MOE SEV, Tab 24.

76. The Tribunal has recognized the precautionary principle in *Thomson v. Ontario*. The Tribunal held as follows:

If there could be significant harm resulting from the decision, then give benefit of the doubt to the environment and allow another look through an appeal.

Reference: *Thomson v. Ontario*, [1998] O.E.A.B. No. 23, at para. 26 [Quicklaw], Tab 25.

77. In 2006, the Government of Ontario passed the *Clean Water Act*. The significance of the *Clean Water Act* to the PTTW is discussed more fully in paragraphs 88 to 91 and following below. The purpose of the *Clean Water Act* is to protect existing and future sources of drinking water. It does so by creating Source Protection Committees and giving these committees the responsibility of establishing and administering Source Protection Plans which are to, *inter alia*, ensure that an activity never becomes a significant drinking water threat.

78. The *Clean Water Act* takes, therefore, a precautionary approach to the protection of existing and future sources of drinking water.

79. In the circumstances of this case, by issuing the PTTW without consulting the source protection committee or awaiting the source protection plan, or any of the regulated interim work product such as the terms of reference and the assessment report, to determine whether issuing the PTTW is appropriate, the Director did not take a precautionary approach to the protection of the Aquifer.

80. FORCE submits that a prudent or judicious exercise of the precautionary principle would not have resulted in the issuance of the PTTW at this time, particularly in light of the unproven mitigative measures (the GRS), on which the water taking by St. Marys relies.

iii) Director Failed to Consider Resource Conservation

81. The MOE SEV made pursuant to the EBR contains a commitment that MOE staff will promote “resource conservation” when making environmentally significant decisions. The SEV states as follows:

The Ministry will seek to ensure a safe, secure and reasonably priced supply of energy in an environmentally sustainable manner and will place priority on improving energy efficiency. It will also promote energy and **water conservation**, as well as encourage the use of the three Rs - Reduction, Reuse, and Recycling - to divert materials from disposal. [emphasis added]

Reference: MOE SEV, Tab 24.

82. In the circumstances of this case, FORCE submits that the decision to issue the PTTW failed to properly take the principle of resource conservation into account.
83. Gartner Lee underestimates the concentration of contaminants in water quality from PTTW discharge waters. Intera Engineering Limited (“Intera Engineering”) predicts these discharge waters will contain contaminants which exceed provincial water quality objectives for iron, aluminum and zinc.

Reference: Intera Engineering Limited Letter Report, dated November 19, 2007, Tab 26.

84. Intera Engineering also expresses concern for poorly constructed monitoring wells which are to provide the hydrogeologic characterization from the pumping tests, bringing into question the reliability of predictions of both quarry and GRS drawdowns and potential for off-site impact.

Reference: Intera Engineering Limited Letter Report dated May 31, 2008 to FORCE, Tab 27.

85. Even at the limited groundwater pumping rates permitted in the PTTW, the water discharged from this pumping test to Mountsberg Creek under summer conditions of low flow, may pose a threat to fisheries within Mountsberg Creek which is a known habitat for spawning of brown trout and brooke trout.

Reference: Intera Engineering Limited Letter Report dated May 31, 2008 to FORCE, Tab 27.

86. The magnitude and radial extent of the drawdowns predicted for the GRS pilot tests have been underestimated which may impact neighbouring water well users.

Reference: Intera Engineering Limited Report dated April 30, 2008, Tab 28.

87. The Carlisle municipal well system draws its water from the Aquifer and is always at risk during low flow summer conditions. The GRS pumping tests approved by the PTTW will further stress that municipal water supply system.

Reference: City of Hamilton Water Restriction Notice for Carlisle, 2006, Tab 29.

Reference: City of Hamilton Water Restriction Notice for Carlisle, 2007, Tab 29.

b) The Director Failed to take into Account the Clean Water Act

88. As noted above, the *Clean Water Act* calls for the establishment of source protection committees which are to develop source protection plans. The purposes of a Source Protection Plan is to, *inter alia*, identify and protect against threats to drinking water sources.
89. Halton-Hamilton has established a Source Protection Committee. It has just completed consultation on draft terms of reference. The source protection plan, and the regulated intermediary work product, has not yet been completed. Technical analyses by the Source Protection Authority remain a work in progress. Sub-water shed evaluation has been called for in the Carlisle well head protection area, where a number of municipal wells are located.
90. Because the *Clean Water Act* and the work which is completed pursuant to it seek to protect existing and future water supplies, such as the Aquifer, the MOE must have regard to that Act when issuing permits to take water, which have the possibility of affecting such water supplies.
91. As indicated above, section 41 of the *EBR* will grant leave to appeal a decision where the decision-maker has not had regard to relevant law. FORCE submits that the *Clean Water Act* is relevant law and that the Director in issuing the PTTW did not have regard to such law.

c) The Decision of the Director Discriminates Against Surrounding Communities

92. In *Lafarge*, the Divisional Court found that it was within the realm of reasonableness for the Tribunal to conclude that it would be discriminatory to expose a community to potential environmental impacts, when no other Ontario community is subject to such impacts.

Reference: *Lafarge, supra* at paras. 67, Tab 23.

93. As discussed above, it was determined that the adverse effect of the taking of water by St. Marys for the Proposed Quarry must be mitigated. As also indicated above, the PTTW is designed in part to permit the assessment of the GRS mitigation measures. Kenneth Raven, P. Eng., P. Geo., principal of Intera Engineering, notes in his letter report of November 26, 2006 that, "there are no identifiable examples of successful application of GRS in deep fractured bedrock settings as exits at the proposed Mounstberg Quarry".

Reference: Letter Report of Intera Engineering Ltd. dated November 26, 2006, p. 7, Tab 11.

94. The PTTW allows the taking of water subject to mitigation measures which, reportedly, have never been successfully tested. Subjecting the Aquifer relied on by members of FORCE and several others as their source of drinking water to such experimental measures threatens that aquifer, even during the testing phases, and, therefore, discriminates against FORCE members and others who rely on the Aquifer.
95. In the circumstances, the PTTW should not have been issued because it relies on unproven mitigation measures to protect the Aquifer.

Branch 2 - Decision Could Result in Significant Harm to the Environment

a) The Test For Assessing Significant Environmental Harm

96. "Harm" is defined at section of the *EBR* as follows:

"Harm" means any contamination or degradation and includes harm caused by the release of any solid, liquid, gas, odour, heat, sound vibration or radiation.

Reference: *EBR*, s. 1, Tab 18.

97. The word "significant" is not defined in the *EBR*. The Environmental Appeal Board (as it then was) has stated that because of the inherent subjectivity of the concept of "significant harm", the Board should attempt to use a test that does not rely on the individual view of its members as to what may be significant. Where possible, significance should be determined by reference to scientific principle and evidence of legal criteria.

Reference: *Residents Against Company Pollution Inc., Re*, [1996] O.E.A.B. No. 29, at para. 40, Tab 30.

98. FORCE submits that the Tribunal should take a similar "objective approach" for assessing the significance of the environmental harm arising from the issuance of the PTTW to St. Marys.

(b) The Potential For Significant Environmental Harm

99. A PTTW which lasts for one year or more is prescribed by O.Reg.681/94 made pursuant to the *EBR* as a Class I Instrument. For all intents and purposes, the PTTW is a Class I instrument. By definition, a Class I instrument is environmentally significant. It is, therefore, appropriate to presume that it has the potential to cause environmental harm within the meaning of section 41(b) of the *EBR*.
100. In addition, as described below, by any objective standards, taking groundwater in the amounts proposed by St. Marys dependant on the unproven mitigation measures is a significant environmental activity with the potential for both short term and long term adverse effects on the environment.

(c) The Existing Groundwater Regime

101. Residential water supplies in the area of the Proposed Quarry are from private wells. Review of MOE water well records shows that almost all wells are drilled into the bedrock to an average depth of about 15 metres. Individual residences and several subdivision developments are located adjacent or proximate to the Proposed Quarry.

Reference: Letter Report of Intera Engineering Limited dated March 28, 2005, Tab 31.

102. There are several residential developments within 500 metres, including an estate residential development of 13 lots and another of 19 lots. There is a rural estate residential condominium of 76 and 31 residential units respectively. A seasonal camp ground-trailer park of 185 sites and a 14 house development are located approximately 1,000 metres from the proposed quarry.

Reference: Letter Report of Intera Engineering Limited dated March 28, 2005, Tab 31.

103. Provincially significant wetlands comprising an area of 21 hectares occupy the northern and southeastern parts of the Property. There are also several streams and creeks within 250 metres of the Proposed Quarry. As noted above, there are also ESA's on the Property.

Reference: Letter Report of Intera Engineering Limited dated March 28, 2005, Tab 31.

104. As also noted above, the Carlisle municipal water supply wells, located approximately 3.5 kilometres from the proposed quarry, draw drinking water from the Aquifer.

Reference: Letter Report of Intera Engineering Limited dated March 28, 2005, Tab 31.

105. Draw downs that will occur in response to Proposed Quarry dewatering could adversely affect water levels in nearby residential and communal water supply wells, the local provincially significant wetlands and ESAs and nearby creeks and streams. Proposed measures to mitigate quarry-induced draw downs are novel and may be largely ineffective.

Reference: Letter Report of Intera Engineering Limited dated March 28, 2005, Tab 31.

106. It is submitted, as more fully discussed below, that these same conclusions apply to the pumping tests envisaged by the PTTW.

(d) The Pumping Test Approved by the PTTW

107. The PTTW approves St. Marys' request to do pumping tests spread over almost a year to simulate conditions which are to exist in quarrying operations. In addition, the PTTW allows for the testing of the novel mitigation measures of the GRS.

(i) Pumping Rates

108. The PTTW approves pumping rates which are significantly lower than originally anticipated by St. Marys. This limited pumping rate combined with other issues which will be described more fully below, may not simulate quarry activities and create the targeted groundwater draw downs. Any PTTW, therefore, issued for the Proposed Quarry based on these unrepresentative pumping tests could result in the dewatering of the groundwater aquifer causing significant harm to the natural environmental features described above and causing significant adverse effects on the municipal and private wells in the residential communities mentioned earlier.

Reference: Letter Report of Intera Engineering Limited dated May 31, 2008, Tab 27.

109. In general, significant concerns have been raised with respect to the probative value and reliability of the predictions taken from the pumping tests. That in itself could result in significant harm to the environment as could any full scale operations based on the results of the pumping test.

Reference: Letter Report of Intera Engineering Limited dated May 31, 2008, Tab 27.

110. Even these pumping rates would represent a significant percentage of the low flow (summer) conditions in Mountsberg Creek. This suggests that groundwater returned to Mountsberg Creek after it is pumped from the aquifer may pose a threat to fisheries within Mountsberg Creek, which is known to be spawning habitat for brown trout and brook trout.

Reference: Letter Report of Intera Engineering Limited dated May 31, 2008, Tab 27.

(ii) The Groundwater Recirculation System

111. It has been clear since the beginning of the Proposed Quarry project that mitigative measures would be necessary to offset the adverse impact which would result from the enormous water taking which would be part of the quarrying operations. As a result, consultants for St. Marys developed the GRS, a system which, as described above, is designed to return groundwater to the Aquifer after its use in the Proposed Quarry. Re-circulating quarry water in this way has never been done before anywhere. The PTTW is, in significant part, to evaluate the feasibility of the GRS to mitigate quarry-induced draw downs in the Aquifer and impacts to local streams and environmental features.

Reference: Letter Report of Intera Engineering Limited dated November 26, 2006, Tab 27.

112. Even independent research reports supplied by Gartner Lee in support of the PTTW, identify problems with the GRS related to particulate plugging, chemical precipitation, bio-fouling and air bubble entrainment. These issues may render ineffective the entire GRS approach.

Reference: Letter Report of Intera Engineering Limited dated November 26, 2006, Tab 11.

113. The predictions of water quality within Tributary A and Mountsberg Creek from PTTW discharge underestimate the concentration of pumped water quality parameters and, therefore, impact on surface water. The water quality predictions assume pumped water will be represented by shallow groundwater quality. The more accurate and representative data from actual November 2004 pumping tests of similar duration at the site shows that the GRS pilot test discharge will more probably exceed provincial water quality objectives (“PWQOs”) for iron, aluminum and zinc which may have significant negative impacts on the Aquifer and Mountsberg Creek.

Reference: Letter Report of Intera Engineering Limited dated November 26, 2006, Tab 11.

114. Further studies done by Gartner Lee suggest that certain identifiable hydrogeological features will compromise the functioning of the GRS and, therefore, prove it to be an ineffective mitigation measure. As a result, the taking of water associated with the PTTW and hypothetically thereafter, not being mitigated, could result in significant harm to the Aquifer and surrounding surficial streams and other environmental features.

Reference: Letter Report of Intera Engineering Limited dated November 26, 2006, Tab 11.

115. Modelling of the magnitude and radial extent of water taken pursuant to the PTTW, has been underestimated, which is to say, that the negative impact on the groundwater aquifer and surficial environmental features has also been underestimated. The individual and combined effect of these issues could, therefore, result in significant harm to the environment.

Reference: Letter Report of Intera Engineering Limited dated April 30, 2008, Tab 11.

116. Water discharged from the pump tests may result in significant harm to the fishery in Mountsberg Creek.
117. The pump tests may further stress the Carlisle Municipal water well system.
118. The pump tests approved by the PTTW could, therefore, result in significant harm to the environment.

(e) Summary

119. The short-term pilot scale pumping tests approved by the PTTW will be a poor surrogate for full quarry draw down and hence will not provide data representative of the effects of quarry operations. Given that GRS is an unproven mitigation technology, the results of the pilot scale GRS approved by the PTTW will, also, not be representative of long-term, full scale operation. As a result, it is possible that no mitigation measures may be available to off set the effects of water taken pursuant to the PTTW which could result in significant harm to the environment.

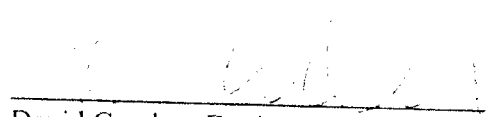
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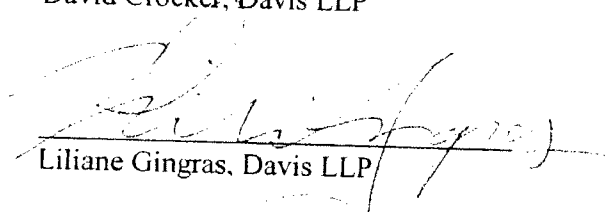
120. FORCE respectfully requests that:

- (a) the PTTW be stayed pending FORCE's application to the Tribunal for leave to appeal pursuant to section 38 of the *EBR* the decision to issue the PTTW; and
- (b) FORCE be granted leave to appeal the Director's decision to issue the PTTW.

ALL OF WHICH IS RESPECTFULLY SUBMITTED

July 22, 2008


David Crocker, Davis LLP


Liliane Gingras, Davis LLP

Solicitors for the Applicant,
Friends of Rural Communities
and the Environment