



GENERAL NOTICE

The documents attached to the following agenda have a legal binding only if they have been confirmed by the Municipal Council.

Please check with the administration to find out if any modification and/or withdrawals of subjects have been made.

YOUTUBE LIVE STREAMING

We highly recommend that all members of the public remain in the comfort and safety of their homes and watch the Council deliberations live streamed on The Nation's YouTube channel.

You can visit [The Nation Municipality's YouTube channel](#) to view the meetings.

Due to the limited number of seats in the Council chambers, we recommend registering to attend a meeting in person. If you wish to reserve a seat, please contact the Deputy Clerk at 613-764-5444 extension 228 or by email at aroy@nationmun.ca.

COMMENTS AND QUESTIONS

If you have any questions or comments relating to an agenda item, please contact the Clerk at 613-764-5444, extension 235, or by email at jbrizard@nationmun.ca.



The Corporation of The Nation Municipality

Agenda

Meeting Information

Meeting Number: 2022-22

Type: Regular

Date: September 26, 2022

Time: 6:00 p.m.

Location: Town Hall, 958 Route 500 West, Casselman

Chair: François St-Amour, Mayor

Prepared by: Aimée Roy, Deputy Clerk

Video: Council meetings are streamed live on [The Nation's YouTube channel](#).

Scheduled Agenda Items:

7:00 p.m.: Engineer's Report for the Adam Municipal Drain

Agenda Items

- 1. Call to order**
- 2. Changes and Additions to Agenda**
- 3. Adoption of Agenda**
- 4. Disclosure of Conflict of Interest**
- 5. Adoption of Minutes of Previous Meetings**
 - 5.1 Minutes of the Regular Council meeting held September 12, 2022
- 6. Adoption of Recommendations of the Municipal Council Committees**
 - 6.1 Minutes of The Nation's Public Library Board meeting held June 9, 2022
- 7. Receiving of Monthly Reports from the Appointed Municipal Officials**

7.1 Guylain Laflèche, Director of Planning

7.1.1 Report BLD-10-2022

Building Permit Deposit Reimbursement

7.2 Nadia Knebel, Treasurer

7.2.1 Report F-21-2022

Tax Receivables

7.2.2 Report F-22-2022

Quarter 3 Results

7.3 Josée Brizard, CAO-Clerk

7.3.1 Support Request

Township of Champlain – Action Champlain

7.4 Eric Leroux, Leroux Consultant, Drainage Superintendent

7.4.1 Emergency Designation for a Drain (6:45 p.m.)

7.4.2 Engineer's Report, Adam Municipal Drain

8. Notice of Proposed Motions

9. Unfinished Business from Previous Meetings

10. Delegations

11. Applications for Prescott-Russell Land Division Committee

12. Municipal By-laws

12.1 By-Law No. 110-2022

To appoint an Integrity Commissioner

12.2 By-Law No. 112-2022

Part Lot Control, 213 Mabel Street

13. Approval of the Variance Report and Accounts Payable

13.1 Accounts Payable

14. Other Business

14.1 Donation Request

Club Le Réveil de Fournier

14.2 Donation Request

Union Culturelle des Franco-Ontariennes

14.3 Donation Request

Nation & Area Senior's

- 14.4 Request for road closure and firefighter participation
St-Isidore Santa Claus Parade (Children's Christmas 2022)

15. Various Monthly Reports

- 15.1 EOHU
Outbreak advisory
- 15.2 Ontario Provincial Police
OPP Billing Presentation

16. Correspondence

- 16.1 AMO, Newsletters
- 16.2 Casselman Cadet Corps 2804, Thank you letter
- 16.3 Leadership féminin Prescott-Russell, Newsletter
- 16.4 South Nation Conservation, Notice of meeting to enlarge SNC
- 16.5 Township of Champlain, Petition endorsement for the Colacem Cement Plant

17. Coming Events

- 17.1 Regular Council Meeting, October 3, 2022

18. Closed Sessions

19. Confirming By-law

20. Adjournment



The Corporation of The Nation Municipality

Minutes

Meeting Information

Meeting Number: 2022-20

Type: Regular

Date: September 12, 2022

Time: 4:30 p.m.

Location: Town Hall, 958 Route 500 West, Casselman

Chair: François St-Amour, Mayor

Prepared by: Aimée Roy, Deputy Clerk

Video: Council meetings are streamed live on [The Nation's YouTube channel](#).

Presence of Council Members

Mayor François St-Amour, yes

Councillor ward 1 Marie-Noëlle Lanthier, yes

Councillor ward 2 Alain Mainville, yes

Councillor ward 3 Danik Forgues, yes

Councillor ward 4 Francis Brière, yes

Presence of Municipal Staff

Josée Brizard, CAO-Clerk

Aimée Roy, Deputy Clerk

Jasmin Lemieux, Administrative Assistant

Richard J. Groulx, Fire Chief

Guylain Laflèche, Director of Planning

Nadia Knebel, Treasurer

Carol Ann Scott

Scheduled Agenda Items:

4:30 p.m.: Closed session

5:30 p.m.: Delegation

Agenda Items**1. Call to order**

Resolution: 386-2022

Moved by: Danik Forgues

Seconded by: Alain Mainville

Be it resolved that the present meeting be opened.

Carried

2. Changes and Additions to Agenda**3. Adoption of Agenda**

Resolution: 387-2022

Moved by: Francis Brière

Seconded by: Alain Mainville

Be it resolved that the agenda be accepted, including the modifications made forthwith, as applicable.

Carried

4. Disclosure of Conflict of Interest**5. Adoption of Minutes of Previous Meetings****Adjournment of meeting**

Resolution: 388-2022

Moved by: Danik Forgues

Seconded by: Marie-Noëlle Lanthier

Be it resolved that the present meeting be adjourned at **4:34 p.m.** for a closed session under the following section(s) of the Municipal Act, 2001:

Section 239 (2)

(b) personal matters about an identifiable individual, including municipal or local board employees;

(d) labour relations or employee negotiations;

(c) a proposed or pending acquisition or disposition of land by the municipality or local board; and

(e) litigation or potential litigation, including matters before administrative tribunals, affecting the municipality or local board

Carried

Re-opening of meeting

Resolution: 389-2022

Moved by: Danik Forgues

Seconded by: Francis Brière

Be it resolved that the present meeting be re-opened at **5:09 p.m.**

Carried

5.1 Minutes of the Regular Council meeting held August 29, 2022

Resolution: 390-2022

Moved by: Alain Mainville

Seconded by: Marie-Noëlle Lanthier

Be it resolved that the minutes of the following meetings be adopted as presented:

- Minutes of the Regular Council meeting held August 29, 2022

Carried

6. Adoption of Recommendations of the Municipal Council Committees

7. Receiving of Monthly Reports from the Appointed Municipal Officials

7.1 Guylain Laflèche, Director of Planning

7.1.1 Report PLA-12-2022

Urban Zone Amendment, St-Isidore

Resolution: 391-2022

Moved by: Alain Mainville

Seconded by: Francis Brière

WHEREAS the Planning Department submitted report PLA-6-2022 with recommendations toward the Draft Official Plan 2022 and those recommendations have been approved by Council under resolution 122-2022;

AND WHEREAS, following a request, the Planning Department present a change to Council;

Be it resolved that the Council approves the recommendations in Report PLA-12-2022 rev.2 and that they be sent to the United Counties of Prescott and Russell.

Carried

7.1.2 Report BLD-09-2022

Building Permit Deposit Reimbursement

Resolution: 392-2022

Moved by: Danik Forgues

Seconded by: Alain Mainville

Be it resolved that the building permit shown under Memo BLD-09-2022 be exempted of section 2 of Schedule B of By-Law 85-2005 (Building permit By-Law).

Carried

7.2 Nadia Knebel, Treasurer

7.2.1 Report F-19-2022

Property Tax Collection Policy

Resolution: 393-2022

Moved by: Marie-Noëlle Lanthier

Seconded by: Danik Forgues

Be it resolved that Council approves the recommendation, as shown in Report F-19-2022, so that the property tax collection policy be adopted.

Carried

7.3 Carol Ann Scott, Recreation Director

7.3.1 Report RE-10-2022

Inventory of Benefits for the Sports Complex

Resolution: 394-2022

Moved by: Francis Brière

Seconded by: Marie-Noëlle Lanthier

Be it resolved that Council approves the inventory of benefits for the Sports Complex Sponsorship Naming Rights.

Carried

7.4 Aimée Roy, Deputy Clerk

7.4.1 Report CL-09-2022

Limoges Electronic Sign Transfer

Resolution: 395-2022
Moved by: Francis Brière
Seconded by: Danik Forgues

Be it resolved that Council approves the transfer of the electronic sign located in Limoges to the Limoges Firefighters Association.

Carried

8. Notice of Proposed Motions

8.1 Town of South Bruce Peninsula, Mandatory Firefighter Certification

Resolution: 396-2022
Moved by: Francis Brière
Seconded by: Danik Forgues

Be it resolved that Council of The Nation Municipality supports the motion adopted by the Town of South Bruce Peninsula's Council on August 9, 2022, regarding the mandatory firefighter certification.

Carried

9. Unfinished Business from Previous Meetings

10. Delegations

10.1 Nicolas van de Laar
 Narrowing of Touchette Bridge

11. Applications for Prescott-Russell Land Division Committee

12. Municipal By-laws

13. Approval of the Variance Report and Accounts Payable

13.1 Accounts Payable

Resolution: 397-2022
Moved by: Francis Brière
Seconded by: Alain Mainville

Be it resolved that Council approves the accounts payable up to September 15, 2022.

Voucher 17: \$1,403,733.31

Carried

14. Other Business

14.1 Donation Request
 St-Isidore Minor Hockey

Resolution: 398-2022

Moved by: Alain Mainville

Seconded by: Danik Forgues

Be it resolved that Council approves giving a donation to the St-Isidore Minor Hockey Association to defray costs for ice time for hockey practices and games of \$1,000.00, to be taken from the UCPR donation account.

Carried

14.2 Donation Request

Jean-Paul Charlebois St-Bernardin Revitalization Committee

Resolution: 399-2022

Moved by: Marie-Noëlle Lanthier

Seconded by: Alain Mainville

Be it resolved that Council approves giving a donation to the Jean-Paul Charlebois Park Revitalisation Committee of St-Bernardin for a party at the park of \$1,700.00, \$500.00 to be taken from the Mayor's donation account and \$1,200.00 to be taken from the ward 1 donation account.

Carried

15. Various Monthly Reports

15.1 EOHU

Outbreak advisory

15.2 iSolara

Energy Performance Report for the month of July and August 2022

16. Correspondence

16.1 AMO, Newsletters

16.2 Town of Kingsville, Opposition to Bill 3, Strong Mayors, Building Homes Act, 2022

Resolution: 400-2022

Moved by: Danik Forgues

Seconded by: Alain Mainville

Be it resolved that the correspondence as listed on the September 12, 2022 agenda be received.

Carried

17. Coming Events

17.1 Regular Council Meeting, September 26, 2022

18. Closed Sessions

18.1 Richard J. Groulx, Fire Chief

18.1.1 Report F-12-2022, Employee

Section 239 (2) (b) personal matters about an identifiable individual, including municipal or local board employees; and
(d) labour relations or employee negotiations

Resolution: 401-2022

Moved by: Francis Brière

Seconded by: Danik Forgues

Be it resolved that Council approves the recommendations as stipulated in report FD-12-2022 submitted in closed session.

Carried

18.2 Guylain Laflèche, Director of Planning

18.2.1 Report PLA-13-2022

Revision of a land sale contract

Section 239 (2) (e) litigation or potential litigation, including matters before administrative tribunals, affecting the municipality or local board and (k) a position, plan, procedure, criteria, or instruction to be applied to any negotiations carried on or to be carried on by or on behalf of the municipality or local board

Resolution: 402-2022

Moved by: Alain Mainville

Seconded by: Marie-Noëlle Lanthier

Be it resolved that Council approves the recommendation the Planning Department stipulated in the Report PLA-13-2022.

Carried

18.3 Josée Brizard, CAO-Clerk

18.3.1 Employee, verbal report

Section 239 (2) (b) personal matters about an identifiable individual, including municipal or local board employees; and
(d) labour relations or employee negotiations

19. Confirming By-law

Resolution: 403-2022

Moved by: Francis Brière

Seconded by: Marie-Noëlle Lanthier

Be it resolved that By-Law No. 111-2022 to confirm the proceedings of Council at its regular meeting of September 12, 2022 be read and adopted in 1st, 2nd and 3rd reading.

Carried

20. Adjournment

Resolution: 404-2022

Moved by: Danik Forgues

Seconded by: Alain Mainville

Be it resolved that the present meeting be adjourned at **6:36 p.m.**

Carried

François St-Amour, Mayor

Josée Brizard, CAO-Clerk



**Conseil d'administration de la Bibliothèque Publique de la
Municipalité de La Nation
The Nation Municipality Public Library Board**

Procès-verbal / Minutes

Réunion ordinaire / Regular meeting
Le jeudi 9 juin, 2022 à 19h / Thursday June 9, 2022 at 7 PM
Succursale St Isidore Branch

Présences / Attendance: France Lamoureux, présidente / Chairperson
Suzanne Leblanc, membre / Member
Chantal Normand, member / Member
Pierrette Lavergne, membre / Member
Yvon Quesnel, member / Member
Joanne Côté-Pilon, membre/Member
Jeanne Leroux, directrice générale/Chief Executive Officer

Regret / Regrets : Danik Forgues, conseiller municipal / Municipal Councillor

<p>1. Mot de la présidente La présidente souhaite la bienvenue aux membres car c'est sa première rencontre en présentielle. Elle mentionne que parfois il faut oser faire un premier geste vers la personne en détresse, surtout après cette période de pandémie qui a affecté la santé mentale de beaucoup de gens. Le pire qui peut se produire est de se faire dire "NON".</p>	<p>1. Call to Order The chairperson welcomed members since it was her first in person meeting. She mentioned that sometimes we need to remember that we have to dare to make the first step towards a person in crisis especially in this post pandemic that affected the mental health of a lot of people. The worst response to your offer can only be NO !</p>
<p>2. Modifications à l'ordre du jour Aucun</p>	<p>2. Additions to Agenda None</p>
<p>3. Adoption de l'ordre du jour <i>Proposé par : Chantal Normand</i> <i>Secondé par : Suzanne Leblanc</i></p>	<p>3. Approval of Agenda <i>Proposed by: Chantal Normand</i> <i>Seconded by : Suzanne Leblanc</i></p>

<p>4. Conflits d'intérêts</p> <p>Il n'y avait aucun conflit.</p>	<p>4. Conflicts of Interest</p> <p>There were no conflicts.</p>
<p>5. Adoption du procès-verbal du 14 avril, 2022</p> <p><i>Proposé par : Chantal Normand</i> <i>Secondé par : Pierrette Lavergne</i></p>	<p>5. Approval of minutes of April 14, 2022</p> <p><i>Proposed by: Chantal Normand</i> <i>Seconded by : Pierrette Lavergne</i></p>
<p>6. Questions découlant du procès-verbal du 14 avril, 2022</p> <p>Bibliothèques de rue pour Limoges : Yvon nous donne un compte rendu. Le projet avance.</p>	<p>6. Questions related to minutes of April 14, 2022</p> <p>Limoges Street Libraries: Yvon updated everyone. The project is in progress.</p>
<p>7. Affaires découlant des réunions précédentes :</p> <p>Boîte de retour pour St-Albert: La boîte de retour est quasiment prête à être installée. Jeanne va s'informer auprès de professionnels de la possibilité de faire apposer du lettrage résistant directement sur la boîte et ainsi identifier que c'est bien une boîte de retour de livre et non une poubelle.</p>	<p>7. Business arising from previous meetings :</p> <p>St Albert Book Return Box: It is almost ready to install in the next few weeks. Jeanne will investigate if we can get some professional lettering to indicate that this is a library return box.</p>
<p>8. Rapport financier</p> <p>Que le rapport financier en date du 31 mai, 2022 soit adopté tel que reçu</p> <p><i>Proposée par : Pierrette Lavergne</i> <i>Appuyée par : Yvon Quesnel</i></p>	<p>8. Financial Report</p> <p>That the financial report dated May 31, 2022 be adopted as is.</p> <p><i>Proposed by: Pierrette Lavergne</i> <i>Seconded by: Yvon Quesnel</i></p>

<p>9. Élection municipale : Un rappel amical qu'en septembre prochain, les membres du conseil de la bibliothèque intéressés à poursuivre leur engagement pour les quatre(4)prochaines années, doivent remettre une lettre avec leur intention. Si toutefois, ils ne songent pas poursuivre leur implication, ils sont fortement encouragés à trouver quelqu'un de leur communauté pour les remplacer.</p>	<p>9. Municipal Election : A kindly reminder that at the September meeting Library Board members will be asked to indicate if they wish to remain on the Library Board for the coming four (4) years. Members who anticipate not renewing their mandate were asked to attempt to find a replacement in their community.</p>
<p>10. Correspondance Aucun</p>	<p>10. Correspondance None</p>
<p>11. Prochaine réunion</p> <p>Jeudi le 8 septembre, 2022 à 19 heures en personne à la succursale Limoges</p>	<p>11.Next Meeting</p> <p>Thursday, September 8, 2022 at 7pm in person at the Limoges Branch</p>
<p>12. Levée de l'assemblée</p> <p>L'assemblée s'est terminée à 20h00 <i>Proposée par : Joanne Côté-Pilon</i> <i>Appuyée par : Suzanne Leblanc</i></p>	<p>12.Adjournment</p> <p>The meeting adjourns at 8:00 <i>Proposed by: Joanne Côté-Pilon</i> <i>Secoded by: Suzanne Leblanc</i></p>



Bibliothèque Publique de la Municipalité de La Nation

The Nation Municipality Public Library

Rapport de la directrice générale / Chief Executive Officer Report

Avril / Mai 2022

April May 2022

Réalisations / Highlights & Accomplishments

Nouvelle importante : Nous allons recevoir un octroi de \$500.00 de l'Association Internationale de la Dyslexie en Ontario pour l'achat de livres et de ressources fait spécifiquement pour aider les enfants et adultes vivant avec la dyslexie. Nous avons complété les formulaires requis et nous devrions recevoir le tout vers la fin juin, début juillet. Une liste de livres en français et en anglais nous sera fourni par l'association pour faciliter la tâche. Nous identifierons ces livres avec une étiquette spéciale apposée sur le livre et ajouterons également une description dans le catalogue /// **Important news :** We will be receiving a \$500.00 grant from the International Dyslexia Association Ontario for the purchase of books and resources specifically made to help children and adults living with dyslexia. We have completed the required forms and should be receiving the funding towards the end of juin beginning of July. A list of French and English books was made available to facilitate the task. We will identify all items with a provided sticker on the outside of the book and we will identify these resources on our catalogue also.

Mise à jour connectivité : Voici l'information concernant les fonds disponibles par l'entremise du programme « Ontario Library Service » du gouvernement provincial sur la connectivité haute vitesse pour les bibliothèques publiques. Nous avons complété et remis les documents nécessaires à « Community Network Partners Inc, Galaxy Broadband Communications Inc. » de Mississauga. On nous a informé que ceci aura lieu d'ici la fin de l'année 2022. Nous ne savons pas cependant, qui sera la compagnie locale qui fera le travail sur les lieux /// **Update on connectivity :** With regards to the funds available via the Ontario Library Service from the provincial government for the broadband for public libraries, we have completed the required documents for « Community Network Partners Inc, Galaxy Broadband Communications Inc. » of Mississauga. We were advised that the work will take place before the end of the 2022 calendar year. We however do not know who the local contractor will be that will be doing the actual work on site.

Ressources humaines : Odette Cousineau a remis sa démission en date du 27 mai, 2022. Nous la remercions pour son travail avec nous depuis 2017. Depuis, nous avons annoncé et reçu six (6) applications. Nous avons fait des entrevues, jeudi le 19 mai 2022, des trois (3) candidates sélectionnées. Nous souhaitons la bienvenue à Émilie Boisvert ! Elle a débuté en date du 7 juin 2022. Émilie recevra sa formation pour ensuite travailler à la succursale de Limoges /// **Human Resources** : Odette Cousineau submitted her resignation as of May 27, 2022. We would like to thank her for her work with us since 2017. We have advertised and received six (6) applications. We conducted interviews on Thursday May 19, 2022 with the selected three (3) candidates. We welcome Emilie Boisvert. She will start her training as of June 7, 2022. She will then be working at the Limoges Branch.

Élection provinciale : Pour la première fois, Élection Ontario a envoyé une personne dans toutes les bibliothèques publiques de l'Ontario pour une période de deux (2) heures pour répondre aux questions du public sur les différentes façons de voter. La représentante a été à la succursale St Isidore le 12 mai de 14h à 16h, à la succursale St Albert le 13 mai de 13h à 15h et à la succursale Limoges le 16 mai 2022 de 15h à 16h30 /// **Provincial Election** : For the first time, Elections Ontario sent a representative to all public libraries for two (2) hours to answer questions that clients may have regarding how to vote. The representative was at the St Isidore Branch on May 12 from 2pm to 4pm, at the St Albert Branch on May 13 from 1pm to 3pm and at the Limoges Branch on May 16 from 3pm to 4 :30pm.

Vente de livres au centre Sportsplex Nepean : Nous avons participé à la vente de livres du printemps organisée par les conseils scolaires d'Ottawa, soit mercredi le 18 mai, 2022 /// **Book Sale at the Nepean Sportsplex** : We participated in the Spring Book Sale organized by the Ottawa School Boards on Wednesday May 18, 2022.

Étudiante d'été : Nous avons embauché notre étudiante d'été, soit Alexandra Dambremont. Elle organisera le programme d'été aux trois (3) succursales. Le programme sera principalement un bricolage simple avec des fournitures nécessaires pour compléter le bricolage, en plus d'un sac de plastique avec des extras, tel qu'un livre gratuit, ou autres petits cadeaux. Nous introduirons aussi l'aspect imprimante 3D dans le programme. Ce détail reste à être finalisé /// **Summer Student** : We welcome our summer student Alexandra Dambremont. She will organize the summer program at the three (3) branches. The program will be mainly a simple arts and craft activity with all required material to complete the item in a plastic bag, with a few extras such as a free book or

other trinket. We will also be introducing the 3D printer aspect into the program. We have not completed this part of the program.

Succursale Limoges Branch :

- La situation pour l'année scolaire 2022-2023 à la succursale de Limoges nous tracasse énormément. Avec le nouveau projet pilote de l'enseignement en équipe, il semble qu'il y aura une 5^{ième} année qui sera dans la salle adjointe à la bibliothèque. Ceci veut dire qu'il y aura énormément de va et vient entre la classe et le corridor qui traverse devant le comptoir de service et le bureau de la bibliothèque. Même si toute cette circulation se produit lorsque la succursale est fermée aux publiques, ceci présente un problème pour nous comme employée. Nous avons de plus en plus de tâches à accomplir lorsque la succursale est fermée. Avec toutes les nouvelles applications pour des cartes de bibliothèque depuis l'ouverture, nous prévoyons une augmentation de tâches surtout à Limoges
/// The situation for the academic year 2022-2023 at the Limoges Branch is very concerning. With the introduction of the new pilot project of team teaching, it seems that there will be a Grade 5 in the room adjacent to the branch. This means there will be an enormous amount of back and forth by staff and students right in front of the Service Desk and our office. With the tremendous increase in new applications, we anticipate that there will be an increase in the amount of work we need to do during the hours the branch is not open.
- Depuis la pandémie, il semble que la succursale durant le jour est devenu la deuxième salle à manger pour le personnel de l'école et le lieu principal pour faire de la physiothérapie pour les enfants. En plus de faire de la physiothérapie sur le plancher de la succursale, on laisse aussi les instruments requis tel les cousins sur les lieux ... chose qui ne me semble pas très sanitaire, ni sécuritaire pendant un temps de pandémie /// During the pandemic, it seems that the branch during the day has become the second lunch room for school staff and also the location to offer physiotherapy to students. Not only is physiotherapy done on the floor of the branch but the items required to do this such as cushions are left on site ... which does not seem to be very sanitary nor secure especially during a pandemic time.

Succursale St Isidore Branch :

- Nous avons fait réparer une fuite dans le plafond de la cuisine. Après plusieurs essaies, finalement un contracteur a trouvé comment faire la réparation. Les toits plats sont parfois un casse-tête /// We had the leak in the kitchen roof repaired.

After multiple attempts, we finally found a contractor to do the repair. Flat roofs are often a major headache when they need repair.

- L'Assemblée de la francophonie est venue faire un tournage mardi le 31 mai de la courtepoinée en exposition pour inclure dans un montage d'information pour les élections municipales du mois d'octobre. On nous a dit que ces montages seront sur les réseaux sociaux probablement en juillet ou août 2022 /// **On Tuesday May 31, a representative from « L'Assemblée de la francophonie » did some filming of the 'quilt' that is on display in the Branch. This is for the upcoming municipal elections in Octobre. We were told it will be on all social media channels in July or August.**

Succursale St Albert Branch : Jeudi 19 mai, Melissa Cardinal et ses enfants sont venus vendre leurs signets et autres fabrications d'artisanat faite de perles /// **On Thursday May 19, Melissa Cardinal and her children came and sold some of their hand made bookmarks and other items made of pearl beads.**

**CORPORATION DE LA MUNICIPALITÉ DE LA NATION
CORPORATION OF THE NATION MUNICIPALITY**

Type: _____

Date: _____

Résolution No.: _____

Proposée par/Moved by: Marie-Noëlle Lanthier Alain Mainville Danik Forgues Francis Briere

Appuyée par/Seconded by: Marie-Noëlle Lanthier Alain Mainville Danik Forgues Francis Briere

Remboursement des dépôts de permis de construction – Exemption de la section 2 de la cédule B du règlement 85-2005

Qu'il soit résolu que les permis de construction énumérés dans la note de service BLD-10-2022 soit exempté de la section 2 de la cédule B du règlement 85-2005 (Règlement de permis de construction) :

Building permit deposit reimbursement- Exemption of section 2 of Schedule B of By-law 85-2005

Be it resolved that the building permit shown under Memo BLD-10-2022 be exempted of section 2 of Schedule B of By-law 85-2005 (Building permit By-law):

Recorded Vote/Vote Enregistré

	<u>Yea</u>	<u>Nay</u>
Francois St. Amour	<input type="checkbox"/>	<input type="checkbox"/>
Marie-Noëlle Lanthier	<input type="checkbox"/>	<input type="checkbox"/>
Alain Mainville	<input type="checkbox"/>	<input type="checkbox"/>
Danik Forgues	<input type="checkbox"/>	<input type="checkbox"/>
Francis Briere	<input type="checkbox"/>	<input type="checkbox"/>

Cette resolution est:

This resolution is:

Adoptée/Carried:

Rejetée/Defeated:

Modifiée/Amended:

DÉCLARATION D'INTÉRÊT / DISCLOSURE OF INTEREST

Nom / Name: _____, _____ a (ont) déclaré ses (leur) intérêts, a laissé son (leur) siège(s) et a quitté la salle du Conseil./Disclosed his (her, their) interest, vacated his (her, their) seat(s) and left Council chambers.

Greffière
Clerk

NOTE DE SERVICE BLD-10-2022

SERVICE DE L'AMÉNAGEMENT DU TERRITOIRE

DATE: Le 26 septembre 2022

OBJET: Demande de remboursement de dépôt de permis de construction

DESTINATAIRE: Membres du Conseil

Membres du conseil,

La construction du permis suivant n'a pas été terminée dans le délai requis d'un an (cause : COVID-19, délai dans le nouveau développement et délai des matériaux de construction). Nous demandons le remboursement en entier du dépôt pour la construction ci-dessous :

# Permis	Adresse	Date d'émission	Inspection finale	Roll #
2020-169	3664 County Rd 3	23 juillet 2022	12 septembre 2022	026-018-01820

Par le passé, le Conseil a acquiescé à des demandes semblables, mais dans un délai de deux ans suivant la date d'un an. (Ex : retard relié à la température, changement de contracteur, événement d'urgence etc...)

Le Service de construction n'a pas de problème avec la demande, nous demandons donc au conseil d'exempter les permis ci-haut mentionnés de l'article 2 du règlement 85-2005 et de remettre 100% du dépôt de performance.

Guylain Lafèche, MCIP, RPP
Urbaniste

MEMO BLD-10-2022

PLANNING DEPARTMENT

DATE: September 12, 2022

RE: Request for reimbursement of building permit deposit

RECIPIENT: Board Members

Board Members,

Construction of the following permit was not completed within the required one-year timeframe (cause: COVID-19, delay in new development and delay of building materials). We request full reimbursement of deposit for the construction below:

Permit #	Address	Date Issued	Final Inspection	Roll #
2020-169	3664 County Rd 3	July 23, 2022	September 12, 2022	026-018-01820

In the past, the Board has granted similar requests, but within two years of the one-year date. (Ex: delay related to temperature, change of contractor, emergency event, etc.)

The Construction Department has no problem with the request, we therefore ask the council to exempt the above-mentioned permits from article 2 of by-law 85-2005 and to return 100 % of the performance deposit.

Guylain Laflèche, MCIP, RPP
Planner



FINANCE DEPARTMENT REPORT

Report number: F-21-2022

Subject: Property Tax Receivable

Prepared by: Nadia Knebel, Treasurer

Reviewed by: Josée Brizard, CAO-Clerk

Date: September 26th, 2022

INTRODUCTION:

For information purposes only, a summary current taxes receivable versus the same period last year is found below:

ANNÉE / YEAR	DESCRIPTION	SOLDE, AU 10 SEPT 2021 / BALANCE, AT SEPT 10, 2021	SOLDE, AU 6 SEPT 2022 / BALANCE, AT SEPT 6, 2022	ÉCART / DIFFERENCE
	Credit	-\$ 61,325.41	-\$ 73,845.69	-\$ 12,520.28
Courant / Current	Impôts fonciers / Taxes	\$ 7,015,685.56	\$ 7,371,003.35	\$ 355,317.79
	Intérêts / Interest	\$ 26,561.86	\$ 16,934.22	-\$ 9,627.64
Année précédente / Previous year	Impôts fonciers / Taxes	\$ 473,532.51	\$ 450,254.42	-\$ 23,278.09
	Intérêts / Interest	\$ 45,547.36	\$ 46,978.91	\$ 1,431.55
Deux ans / Two years	Impôts fonciers / Taxes	\$ 233,369.42	\$ 248,247.04	\$ 14,877.62
	Intérêts / Interest	\$ 49,969.85	\$ 46,370.93	-\$ 3,598.92
Trois ans et + / Three + years	Impôts fonciers / Taxes	\$ 177,453.17	\$ 249,712.03	\$ 72,258.86
	Intérêts / Interest	\$ 67,446.28	\$ 101,224.84	\$ 33,778.56
Total		\$ 8,028,240.60	\$ 8,456,880.05	\$ 428,639.45

Taxes receivable is higher than prior year. No specific reason can be pinpointed; however, it is likely due to the current economic circumstances which were not present in 2021 and which is starting to show its effects on household budgets.

RECOMMENDATION:

It is recommended that Council approve the report presented.

Nadia Knebel, CPA
Treasurer



FINANCE DEPARTMENT REPORT

Report number : F-22-2022

Subject : Third quarter results

Prepared by : Nadia Knebel, Treasurer

Reviewed by : Josée Brizard, CAO-Clerk

Date: September 26th, 2022

CONTEXT:

As the third quarter of 2022 comes to a rapid close, the financial results are presented in the attached schedule.

Overall, expenses are in line with the budget. A few exceptions are:

- Despite the hike in gas prices, this expense is still in line with the budget.
- Also worth noting is the fact that propane increased \$0.21 while consumption also increased slightly. As such, the cost of propane for the first 6 months has already attained the budget for the year.
- Insurance overall is over budget due to a higher than anticipated increase.
- An update on road projects:
 - In general, paving costs increased by 15 to 25 % versus the budget.
 - Sabourin exceeded the budget because the street required more correcting than expected which increased the paving cost in addition to the price increase.
 - Des Pins is over budget in large part due to changes made from the original plan for the sidewalks and curbs as well as the increased cost of paving.
 - Lavergne is over budget because the street required more padding than expected combined and the price of asphalt increased.
 - Seen the overruns thus far, it was decided to postpone the purchase of a pickup truck to 2023 thereby saving \$59,000. As well, some projects that were budgeted will not be done in 2022 for various reasons, thereby saving a further \$353,438. These projects are land acquisition, Road 800 East (pushed to 2023), sidewalks and Machabee Street.
 - These savings will help absorb the losses incurred on road projects.

ATTACHMENT:

Schedule A – variances YTD vs budget

RECOMMENDATION :

It is recommended that Council accept the report presented detailing the results for the third quarter.

Nadia Knebel, CPA
Treasurer

SCHEDULE A / ANNEXE A

DEPARTMENT / DÉPARTEMENT	Q3 REVENUES / REVENUS	Q3 EXPENSES / DÉPENSES	Q3 ACTUAL / REEL SURPLUS / (DÉFICIT)	ANNUAL BUDGET SURPLUS / (DÉFICIT)	% OF/DU BUDGET	% of BUDGET REMAINING	COMMENTS
MUNICIPAL TAXES MUNICIPALE	12,777,469	-	12,777,469	12,959,730	99%	0.01	Final taxes billed
GENERAL	566,873	-	566,873	1,090,600	52%	48%	OMPF pmt received + tax penalties charged
COUNCIL/CONSEIL	10,000	152,180	(142,180)	(235,807)	60%	40%	
COUNCIL SUPPORT/SOUTIEN CONSEIL	6,130	343,877	(337,747)	(551,231)	61%	39%	HR software + laptops for new council (\$25k)
ADMINISTRATION	29,004	950,250	(921,246)	(1,271,142)	72%	28%	Tax certificate revenues higher than p/yt, more tax certificates issued; Expenses generally on target with budget except legal due to \$30k settlement (closed session topic). Capital expenses include new AC \$5749, new furnace \$5225, & laptop \$2193.
SOLAR PANEL/PANNEAUX SOLAIRES	53,900	4,009	49,891	95,240	52%	48%	
ELECTIONS	1,500	20,319	(18,819)	(32,000)	59%	41%	
COMPUTERS/INFORMATIQUE	13,288	126,272	(112,984)	(255,563)	44%	56%	
FIRE \ FEU	32,653	454,016	(421,363)	(1,496,639)	28%	72%	
POLICE	-	1,108,948	(1,108,948)	(1,561,000)	71%	29%	Requisitions Jan-Aug paid
ANIMAL CONTROL/CONTROLE D'ANIMAUX	1,000	(57)	1,057	-	#DIV/0!	#DIV/0!	Revenues: Kennel licences
BY-LAW ENF./LOI MUNICIPAL	11,295	156,181	(144,886)	(215,412)	67%	33%	Revenues at 98 % of budget - more parking tickets than prior ytd; expenses overall on target with budget; as expected gas has exceeded budget by 35% YTD.
BUILDING/CONSTRUCTION	409,183	135,161	274,022	-	#DIV/0!	#DIV/0!	Building permits YTD = \$404 881 comparable to py (\$370,186); overall expenses on target w/budget
EMERGENCY MESURES D'URGENCE	3,414	3,487	(73)	(3,800)	2%	98%	
HEALTH&SAFETY/SANTE ET SECURITE	-	22,751	(22,751)	(35,831)	63%	37%	
CONSERVATION AUTHORITY	-	68,112	(68,112)	(102,892)	66%	34%	Requisitions #1 & 2 paid
ROADWAYS/VOIRIE	787,725	5,929,766	(5,142,042)	(6,130,220)	84%	16%	Expenses: Dust control above budget due to more done than p/ly mainly bcs of paving strike (had to put calcium on gravel road while waiting for paving) + \$0.23/L increase + fuel service charge charged YTD (\$9,533). Salt & sand above budget by \$46,000 and \$54,000 higher than p/ly. Used more and price increase of \$5.41/MT vs 2021. R&M on several trucks above budget due to major necessary repairs (ex. 2010 Inter, Unit 6005-Replaced air tanks & compressor \$9,760; 2014 Western Star, Unit 6011-Replaced turbo, actuator & coolant tube \$11,311; 2014 Case Excavator, Unit 6040-Hydraulic Motor, Razor Brusher, Hydraulic hose, shovel repairs \$11,718). Significant expenses to keep trucks on the road. Capital projects: General note - price of asphalt increased between 15 and 25% vs what was budgeted. Sabourin - over budget by approx \$15.6k (YTD) due mainly to paving which cost more bcs road needed more correcting than planned. Des Pins - currently over budget by approx \$72k. Overrun due mainly to the fact that street was planned as a rural road however, it quickly became clear that it was more of an urban road and should be redone accordingly. As such, sidewalks & curbs are built differently which led to extra, unplanned costs. Paving invoice is still outstanding on this project which will increase the budget overrun. Lavergne - over budget by approx \$34k (YTD) due to paving which cost more bcs used more due to padding (correction of road which is hard to quantify until job is being done).
CROSSING PATROL/BRIGADERIE	-	4,468	(4,468)	(33,606)	13%	87%	Salaries to be allocated here at year end.
STREET LIGHTS/LUMIERE DE RUE	-	62,066	(62,066)	(72,500)	86%	14%	
GENERAL W&S/E&E	54,792	715,555	(660,763)	(1,106,647)	60%	40%	
SEWER LIMOGES EGOUTS	434,102	614,473	(180,371)	(9,583,646)	2%	98%	Revenues: Mar & June billing Expenses: General expenses on target for annual budget. Large part of total expenses is upgrade of SPS #1 (\$363,858) which is on budget overall.
SEWER ST-BERNARDIN EGOUTS	4,314	12,224	(7,910)	(9,372)	84%	16%	Groundwater monitoring
SEWER ST-ALBERT EGOUTS	298,433	63,244	235,188	(146,023)	-161%	261%	Revenues - billing as budgeted + new connection; overall exp on target w/budget
SEWER ST-ISIDORE EGOUTS	113,586	17,477	96,109	153,892	62%	38%	Billing revenues offset by expenses which are below target w/budget
SEWER FOURNIER EGOUTS	27,751	38,646	(10,895)	(26,112)	42%	58%	Revenues - Billing as budgeted + new connection; engineer exp almost at budget due to groundwater monitoring, other expenses below target for budget
SEWER FOREST PARK EGOUTS	29,123	14,688	14,434	-	#DIV/0!	#DIV/0!	
WATER LIMOGES EAU	632,430	5,292,062	(4,659,632)	(12,044,411)	39%	61%	Large part of budget is for Cheney - Limoques water main
LINDA WATER PROJECT EAU LINDA	-	-	-	-	#DIV/0!	#DIV/0!	
WATER ST-ISIDORE EAU	229,184	130,230	98,955	81,443	122%	-22%	Revenues: Billing; offset by expenses which includes requisitions pd to Alfred-Plantagenet of \$66,744; other expenses on target w/budget; expenses include capital expenses of \$35,270 for a pump at the Plantagenet booster station
W&S LIMOGES PHASE 3 E&S	-	20,413	(20,413)	-	#DIV/0!	#DIV/0!	
W&S LIMOGES IND. PARK E&S	440	-	440	-	#DIV/0!	#DIV/0!	
W&S BLVD BOURDEAU E&S	-	-	-	-	#DIV/0!	#DIV/0!	
GR SEWER LIMOGES CR. EGOUTS	291,294	-	291,294	281,340	104%	-4%	Water connection revenue
GR. SEWER FOREST PARK CR. EGOUTS	9,710	6,204	3,506	(12,141)	-29%	129%	Water connection revenue
GR. WATER LIMOGES CR.EAU	282,986	-	282,986	275,040	103%	-3%	Water connection revenue
GR. WATER LINDA CR. EAU	15,134	-	15,134	-	#DIV/0!	#DIV/0!	Water connection revenue
GR. WATER ST-ISIDORE CR. EAU	64,233	14,099	50,134	11,500	436%	-336%	Water connection revenue
GR. WATER LIMOGES IND. PARK CR.EAU	-	-	-	(665)	0%	100%	
GR.W&S CALYPSO CR E&S	68,158	52,572	15,586	(34,602)	-45%	145%	

SCHEDULE A / ANNEXE A

DEPARTMENT / DÉPARTEMENT	Q3 REVENUS / REVENUS	Q3 EXPENSES / DÉPENSES	Q3 ACTUAL / REEL SURPLUS / (DÉFICIT)	ANNUAL BUDGET SURPLUS / (DÉFICIT)	% OF/DU BUDGET	% of BUDGET REMAINING	COMMENTS
ENVIRONNEMENT/ENVIRONNEMENT	1,222	138,927	(137,705)	(283,195)	49%	51%	Expenses on target for budget
ST-ISIDORE LANDFILL/DEPOTOIR	-	4,251	(4,251)	(16,622)	26%	74%	Expenses include engineer fees for landfill reports
ST-BERNARDIN LANDFILL/DEPOTOIR	-	4,796	(4,796)	(20,922)	23%	77%	
FOURNIER LANDFILL/DEPOTOIR	23,483	27,171	(3,688)	(8,243)	45%	55%	
CENTRAL LANDFILL/DEPOTOIR	-	10,476	(10,476)	(26,993)	39%	61%	
ST-ALBERT LANDFILL/DEPOTOIR	-	5,900	(5,900)	(21,993)	27%	73%	
LIMOGES LANDFILL/DEPOTOIR	33,583	34,871	(1,288)	3,107	-41%	141%	Shipping fees-missing Aug & Sept; overall expenses on target YTD
GARBAGE COLLECTION ORDURE	534,091	271,693	262,398	170,798	154%	-54%	Revenues =full year for fees; Jan - Aug garbage collection fees
RECYCLING COLLECTION RECYCLAGE	380,993	234,664	146,329	178,522	82%	18%	Revenues =full year for fees; Jan - Aug garbage collection fees
GARBAGE DISP./ENLEV.D'ORDURE	-	110,619	(110,619)	(179,000)	62%	38%	
STORM WATER POND	-	-	-	(16,000)	0%	100%	
ST-ISIDORE PARK/PARC	-	7,099	(7,099)	-	#DIV/0!	#DIV/0!	
STE-ROSE PARK/PARC	-	3,868	(3,868)	-	#DIV/0!	#DIV/0!	
ST-BERNARDIN PARK/PARC	3,540	64,148	(60,608)	(96,000)	63%	37%	\$34,772 = paving of tennis courts; \$19,466 = painting tennis & pickle ball courts; \$3,559 basketball net
FOURNIER PARK/PARC	-	14,954	(14,954)	-	#DIV/0!	#DIV/0!	Heater & breaker in building; contractor for outdoor rink
ST-ALBERT PARK/PARC	1,068	8,295	(7,227)	(15,000)	48%	52%	
FOREST PARK/PARC	-	9,331	(9,331)	-	#DIV/0!	#DIV/0!	Contractor for outdoor rink
LIMOGES PARK/PARC RODOLPHE	11,301	34,042	(22,741)	-	#DIV/0!	#DIV/0!	Grant for \$10,000 for accessible play structure received offset by contractor for outdoor rink & deposit for play structure
LIMOGES PARK/PARC GIROUX	-	488	(488)	-	#DIV/0!	#DIV/0!	
C.F.E. PARK/PARC	-	1,406	(1,406)	-	#DIV/0!	#DIV/0!	
GAGNON PARK/PARC	2,200	10,460	(8,260)	(7,279)	113%	-13%	Expenses: Pave walkway to museum and toilet \$8141
SAVAGE PARC/PARC	-	-	-	-	#DIV/0!	#DIV/0!	
HEALTH HUB	-	-	-	-	#DIV/0!	#DIV/0!	
SOCIAL COMITE	-	-	-	-	#DIV/0!	#DIV/0!	
RECREATION GENERAL	3,257	159,200	(155,943)	(493,990)	32%	68%	
ST-ISIDORE ARENA	116,729	282,912	(166,183)	(1,169,581)	14%	86%	
BOWLING/QUILLES	763	1,122	(359)	3,912	-9%	109%	Opened for March break and only a few private groups. Bowling leagues did not want to come back to play because of Covid. Leagues usually play from Oct - Dec and then from Jan- Apr. This explains lack of revenues to date. Both bowling leagues will be starting the first week of October which will generate revenues for the end of the year.
HALL/SALLE	5,323	9,174	(3,851)	(9,100)	42%	58%	Large part of expenses is bar supplies, bar was restocked; new ice machine \$3,999
SPORT BAR SPORTIF	35,144	28,901	6,243	(6,568)	-95%	195%	Revenues below budget YTD but hockey season to start again soon; expenses on target YTD
CANTINE	3,007	3,193	(186)	4,000	-5%	105%	
ST ISIDORE SUMMER CAMP/CAMP ÉTÉ	-	(129)	129	(6,253)	-2%	102%	YTD revenues already at budget which is good; YTD expenses on target with budget
ST-BERNARDIN HALL/SALLE	14,242	46,966	(32,725)	(113,463)	29%	71%	
FOURNIER HALL/SALLE	2,121	14,557	(12,436)	(25,366)	49%	51%	
ST-ALBERT HALL/SALLE	7,585	31,866	(24,280)	(195,135)	12%	88%	Revenues below budget bcs hall was not booked for spring/summer weddings (May-July), most likely due to covid. Aug-Oct does have bookings. there will be some revenues by the end of the year.
LIMOGES HALL/SALLE	6,202	26,469	(20,267)	(52,150)	39%	61%	Revenues below budget because not allowed to use hall until Mar 1, hall not usually busy in summer (events held outdoors), & taekwondo & women's soccer did not come back for the fall. There were some rentals in the spring but not enough to cover the ones that did not occur.
SPORT COMPLEX LIMOGES	54,637	6,833,272	(6,778,635)	(11,963,587)	57%	43%	\$10k donation rec'd; expenses = construction costs
LIBRARY GENERAL BIBLIOTHEQUE	772	205,491	(204,718)	-	#DIV/0!	#DIV/0!	Bulk of expenses = salaries & utilities
LIBRARY ST-ISIDORE BIBLIOTHEQUE	2,386	25,691	(23,306)	(2,300)	1013%	-913%	Expenses on target for budget; municipal contribution recorded at year end which will absorb loss
LIBRARY ST-ALBERT BIBLIOTHEQUE	287	16,317	(16,030)	(15,800)	101%	-1%	Expenses on target for budget; municipal contribution recorded at year end which will absorb loss
LIBRARY LIMOGES BIBLIOTHEQUE	167	16,175	(16,009)	(1,700)	942%	-842%	Expenses on target for budget; municipal contribution recorded at year end which will absorb loss
PLANNING/URBANISTE	54,605	123,510	(68,905)	(268,934)	26%	74%	Revenues almost at budget at Q3 which is good, expenses in line with budget
DEVELOPPEMENT ECONO./EXPANSION ECONO.	58	63,692	(63,634)	(112,530)	57%	43%	
MUNICIPAL DRAIN/DRAINAGE MUNICIPAL	(6,711)	158,303	(165,014)	(43,200)	382%	-282%	no budget for municipal drains
TILE DRAINAGE SOUTERAIN	11,291	11,291	-	-	#DIV/0!	#DIV/0!	
TRANSFER/TRANSFERT	-	-	-	(498,242)	0%	100%	
NGPR TRANSFER / TRANSFERT	-	-	-	-	#DIV/0!	#DIV/0!	
Total	18,562,446	25,589,121	(7,026,675)	(35,321,285)			

Detail of budgeted excess revenues over expenditures:

Loan repayments	(574,867)
Long-term debt	33,695,439
Transfer from reserve	3,601,760
Transfer to reserve	(1,401,047)
	<u>35,321,285</u>
Difference	<u>0</u>



TOWNSHIP OF CHAMPLAIN

RESOLUTION
REGULAR MEETING

Agenda Number: 10.1.
Resolution Number 2022-379
Title: Action Champlain Request - Colacem
Date: September 8, 2022

Moved By: André Roy
Seconded By: Violaine Tittley

BE IT RESOLVED THAT Council endorses the Petition submitted by Action Champlain to the Ministry of the Environment, and Climate Change Canada requesting the designation of Colacem Canada Inc.'s proposed cement plant project in L'Orignal, Ontario, as a Designated Project under the Impact Assessment Act;

BE IT FURTHER RESOLVED THAT this resolution be sent to the Honourable Steven Guilbeault, Minister of the Environment and Climate Change Canada, to Francis Drouin, MP Glengarry-Prescott-Russell and local area municipalities requesting their support.

CARRIED

Certified True Copy of Resolution

Alison Collard Sep 16, 2022

Alison Collard, Clerk Date:



1870 chemin de la Baie, L'Original ON K0B 1K0
actionchamplain.communications@gmail.com

September 14, 2022

To:
The Nation Municipality
958, route 500 West,
Casselman ON K0A 1M0

Via email :
Mayor François St-Amour francois.st-amour@nationmun.ca
c.c. Josée Brizard DG l.brizard@nationmun.ca

Subject: Request for support of Action Champlain's petition to Minister Steven Guilbeault

Mr. Mayor and Municipal Council of The Nation Municipality,

As you might know, Colacem has received a rezoning authorization to build a cement plant in L'Original, Ontario. Action Champlain appealed this decision to the Local Planning Appeal Tribunal (LPAT).

During the tribunal hearings, numerous errors and omissions were revealed in the file which was submitted to obtain an Environmental Compliance Approval (ECA) from the Ministry of the Environment, Nature Protection and Parks of the Ontario. Despite all these errors, the Ministry refused all requests to review its decision.

The fact that this project risks constantly exceeding air quality standards is only one of Action Champlain's major environmental concerns.

This is why Action Champlain asked the federal government, through the Minister of Environment and Climate Change, the Honourable Steven Guilbeault, to designate the Colacem cement plant project in L'Original as a project to be assessed under the Government of Canada's Impact Assessment Act.

This designation should enable a true assessment of the potential environmental impact of the cumulative emissions expected at the Colacem site: from the increased activity of the quarry, the lime plant, the asphalt plant and the cement plant project. This is the only process which will generate impartial, error-free, credible, reliable and complete data on this project.

Attached is a copy of our application for this cement plant project to be designated. This is the only way that will allow the regions concerned in Ontario and Quebec to obtain an environmental impact study that is credible and impartial.

The Township of Champlain, where the cement plant will be built, has already supported our request to send a letter of support to Minister Guilbeault.

We therefore ask for your support by writing a letter to Minister Guilbeault indicating that The Nation Municipality supports the request for designation submitted by Action Champlain on August 30, 2022 to designate the cement plant project in L'Orignal under the Impact Assessment Act (the IAA) (2019).

Here are his coordinates :

The Honourable Steven Guilbeault
Ministre de l'Environnement et du Changement climatique
Édifice Fontaine 12e étage
200 boul Sacré-Coeur
Gatineau QC K1A 0H3
Telephone: 819-938-3813
ministre-minister@ec.gc.ca
Steven.Guilbeault@parl.gc.ca
cc: L'Agence d'évaluation d'impact du Canada information@iaac-aeic.gc.ca

Please do not hesitate to contact us if you have any questions.

With thanks and appreciation,

Élaine Demers, Richard Lalonde, Michael Santella

Directors for Action Champlain

cc. MP Francis Drouin
MPP Stéphane Sarrazin
Township of Champlain



1870 chemin de la Baie, L'Original ON K0B 1K0
actionchamplain.communications@gmail.com

Le 14 septembre 2022

À l'attention de:
Municipalité de La Nation
958, route 500 West,
Casselman ON K0A 1M0

Via email :
Mayor François St-Amour francois.st-amour@nationmun.ca
c.c. Josée Brizard DG l.brizard@nationmun.ca

Objet :
Demande d'appui d'Action Champlain auprès du Ministre Steven Guilbeault

Monsieur le Maire et Conseil de la Municipalité de La Nation,

Comme vous le savez, Colacem a reçu l'autorisation de changement de zonage pour construire une cimenterie à L'Original, Ontario. Action Champlain a fait appel de cette décision auprès du Tribunal d'appel de l'aménagement local (TAAL).

Au cours des audiences de ce tribunal, de nombreuses erreurs et omissions ont été dévoilées dans le dossier qui a été soumis pour obtenir une Autorisation Environnementale (AE) du Ministère de l'Environnement, de la Protection de la nature et des Parcs de l'Ontario. Malgré toutes ces erreurs, ce dernier refuse les demandes de réviser sa décision.

Le fait que ce projet risque de dépasser constamment les normes de la qualité de l'air n'est qu'une des préoccupations majeures d'ordre environnementale d'Action Champlain.

C'est pourquoi Action Champlain a demandé au gouvernement fédéral, par l'entremise du Ministre de l'Environnement et du Changement climatique, l'honorable Steven Guilbeault, de désigner le projet de cimenterie de Colacem à L'Original comme projet à être évalué en vertu de la Loi sur l'évaluation d'impact du gouvernement canadien.

Cela permettra de déterminer si les émissions cumulées prévues sur le site de Colacem : de l'activité accrue de la carrière, de l'usine de chaux, de l'usine d'asphalte et du projet de cimenterie, dépasseront les normes environnementales en utilisant des données impartiales, sans erreurs, crédibles, sûres et complètes sur ce projet.

Vous trouverez, ci-joint, une copie de notre demande pour que ce projet de cimenterie soit désigné. C'est le seul moyen qui permettra aux régions concernées de l'Ontario et du Québec d'obtenir une étude d'impact environnemental qui soit crédible et impartiale.

Le Canton de Champlain, où la cimenterie sera construite, a déjà appuyé notre demande d'envoyer une lettre d'appui au Ministre Guilbeault.

Nous demandons donc votre appui à notre démarche en écrivant une lettre au Ministre Guilbeault en lui indiquant que la Municipalité de La Nation appuie la demande de désignation soumise par Action Champlain le 30 août 2022 pour désigner le projet de cimenterie à L'Orignal en vertu de la Loi sur l'évaluation d'impact (la LEI) (2019).

Voici ses coordonnées;

L'honorable Steven Guilbeault
Ministre de l'Environnement et du Changement climatique
Édifice Fontaine 12e étage
200 boul Sacré-Coeur
Gatineau QC K1A 0H3
Téléphone: 819-938-3813
ministre-minister@ec.gc.ca
Steven.Guilbeault@parl.gc.ca
cc: L'Agence d'évaluation d'impact du Canada information@iaac-aeic.gc.ca

SVP n'hésitez pas à nous contacter si vous avez des questions.

En vous remerciant sincèrement,

Élaine Demers, Richard Lalonde, Michael Santella

Administrateurs pour Action Champlain

cc. MP Francis Drouin
MPP Stéphane Sarrazin
Canton de Champlain

Action Champlain

Petition for the Designation of L'Original, Ontario Colacem Cement Plant project as Designated Project under the Impact Assessment Act (2019)

August 2022

1.0 Introduction

Colacem Canada Inc. (Colacem), a Quebec based company, has received an Environmental Compliance Approval (ECA) from the Ontario Ministry of the Environment, Conservation and Parks (MECP) to construct a Cement Plant (the 'Project') in L'Original which is in the Township of Champlain (Lower Tier municipality) and in the United Counties of Prescott and Russell (Upper Tier municipality) in Ontario.

1.1 Description of the proposed project

Colacem has proposed the construction of a cement plant facility comprised of 52 buildings and structures, including: raw material storages/silos, hoppers, conveyors, crushing and grinding systems, raw mill, preheater, rotary kiln, cooler and cooling tower, cement mill, and administrative offices and control room.¹

The proposed cement plant will have the capacity to produce 3,000 tonnes of clinker per day, with an estimated annual production of 1.16 million tonnes of Portland cement. It can operate up to 24 hours per day, 7 days per week, 52 weeks per year².

i. Location

The project is proposed for construction on Lot 217, Plan M100, located on the north side of County Road 17, west of L'Original, in the Township of Champlain. This lot is attached to an active quarry located immediately west of the proposed project site, which is also owned and operated by Colacem. The proposed project site is less than 2 km from the Ottawa River, a Canadian Heritage River which is a boundary water way between Ontario and Quebec. The property is 70 km from Montreal, Quebec and 70 km from Ottawa, Ontario. The site is 8 km from Alfred Bog, a 10,200-acre (4,200-hectare) wetland, which is a Nature Conservancy of Canada's conservation masterpiece where about 90 percent of the bog is under conservation ownership.

ii. Zoning change

In order to permit the proposed development, amendments to the United Counties of Prescott-Russell *Official Plan* and the Township of Champlain *Zoning By-Law No. 2000-75* were

¹ Colacem - Witness Statement - Rachel Gould (Consultation) 18Sep2020.pdf (page 136, 140, 233, 237).

² Colacem - Witness Statement - Sean Capstick (Air) 18Sep2020.pdf (page 40, 52, 302, 314).

required. The United Counties of Prescott and Russell (upper-tier municipality) *Official Plan* designated the site as a Rural Policy Area and subsequently approved to change the site designation to Trade and Industry Policy Area. Similarly, the Township of Champlain (lower-tier municipality) had designated the site as Rural Area and they declined to change its zoning from Rural Zone to Industrial Heavy Zone to allow for construction of the proposed cement plant.

Subsequently, on February 21, 2017, Action Champlain, (a citizen's group) filed a Notice of Appeal under s. 17(36) of the Planning Act against the United Counties of Prescott-Russell's decision to adopt the Official Plan Amendment No. 30 (the "OPA") to re-designate the Subject Lands from Rural Policy Area to Trade and Industry Policy Area with the Ontario Municipal Board (OMB).

Colacem filed an appeal under s. 34(11) of the Planning Act, against the Township's refusal to amend the Township Zoning By-law to rezone the Subject Lands from Rural Zone (RU) to Industrial Heavy – Special Zone (MG-3) and Industrial Heavy – Special Exemption Zone (MG-4) (the Zoning By-law Amendment, and together with the OPA, the "Planning Applications").

The Ontario Municipal Board (the "OMB") is continued under the name Local Planning Appeal Tribunal (LPAT) and, after several delays, the LPAT hearings took place in late 2020 and the Member's decision was issued April 12, 2021.

The LPAT Member, Nicholas Robinson, presided over the hearing. In his decision, he dismissed the zoning change appeal from Action Champlain and ordered the Township of Champlain to amend its By-Law to allow Colacem to build a cement plant.³

This decision concerned land use planning and is not related to this request.

However, in 2020, during the Local Planning Appeal Tribunal (LPAT) hearings against the zoning change for this project, expert witness reports and testimony revealed to the Tribunal that numerous errors of facts, important omissions, and some misrepresentation were made to the Ontario Ministry of the Environment, Conservation and Parks (MECP) in Colacem's application for an Environmental Compliance Approval (ECA). All of which were advantageous to Colacem in that they greatly underestimated pollutant emissions from the proposed cement plant and its adjacent quarry.

We believe that this new information is cardinal and that it will amply justify designating this project because it has the potential to cause significant environmental impacts to components of the environment that are within federal legislative authority.

³ Decision delivered by N.P. Robinson and order of the tribunal. Local Planning Appeal Tribunal - Tribunal d'appel de l'aménagement local. Issue Date: April 12, 2021. Case No(s):PL170756 <https://olt.gov.on.ca/tribunals/lpat/e-decisions/> and search for PL170756

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5.0 Minister's Authority to Designate under the Impact Assessment Act 2019 (IAA 2019)

There has not been an environmental impact study conducted by the municipal, provincial or federal government and none are planned.

The Act includes a discretionary authority that enables the Minister of Environment and Climate Change (the Minister) to designate a proposed project that is not on the Project List, if by virtue of its characteristics (e.g., the project is a new or unique type of project) or location (e.g., the project is proposed in an environmentally or otherwise sensitive location) the carrying out of the project may cause adverse effects within federal jurisdiction or adverse direct or incidental effects, or public concerns related to those effects warrant the designation⁴.

Under subsection 9(1) of the Act, the Minister may, upon request or on his own initiative, designate a project that is not on the Project List. Upon receiving a request to designate a project that is not on the Project List, the Minister will issue a response with reasons within 90 days after the day on which the request is received.

Subsection 9(7) of the Act prohibits designation of a project if the project has substantially begun or a federal authority has made a decision under another Act of Parliament that permits the project to be carried out.

The proposed cement plant has neither been constructed or begun operations, and so the physical activity at issue has not begun and the environment has not already been altered. Additionally, no federal authority has exercised a power or performed a duty or function conferred on it by any Act of Parliament to permit the physical activity to be carried out.

6.0 Minister's Authority to Refer Environmental Assessment to a Review Panel

Under subsection 36(1) of the Act, within 45 days after the day on which the notice of the commencement of the impact assessment of a designated project is posted on the Internet site, the Minister may, if he or she is of the opinion that it is in the public interest, refer the impact assessment to a review panel.

We request that the Minister refer the impact assessment to a review panel formed by non-governmental independent experts instead of having the project reviewed internally.

⁴ Operational Guide: Designating a Project under the Impact Assessment Act
<https://www.canada.ca/en/impact-assessment-agency/services/policy-guidance/designating-project-impact-assessment-act.html>

7.0 Rationale for the Designation Request

We hereby request, pursuant to 5.9(1) of the IAA, that the project be designated under the Impact Assessment Act (2019).

7.1 Summary

First and foremost, the proposed project has the potential to cause significant environmental impacts to components of the environment that are within federal legislative authority.

The reasons are summarised below:

This Ontario project will have transboundary impact in both the province of Quebec, and internationally.

- **Through water pollution**

Located mid-way between Ottawa and Montreal, the proposed cement plant is less than 2 kilometres from the Ottawa River, a Canadian Heritage River that is the border between Ontario and Quebec. **Several Ontario and Quebec municipalities rely on the River for their water supply.** Pollution from the kiln smokestack has the potential to pollute the atmosphere and the Ottawa River. There are also great risks of potential overflow, overspill, discharge, and runoff of contaminated water from the cement plant site and from the quarry to the Ottawa River through the Drain Charlebois which transects both sites.

- **Through air pollution**

Air pollution emitted by Colacem will impact both Ontario and Quebec similarly. The proposed cement plant, through its kiln smokestack alone, will be emitting 20 tonnes of 72 different pollutants per day, 15 of which are known to be dangerous and to bio-accumulate in plant, fish, native birds, migratory birds, meat, and the environment. Many are classified as carcinogenic, toxic to humans or animals and are hazardous to the environment.

- **Through interprovincial and international transport**

- Heavy duty 35 tonne diesel transport trucks will bring in raw material from Ontario, Québec and internationally shipped to ports in Quebec. Seventy percent of the cement powder produced will be delivered via Quebec: either for domestic use or to be exported internationally by ship from Montreal's ports, the impact of which merits federal review.
- Overall, there will be 71,700 truck trips a year to/from Quebec, driving 9,598,127 kilometers.

- These transport trucks will be emitting GHG (greenhouse gas), particulate matter, CO (carbon monoxide), NO_x (nitrogen oxide), SO₂ (sulphur dioxide), and dioxins and furans through their tailpipe.

Potential for Significant Adverse Environmental Effects

- ***There are 14 Species at risks (federally-listed)***

Three are listed as Endangered, six as Threatened, and five as Special Concern. All 14 have been observed either on Colacem's property or in the area. A 15th species is under consideration for addition and it is currently listed as endangered by the Ontario government.

- ***Some of the significant woodlands and the wetlands on Colacem's site will be destroyed***

The quarry expansion will destroy an important area which could harbor several species that are endangered, threatened and of special concern in these significant woodlands and wetlands.

- ***Fish habitats will be destroyed by the cement plant project and by its quarry expansion***

The Drain Charlebois, which runs directly into the Ottawa River, transects the site of the proposed cement plant project and the site of its quarry expansion. There are also numerous drainage channels where fish have also been observed. The cement plant overlaps the Drain Charlebois in the 2018 site plan and will likely be infilled. Furthermore, the Drain Charlebois, along with several types of drain channel, on the quarry site, will be completely destroyed when the quarry expands.

- ***Colacem's commissioned field inventory/survey was very narrow in scope***

Colacem's field inventory/survey was limited to one year (2015), 6 visits, and to 26% of its property (the cement plant site). None of the significant woodlands and the wetlands on the quarry site were surveyed although they will be totally destroyed by the quarry expansion and Colacem's surveyor hypothesized that some species at risks could be located there or on the adjacent properties.

- ***Other habitats of particular concern are:***

- the Ottawa River (a Canadian Heritage River) which is less than 2 km North where thousands of migratory birds are observed in the spring and in the fall,
- the Alfred Bog (the most significant peatlands in all of Eastern Ontario), managed by Ontario Parks as a Provincial Nature Reserve, 9 km away West,
- Atocas Bay Conservation Project managed by Ducks Unlimited (wetlands, 8 km away West),
- Pumpkinseed Bay, located in Quebec (bird staging location with over 200 different bird species recorded, 7 km away East)

These sites are all important ecosystems that support an abundance of plant life, animals, fish, native birds and migratory birds. Millions of dollars have been invested by governments and private groups in preserving and restoring ecosystems in this area.

The cumulative effects of physical activities reported for the project was erroneous

The Ontario Ministry of the Environment, Conservation and Parks asked Colacem to supply an Air Quality Cumulative Effects Study, including emissions from:

- Colacem's property: the proposed cement plant, Colacem's quarry, Colacem's asphalt plant, Colacem's lime plant
- Ivaco Rolling Mills facility located 4 kilometres East
- Background air quality

The quarry emissions were found to be underestimated by **a factor of 4 to 5 times** during the LPAT hearings, the conservatism of the quarry activities were exaggerated by **a factor of 240%**, and the wrong quarry emission model was used. **Cumulative emissions will be significantly above all of the levels that Colacem has reported.**

The project might adversely impact First Nations communities

The Mohawks of Kanasatake, a community on the shore of the Lake of Two Mountains in southwestern Quebec, are the closest First Nation most likely to be exposed:

- To contamination of their atmosphere from the kiln smokestack emissions
- To contamination of fish and migratory birds which form part of their traditional diet by pollutants in the Ottawa River

There have not been any apparent or meaningful consultations with potentially impacted First Nations living downstream from the proposed cement plant project by Colacem or by any level of government to understand how this project may adversely impact their aboriginal or treaty rights.

The government of Ontario is not acting in the best interest of the First Nations, Ontario, Quebec or Canada by denying a review of Colacem's Environmental Compliance Approval (ECA).

The Ontario Minister of the Ministry of the Environment, Conservation and Parks (MECP), Minister Piccini, despite the well documented and significant errors and omissions in Colacem's Cumulative Effects Study, systematically refused to revoke the Environmental Compliance Approval and ask for new studies based on accurate facts, on science and evidence.

This project will hinder the Government of Canada's ability to meet its climate change commitments

Overall, the proposed cement plant project will be emitting 0.83 megatonne (Mt) of greenhouse gas (GHG) a year. This represents a total of 41.6 Mt of GHG in the first 50 years. Colacem's yearly GHG emissions are equivalent to adding the **emissions of 181,074 gasoline cars a year**, not including the transport trucks GHG emissions, every year for the next 50 years or more.

This project will damage Canada's sustainability

The proposed cement plant, through its kiln smokestack alone, will be emitting 20 tonnes of 72 different pollutants per day, 6,660 tonnes per year and 333,000 tonnes for the first 50 years of the project. This is not sustainable. These mass of pollutants do not simply disappear. They will accumulate in our environment.

This project was rejected by 93% of the community

There is no social acceptability by the community for this project. When the public was consulted by either the lower-tier municipality (Champlain Township) or the upper-tier municipality (United Counties of Prescott and Russell), there was a 93 % rejection of the project when written opinions were counted.

Damaging impact on the regional economy that relies on agriculture and tourism

- ***This project has the potential to severely disrupt and negatively affect the area's regular economic activities because it will:***
 - Impact the agricultural land in the surrounding area, its productivity and sustainability
 - Impact food security by potentially contaminating various sources of food (wild and domestic)
 - Harm the area's agricultural industries
 - Harm the area's tourism industries
 - Compromise local and regional economic well-being into the future
- ***Potential negative impact of the proposed cement plant on agriculture***

The area is mostly prime agricultural land which has been at the heart of this region for generations. In fact 13% of Ontario's Agricultural and Agri-business is in Prescott and Russell which is also Canada's oldest agricultural region. This represents a huge portion of the local economy. In 2016, the economic contribution of agricultural production in Prescott and Russell was \$344 million.

Colacem will be emitting a total of 96 different pollutants (kiln and fugitive emissions):

- Some of which can directly damage plants, crops, and poison livestock

- 15 of which can bio-accumulate in plants, milk, fish, birds, migratory birds, meat and eggs and in our food chain
- ***Potential negative impact of the proposed cement plant on tourism***

The local economy relies heavily on tourism. The region benefits from 2 million people that visit the area yearly.

- The proposed cement plant will be built fronting County Road 17. This road is the major link between five of the eight municipalities of the United Counties of Prescott-Russell and it is the main way through which tourists access our area. The Ottawa River is another popular way through which vacationers enjoy our area.
- An important tourism deterrent will be the odours. Colacem will be emitting **3.7 metric tonnes per day** of sulphur dioxide through its kiln smokestack. Sulphur dioxide has a characteristic and pungent odor which is irritating, and which is associated with pulp and paper mills. These odours could be pervasive in an extensive radius around the cement plant which could be a major irritant to residents and local businesses, and an obstacle to the expansion of tourism in our area.
- The visual impact of the kiln smokestack, the smokestack plume, the cooling tower, and other structures will give the landscape the look of a heavy industrial zone, either from the road or from the river. This is never associated with a welcoming sight and it will be sufficient to deter many tourists from coming to this area.

This cement plant project is not essential nor is needed to support our Canadian infrastructures and construction industries.

There were 16 cement plants in operation in Canada in 2018 with 11 in Ontario and Quebec. Despite the fact that the cement industry is reportedly only operating at 60 % capacity, in 2018, Canada exported one third of the total domestic production of cement and this proportion has been steadily increasing since 2013. Internationally, Canada has been a net exporter of cement for many years and is consistently classified among the top 4 to 6 biggest exporters of cement in the world.

This cement plant project is not essential and is not needed to support our Canadian infrastructures and construction industries. Furthermore, it does have the potential to have devastating effects that will fundamentally undermine the environmental and socioeconomic landscape of the region by jeopardizing hundreds of jobs and by decreasing this area's ability to contribute to Canada's food security.

First Nations, Ontario and Quebec residents affected by this project deserve to have an accurate, thorough, and comprehensive Impact Assessment done on this project.

It should be noted that there has not been an environmental impact study conducted by the municipal, provincial or federal government.

7.2 Introduction

We will first present the rationale of why this petition should be considered even though a different group (Nature Canada) previously submitted a petition on the same proposed cement plant project to the Honourable Catherine McKenna on October 2, 2018 under CEAA 2012.

We then follow with a short introduction of the proposed cement plant project itself. These facts and figures are detailed and documented in the sub-sections below and/or in their respective Appendices, as indicated in the text.

The choice of headers of the following subsections was based on the lists of considered factors presented by the Impact Assessment Agency of Canada.^{5 6} They include facts and elements that are considered highly relevant to justify this request.

It should be noted that there has not been an environmental impact study conducted by the municipality, by the province or by the federal government.

7.3 A response to a prior request to designate the project has been rendered under the Canadian Environmental Assessment Act, 2012

Nature Canada, a different group, submitted a petition to the Honourable Catherine McKenna in 2018, requesting that this same project be designated under the CEAA 2012 (now repealed), and it was rejected. Appendix 9 contains a copy of the letter submitted by Nature Canada, to Minister McKenna dated October 2, 2018 and the reply letter of the Honourable Catherine McKenna to the petition request on April 1, 2019 (**Appendix 9**).

Since then, in 2020, in the course of a Local Planning Appeal Tribunal (LPAT) hearings appealing the zoning change for this project, expert witness reports and testimony revealed to the Tribunal that numerous errors of facts, important omissions, and some misrepresentation were made.

We believe that this new information is cardinal and that it will amply justify designating this project because it will cause several direct and indirect adverse effects within areas of federal jurisdiction.

Consequently, we hereby request, pursuant to 5.9(1) of the IAA, that this proposed project be designated and made subject to a federal impact assessment under this new legislation because

⁵ Operational Guide: Designating a Project under the Impact Assessment Act
<https://www.canada.ca/en/impact-assessment-agency/services/policy-guidance/designating-project-impact-assessment-act.html>

⁶ What is examined during a federal impact assessment
<https://www.canada.ca/en/impact-assessment-agency/services/policy-guidance/basics-of-impact-assessments.html#boia6>

new critical information has emerged that was not known when the original petition was submitted.

7.3.1 Colacem did not provide correct facts and figures to obtain their Environmental Compliance Approval

Below, there is a summary of the errors, omissions and misrepresentation that Colacem did in their submissions. **Full details along with explanations and references can be found in Appendix 4.** Most of these came to light during the Local Planning Appeal Tribunal (LPAT) hearings.

7.3.1.1 Errors of facts:

- Underestimation of stack emitted air pollutants emissions by 10.23% because US short tons values were used instead of metric tonnes.
Metrication in Canada began in 1970, more than 50 years ago, and it is difficult to believe that an air quality expert would make this type of error in the twenty-first century. These errors undermine the credibility of any facts, values, and reports that Colacem has submitted to obtain their Environmental Compliance Approval. Full details are presented in Appendix 4, Section 3.1.
- Two different values of kiln stack normalized flow rate values are used to refer to what is the same volume
These values are very important because they are used to model the air dispersion of the pollutants using very complex models where any errors will have an impact on the precision and accuracy of the results.
These errors highlight a lack of technical rigour, especially considering that these two values are one to three pages apart in several of the reports. Full details are presented in Appendix 4, Section 3.2.
This inaccuracy in reporting values that should be the same decreases the confidence that we should have concerning the accuracy and trustworthiness of the values put forth by Colacem in their support documents. How can any of their calculations be trusted and considered to be dependable?
- According to Colacem's documents, once they are operational, they expect that **THEIR EMISSION LEVELS OF DIOXINS AND FURANS WILL BE 80,000 TO 220,000 TIMES GREATER THAN THE MAXIMUM ALLOWED IN ONTARIO**
This is probably a confusion with some of the mass units.
However, it does show carelessness and inaccuracy. This lack of rigour puts in doubt the credibility of Colacem's calculations and conclusions. Full details are presented in Appendix 4, Section 3.3.
- The wrong quarry emissions model was used

This type of error does not inspire confidence in the precision and reliability of the values put forth by Colacem in their support documents. How can any of their calculations be considered as trustworthy and dependable? Full details are presented in Appendix 4, Section 3.4.

- Incorrect quarry emission values were used in the cumulative studies produced by Colacem
Incorrect values from 2016 were used. The federal government database official value for the 2016 quarry emission was 18 tonnes and Colacem used 16.1 tonnes instead. Full details are presented in Appendix 4, Section 3.5. Neither did they consider that the quarry activities will increase 4 to 5 times to supply the cement plant.
- Colacem states that, on the proposed cement plant site «CO, NO_x, SO₂, and D&F are only emitted from the kiln exhaust stack» **WHICH IS ABSOLUTELY ERRONEOUS.** Any machinery, transport trucks, or stationary engine using diesel as fuel will also emit these pollutants. D&F stands dioxins and furans. There will be a total of 134,898 heavy duty diesel transport truck trips (return trips included) on Colacem's cement site per year. Full details are presented in Appendix 4, Section 3.6.

7.3.1.2 Omissions of facts

- The adjacent quarry's expected increase in limestone extraction was not taken into account in the cumulative effects studies.
The quarry will have to extract 4 to 5 times more limestone to supply the proposed cement plant once it is operational. Full details are presented in Appendix 4, Section 4.1.
- Activities that were not taken into account
Considering the potential importance of the quarry's activities emissions, the transport trucks emissions, the diesel machinery or equipment emissions, the blasting emissions, it cannot be concluded that the Cumulative Effects Study submitted by Colacem, as stipulated by the MECP, is accurate and credible. Truck traffic on the site's unpaved roads was not taken into consideration. Full details are presented in Appendix 4, Section 4.2.

Colacem chose to omit the facts presented above although they should have been included in their application to the Ontario Ministry of the Environment, Conservation and Parks (MECP).

7.3.1.3 Misrepresentation of fact

- Colacem misrepresented the daily quarry activities by 240 %
Colacem's modelled emissions are based on the quarry operating 10 hours a day instead of the 24 hours a day that they repeatedly affirmed in their texts. Full details are presented in Appendix 4, Section 5.

Colacem overstated the conservatism of the values used in their emission models.

7.3.2 Colacem's field inventory/survey was limited to one year only (2015) and to a fraction of its property

Colacem's field inventory/survey was limited to only the 56 hectares of the immediate site where the cement plant will be built. This represents 26% of Colacem's property. Furthermore, the surveys were only done in a single year, 2015, at one to four different dates only, depending on the type of survey and only at a few locations within the 56 hectares. Additionally, several types of surveys were combined and conducted at the same time. Overall, the site was only visited at 6 different times in 2015.

Considering the scale of the proposed cement plant project, there should have been more surveys done, ideally several times within each season of the year, and for several years to truly characterize and identify all the wildlife and flora present.

Additionally the surveys should have been done on the entire Colacem property, including the significant woodlands and the wetlands on Colacem's site itself, and the ones adjacent to the property (Figure 1 and 2). This is essential since the **significant woodlands and the wetlands present on the adjacent quarry site will be totally destroyed by its expansion to meet production demands of the cement plant. Since the hearings, Colacem officially merged the quarry and the proposed cement plant lots, further supporting the view that both should have been part of the Environmental Compliance Approval (ECA).**

See Appendix 6, Section 4 and 5 for full details and references.

The person that did Colacem's field inventory/survey mentioned that some endangered, threatened and special concern species might be in the "**significant woodland**" present either on the quarry side of the property, on the proposed cement plant site, or on properties adjacent (Figure 1 and 2).⁷ No mentions concerning the **wetlands** on Colacem's property or adjacent to the property were made although the same could be expected.

The field inventory/survey of Colacem's proposed cement plant project should have been more comprehensive.

It should be noted that there has not been an environmental impact study conducted by the municipality, by the province or by the federal government.

⁷ Colacem - Witness Statement - Heather Melcher (Wildlife and Natural Environment) 18Sep2020.PDF

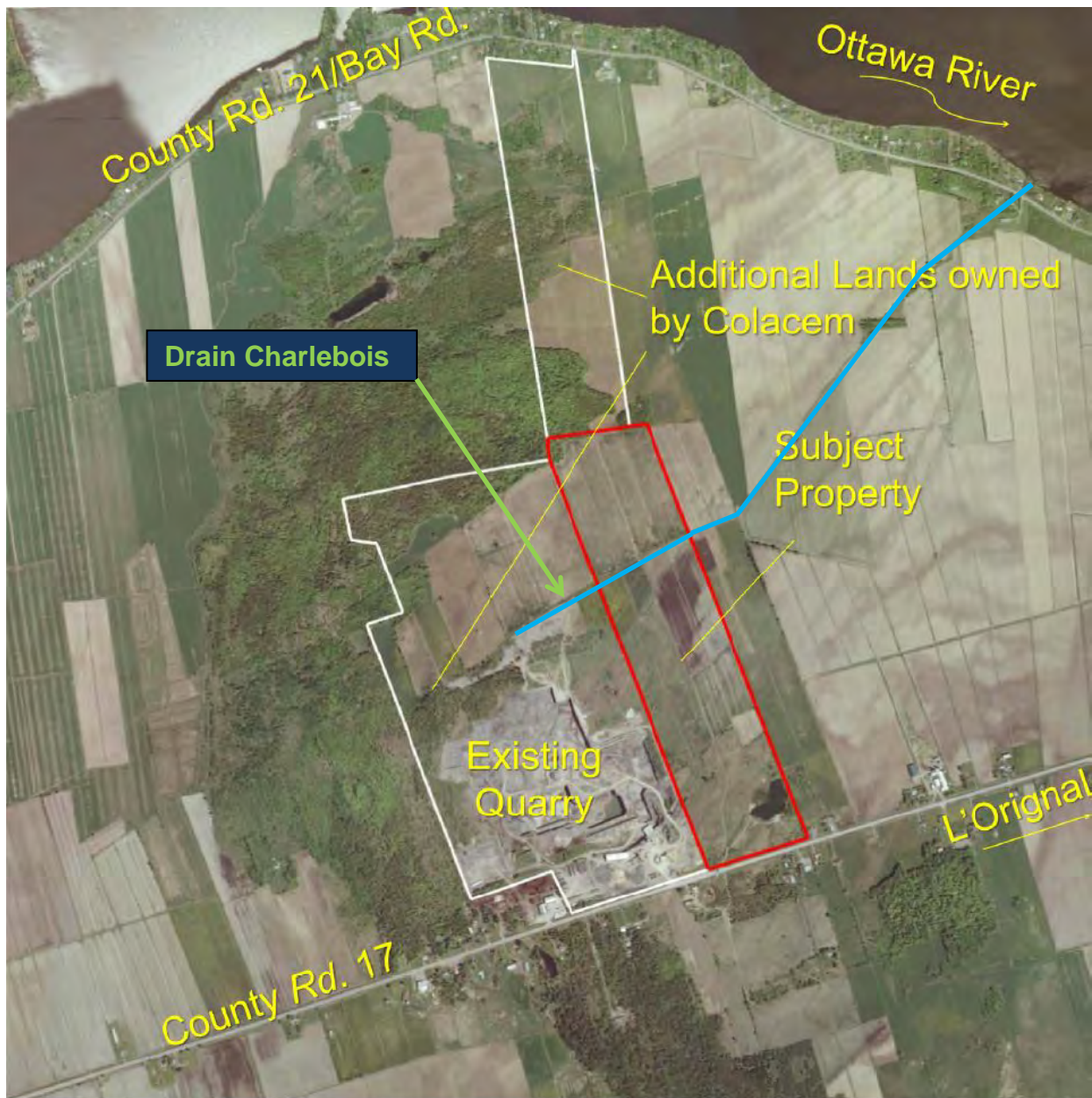


Figure 1. Aerial view of the lots owned by Colacem. It includes the existing quarry, the proposed cement plant project (Subject Property), and lands extending to 200 hundred meters from the Ottawa River. Screen capture from Display Boards used during Colacem Open Houses.⁸

The Drain Charlebois runs directly into the Ottawa River and its outline was added to Figure 1 to indicate its position.

⁸ Colacem - Witness Statement - Rachel Gould (Consultation) 18Sep2020.PDF (Page 51)

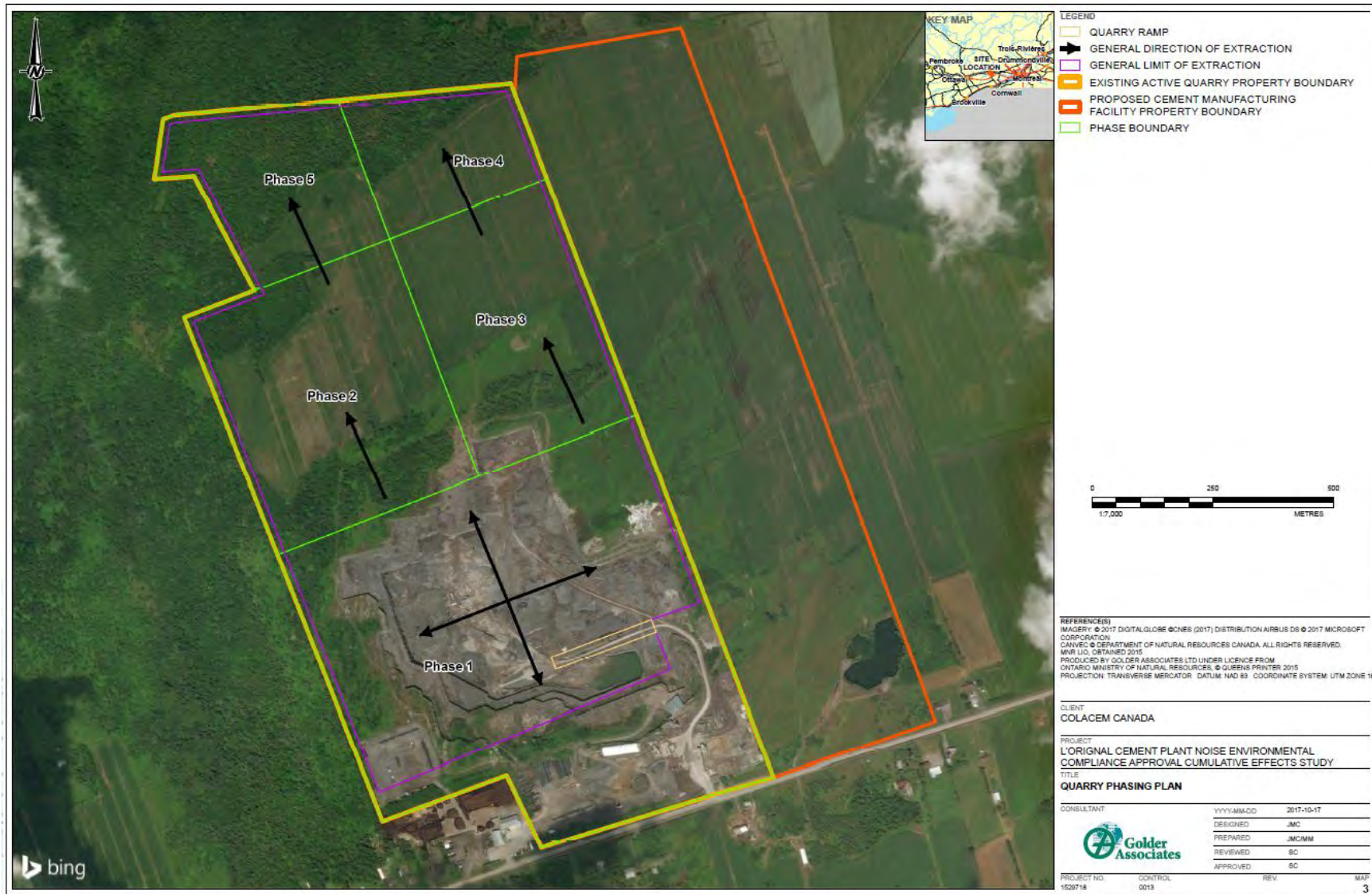


Figure 2. Planned expansion of the quarry. Screen capture of the “Quarry Site Phasing/Sequencing Plan” on page 257.⁹ **All the significant woodlands and the wetlands will be destroyed by the quarry expansion.**

⁹ Colacem - Witness Statement - Joe Tomaselli (Noise) 18Sept2020.PDF

7.3.3 The Ministry of the Environment, Conservation and Parks' approval (MECP) was based on incorrect information that they received from Colacem.

The Ontario Ministry of the Environment, Conservation and Parks (MECP) did not receive the information that it needed to allow it to make an informed decision concerning the adverse effects of the proposed cement plant projected emissions or of the cumulative emissions, especially with the emissions from the quarry.

How much confidence can the public of the municipalities of Eastern Ontario have in the Environmental Compliance Approval (ECA) granted to Colacem by the MECP if the reported pollutant emissions were incorrect values?

Full references and details are presented in Appendix 4.

7.3.4 The quarry and its extraction activities are an integral part of the proposed cement plant project and they should have been included together in the Environmental Compliance Approval (ECA) application. It was not.

The adjacent quarry is an integral part of the proposed cement plant project, so much so that Colacem had the two lots officially merged after the LPAT hearings. The cement plant cannot exist without the proximity of the quarry to supply it with limestone and the quarry will need to extract 4 to 5 times more limestone than its current commercial extraction to supply the cement plant.

Full details are presented in Appendix 4, Section 4.1.

Consequently, a joint Emission Summary and Dispersion Modelling (ESDM) should have been prepared that includes both the quarry and the proposed cement plant and this recommendation was made by an air quality expert witness at the LPAT hearings.

Mr. Sulley, who is the air quality expert witness for the Party that appealed the zoning change, Action Champlain, is quoted by the Local Planning Appeal Tribunal (LPAT) Member in his Decision:

[207] Despite these concessions, Mr. Sulley took issue with the Air CES on the basis that it: (i) contained certain minor errors; (ii) was completed using publicly available NPRI data for the Colacem quarry, rather than the actual measurement of emissions sources at the quarry through the preparation of a joint ESDM; and (iii) the fact that the Air CES did not fully account for the increased extraction of limestone at the quarry to be used by the Plant once it is operational.¹⁰

¹⁰ Decision delivered by N.P. Robinson and order of the tribunal. Local Planning Appeal Tribunal - Tribunal d'appel de l'aménagement local. Issue Date: April 12, 2021. Case No(s): PL170756 <https://olt.gov.on.ca/tribunals/lpat/e-decisions/> and search for PL170756

This would also have enabled the development and implementation a proper Best Management Practices Plan (BMPP) for both the quarry and the proposed cement plant together, not just the cement plant alone. **As it currently is, there is no such plan for the quarry.**

In the text above, “minor errors” in paragraph [207] is based on Mr. Capstick’s, Colacem air quality expert witness, reaction when he was made aware of his mistake of having used US tons instead of metric tonnes. He is the one that made this error. He also then stated that his 10.23 % lower values error was “an insignificant amount”. A fraction of 1% could be considered insignificant in some circumstances, but more than 10% is anything but insignificant. This is probably what the Member was referring to when he wrote "minor errors".

Here is the text we are referring to as quoted by the Local Planning Appeal Tribunal Member in his Decision¹⁰:

[40] The Tribunal heard testimony that a calculation error surrounding the failure to convert imperial units to metric units (ton versus tonne) would have increased emissions data by “an insignificant amount”. The Tribunal accepts this conclusion but notes that additional errors were revealed in subsequent cross examination.

Consequently, any impact assessment should at least include both the quarry and the proposed cement plant.

7.3.5 The Ontario Minister of the Ministry of the Environment, Conservation and Parks (MECP) refuses to reconsider the Environmental Compliance Approval despite the errors and omissions uncovered during the LPAT hearings

Several groups and citizens, along with the region’s MP (Francis Drouin) and MPP (Amanda Simard), wrote to the MECP Minister asking him to revoke the ECA and requested new studies. Minister Piccini systematically refused.

Full copies of some of the letters sent to the minister and his replies are presented in Appendix 5.

7.3.6 Sensitive ecosystems of particular concern

First and foremost, all fish habitats on the proposed cement plant site and on the quarry site will be destroyed. **See Appendix 10 for full details.**

It is also a great concern that the environment will suffer because the studies and reports submitted to the Ontario Ministry of the Environment, Conservation and Parks contained errors and omissions of facts and that **EMISSIONS WILL BE ABOVE ALL OF THE LEVELS THAT COLACEM HAS REPORTED.**

It should furthermore be noted that even when pollution levels are within the Ontario regulatory limits, it does not mean that there are no effects on the environment. Particularly of concern is the compounding effect of some of the pollutants as they accumulate with time and the fact that some ecosystems are more susceptible than others to changes in their environment.

Notwithstanding the errors of facts, the omissions of facts and misrepresentation of fact that invalidate the Environmental Compliance Approval that Colacem received from the Ontario Ministry of the Environment, Conservation and Parks, there are several broad concerns that extend far beyond the 56 hectares of Colacem's property that were subject to a field inventory/survey.

To better assess the potential impact of this project on the environment, ecosystems, birds, migratory birds, and wildlife habitats, an appropriate study should cover the much larger area that will be affected by the proposed facility's emission of 96 different pollutants. **Full details of these pollutants and their effects are presented in Appendix 3 and in Appendix 6, Section 3.**

Of particular concern are:

- the Ottawa River which is less than 2 km North where thousands of migratory birds are observed in the spring and in the fall,
- the Alfred Bog (the most significant peatlands in all of Eastern Ontario), managed by Ontario Parks as a Provincial Nature Reserve, 9 km away West,
- Atocas Bay Conservation Project managed by Ducks Unlimited (wetlands, 8 km away West),
- Pumpkinseed Bay, located in Quebec (bird staging location with over 200 different bird species recorded, 7 km away East)

These sites are all important ecosystems that support an abundance of plant life, animals, fish, native birds and migratory birds. Millions of dollars have been invested by governments and private groups in preserving and restoring ecosystems in this area.

These sites should be included if there is ever an environmental impact assessment study conducted to truly evaluate the potential adverse effects of the proposed cement plant.

7.3.7 There are 14 federally-listed endangered, threatened and special concern species on the site or in the area

Three are listed as Endangered, six as Threatened, and five as Special Concern and have been observed either on Colacem’s property or in the area. A 15th species is under consideration for addition by the federal government and it is currently listed as endangered by the Ontario government.

Full details of these pollutants and their effects are presented in Appendix 3 and 6.

Table 1. Summary compilation of the status of **federally-listed endangered, threatened and special concern species** observed on the site of the proposed cement plant or in areas close to the site.

Species	SARA^A	ESA^B	Location
Monarch	Special Concern ^C	Special Concern	Observed by Colacem on site
Barn Swallow	Threatened ^D	Threatened	Observed by Colacem on site
Bobolink	Threatened	Threatened	Observed at Atocas Bay ^E
Eastern Meadowlark	Threatened	Threatened	Observed at Atocas Bay
Short-eared Owl	Special Concern ^C	Special Concern	Observed at Atocas Bay
Least Bittern	Threatened	Threatened	Observed at Atocas Bay
Western chorus frog Great Lakes St. Lawrence / Canadian Shield population	Threatened	Not listed	Observed in the area
Midland Painted Turtle	Special Concern	Not listed	Observed in the area
Snapping Turtle	Special Concern	Special Concern	Observed in the area
Spiny Softshell	Endangered	Endangered	Possibly extirpated from the area
Spotted Turtle	Endangered	Endangered	Observed in the area
Grasshopper sparrow	Special Concern	Special Concern	Observed in the area
Chimney swift	Threatened	Threatened	Observed in the area
Black Ash	Under consideration for addition ^C	Endangered	Possibly on site, is in the area
Butternut	Endangered	Endangered	Possibly on site, is in the area

^A Canadian government Species at Risk Act.

^B Ontario. Endangered Species Act (ESA), 2022. Ontario Regulation 230/08: Species at risk in Ontario list

^C Eventually will change to Threatened

^D Eventually will change to Special Concern

^E Atocas Bay stands for “Atocas Bay Conservation Project wetland”, 8 km away. Managed by Ducks Unlimited

7.4 Description of the proposed project

Colacem has proposed the construction of a cement plant facility comprised of 52 buildings and structures, including: raw material storages/silos, hoppers, conveyors, crushing and grinding systems, raw mill, preheater, rotary kiln, cooler and cooling tower, cement mill, and administrative offices and control room. **See Appendix 1 for the full details along with references.**

The proposed cement plant will have the capacity to produce 3,000 metric tonnes of clinker per day, with an estimated annual production of 1.16 million metric tonnes of Portland cement. This volume would be produced with the plant operating 24 hours per day, 7 days per week for approximately 333 days a year although it could operate up to 52 weeks per year for the next 50 years. **See Appendix 1 for the full details along with references.**

Briefly, the cement powder produced by the proposed cement plant will be transported by trucks west towards Ottawa and east for delivery either in the province of Quebec or to be exported internationally by ships and also possibly by ships or trucks to the US.

Overall, this heavy industry will **permanently alter the character of this community** by its structures such as the kiln smokestack and the cooling tower which will have the height equivalent to a 37 to 41 story building. These structures will dominate the rural landscape of this area and the view from the Ottawa River (a Canadian Heritage River), which are both huge touristic attractions for this area. The cement plant yearly traffic of 94,076 trips of heavy duty diesel trucks coming in or out of its property will also contribute in altering the rural character of the area to that of an industrial zone. **See Section 7.4.2 below for more details.**

First we will give a brief overview of the location of the site of the proposed cement plant in order to establish the overall geographical context. This will be followed by a presentation of some of the facts and figures concerning the proposed cement plant and its activities. These will include the physical aspects of the plant, including its visibility. This will be followed by the transport trucks activities within and outside the proposed site, pollutant emissions, greenhouse gas (GHG) emissions, and pollutants adverse effects.

7.4.1 Location

The proposed cement plant will be located approximately mid-way between Ottawa and Montreal, less than 2 kilometers from the Ottawa River, a Canadian Heritage River, in Eastern Ontario.

This area is mostly prime agricultural land which has been at the heart of this region for generations. In fact 13% of Ontario's Agricultural and Agri-business is in Prescott and Russell which is also Canada's oldest agricultural region. This represents a huge portion of the local economy. In 2016, the economic contribution of agricultural production in Prescott and Russell was \$344 million. See Appendix 8, Section 4 for the full details along with the references.

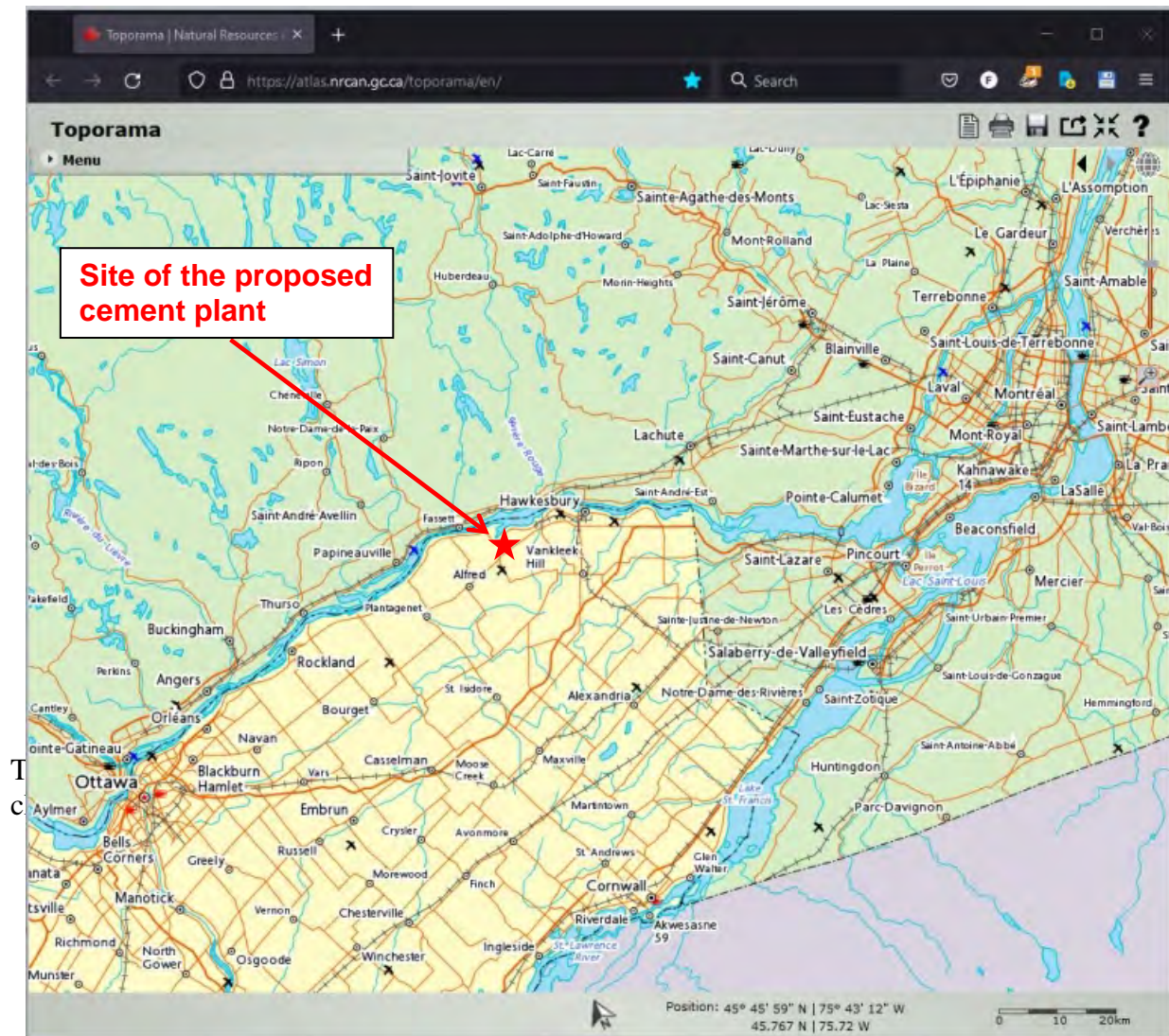


Figure 3. Map illustrating the location of the proposed cement plant in Eastern Ontario. It is less than 2 kilometers away from the Ottawa River, a Canadian Heritage River.



Figure 4. More detailed map showing where the proposed cement plant will be located in relation to the Ottawa River, a Canadian Heritage River.

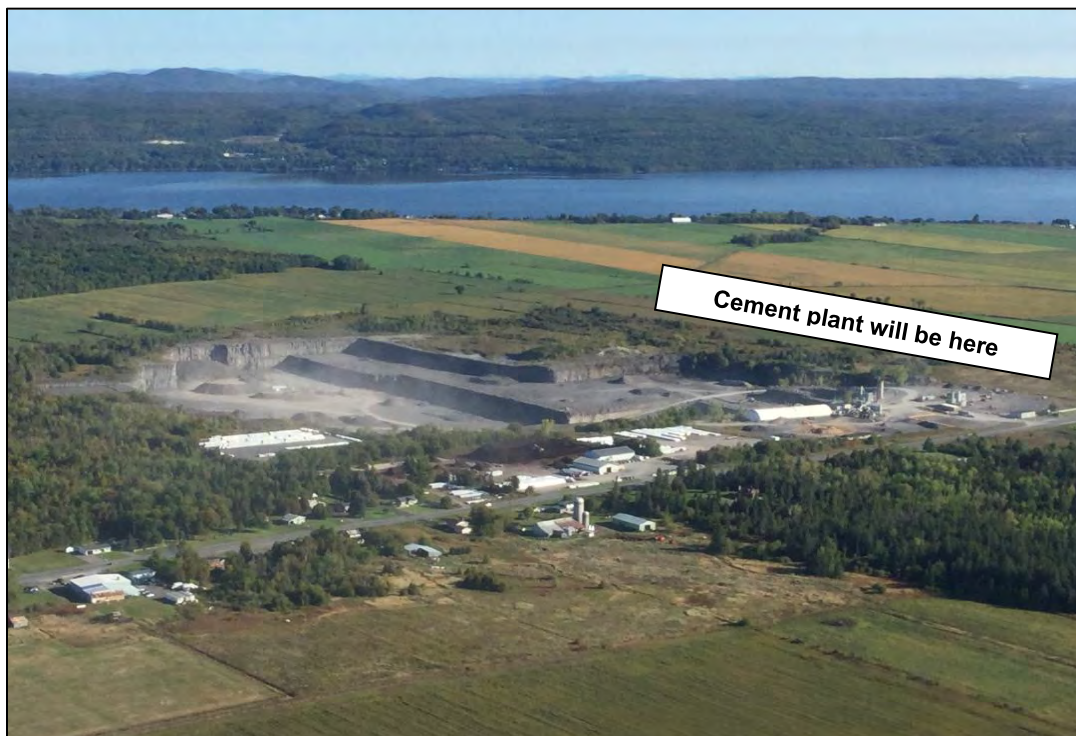


Figure 5. Aerial view looking north towards the Ottawa River with the Colacem quarry in the foreground. The proposed cement plant site location has been indicated by a text box.

7.4.2 Facts and figures concerning the proposed cement plant.

The details for these facts and figures can be found in **Appendix 1**. The sources of the information are also fully documented there. **Please note that these values were found or calculated using the information that Colacem provided in their various reports.**

- As proposed, the cement plant consists of 52 buildings and structures, including material storage, hoppers, conveyors, crushing and grinding systems, a raw mill, preheater, rotary kiln, kiln stack, cooling and cooling tower, cement mill and administrative offices.
- An estimated 500 m³/day or 180,000 m³/year of water will be used by the proposed cement plant to manufacture cement.
- According to Colacem, the proposed cement plant kiln will run 24 hours a day, 7 days a week and 11 months a year, although it could run 365 days a year.
- The kiln will run at 1450 C.
- The kiln smokestack will be 125 metres tall which was a height equivalent to a 35 to 41 story building in 2017.
- Once operational, the proposed cement plant kiln smokestack will be emitting a combined volume of 1,000,000 m³ of gas, particulate matter, vapours, and pollutants **an hour** (plume), 24 hours a day and 11 months days a year.
- 100 meters of the kiln will be visible from 14 km around (80% of its height). As well as the kiln and cooling tower, 8 other structures of the site will be visible from 14 km away.
- The kiln stack and its cooling tower will still be visible from over 43 kilometers away
- When the plant will be in operation, the plume could be visible from well over 50 kilometers away.



Figure 6. Map showing the municipalities that are within a radius of 43 kilometers from the kiln smokestack of the proposed cement plant. The municipalities in the yellow area are within Eastern Ontario while the ones in the green area are in Quebec. Depending on ambient conditions, an observer 43 kilometers away, with an unobstructed line of sight, could see the upper part of the kiln smokestack along with its cooling tower. An observer 50 kilometers away will have a full view of the plume of the kiln smokestack.

The following towns and villages are located within this 43 kilometres radius:

In Québec:

- Brownsburg
- Calumet
- Chénéville
- Fassett
- Grenville
- Grenville-sur-la-Rouge
- Lachute
- Montebello
- Notre-dame-de-la-Paix
- Papineauville
- Plaisance
- Rigaud
- Ripon
- Saint-André-Avellin
- Saint-André-Est
- Sainte-Justine-de-Newton
- Thurso

In Ontario:

- Alexandria
- Alfred
- Bourget
- Casselman
- Chute-à-Blondeau
- Clarence Creek
- Glen Robertson
- Hawkesbury
- L'Orignal
- Maxville
- Moose Creek
- Plantagenet
- Pointe-Fortune
- Rockland
- St-Eugène
- St-Isidore
- Vankleek Hill
- Wendover

7.4.3 Facts and figures concerning the transport trucks traffic as a result of the activities of the proposed cement plant.

There are two types of transport trucks that will be used by the proposed cement plant. Both types are heavy duty diesel trucks:

- Internally, extra heavy duty diesel transport trucks will be carrying 65 metric tonnes of raw material per load, from the adjacent quarry to the proposed cement plant site
- Externally, heavy diesel transport trucks will be carrying 35 metric tonnes of raw material per load. They will either be bringing in raw material from outside the site or they will be delivering cement powder outside the site (see Figure 7 below for a photo of a typical transport truck, as illustrated by Colacem).
- The raw material will come from Ontario, Québec and internationally (picked-up at the Port of Montréal (Contrecoeur Marine Terminal) or at the Port of Valleyfield).
- The cement powder produced by the proposed cement plant will be transported by trucks west towards Ottawa (30%) and east (70%) for delivery either to Quebec clients or to be exported internationally by ships and also possibly by ships or trucks to the US.¹¹

The impact of which merits federal review.

All the facts and figures are fully documented in Appendix 1, section 4.6, 4.7 and 4.8.



Figure 7. Photo of a typical truck that will be used to transport material to and from the proposed cement plant. Screen capture from Colacem Witness Statement.¹²

¹¹ Colacem - Witness Statement - Joe Tomaselli (Noise) 18Sept2020.PDF (page 70)

¹² Colacem - Witness Statement - Rachel Gould (Consultation) 18Sep2020.PDF (Pages 111, 126, 208, 223)

- Yearly, there will be a total 94,076 truck trips (return trips included) outside of the Colacem’s site to deliver cement powder or to collect raw material.
- There will be 71,700 trips to Quebec and beyond, and there will be 21,006 trips towards Ottawa. There will also be 1,370 trips locally to collect iron.
- Overall, the heavy duty diesel transport trucks (35 tonne) will be driving 9,598,127 kilometers either to collect raw material out of the proposed cement plant site or to deliver cement powder.
- Internally, the extra heavy duty transport trucks (65 tonne) will be driving 40,822 kilometers bringing limestone from the quarry to the cement plant site.
- Conservatively, on-road and off-road, the proposed cement plant trucks will be driving 9,638,949 kilometers per year in total. This distance is equivalent to driving to the moon one way 25 times. According to NASA, the moon is 384,400 km away from Earth, on average.

7.4.4 Pollutants that will be released by the proposed cement plant and its activities.

The emissions generated by the proposed cement plant and its activities can be grouped in two broad categories:

- 1- the kiln smokestack source which will be emitting the greatest number of different pollutants in the atmosphere;
- 2- fugitive emissions from most activities taking place on the site of the proposed cement plant, from raw material transport, receiving and processing to delivery of cement finished products along with numerous intermediate steps.¹³

Overall there will be a total 96 different pollutants that will be emitted either by the kiln smokestack or by fugitive emissions from raw materials or from both.

A total of approximately 20 metric tonnes a day of pollutants will be released in the atmosphere by the proposed cement plant kiln and its activities.

See Appendix 1, for the full details along with the references.

7.4.5 Greenhouse gas (GHG) that will be emitted from the kiln operation

Overall, the proposed cement plant project will be emitting 0.83 megatonnes (Mt) of greenhouse gas (GHG) a year. Even if the plant was only powered by solar or wind energy, the calcination of the limestone would still produce 0.52 Mt a year. The details are presented in Table 2 below.

¹³ Colacem - Witness Statement - Sean Capstick (Air) 18Sep2020.pdf (page 131-132 and 396-397)

On average the proposed cement plant will emit 2,500 metric tonnes of greenhouse gas (GHG) per day of operation.

Table 2. Yearly production of CO₂e (carbon dioxide equivalent) by the proposed cement plant.

	Metric tonnes per year
Metric tonnes of CO ₂ produced from limestone calcination in a year	519,480 ^A
Metric tonnes of CO ₂ e produced from petroleum coke in a year	313,462
Total number of metric tonnes of CO₂e emitted in a year	832,942

^A This quantity of greenhouse gas (GHG) would be emitted by that process even if the whole plant was powered by clean energy. The calcination of the limestone will release this quantity of CO₂ regardless of its energy source.

All the GHG facts and figures are fully documented in Appendix 1, Section 4.10 and Appendix 7.

This project will emit 41.6 Mt of greenhouse gas (GHG) for the first 50 years of operation.

7.4.6 Potential adverse effects caused by the pollutants emitted by the proposed cement plant and its operations

The proposed cement plant will be emitting approximately 20 tonnes of pollutants a day from its kiln smokestack which will contain 72 different pollutants.

See Appendix 3 for full details and complete references.

In the area where the proposed cement plant will be built, the four most important pollutants, in mass, that will be smokestack emitted will be:

- Suspended particulate matter which will increase 4 times the current area emissions
- Nitrogen Oxides (NO_x) which will increase 16 times the current area emissions
- Sulfur Oxides (SO_x) which will increase 44 times the current area emissions
- Carbon monoxide (CO) which will increase 41 times the current area emissions

Overall, the 72 different pollutants that will be emitted by Colacem's kiln smokestack can potentially have a huge impact on the environment and on the population's health.

Table 3. Summary of the potential effect on health and the environment from some of the inorganic and organic pollutants that will be emitted by the kiln smokestack of the proposed cement plant. Rows in pink are associated with risks to humans while rows in blue are associated with risks to animals and to the environment.

Risks ^A	Organic pollutant	Inorganic pollutant	Combined
Total number of pollutants with a CAS ^B number	36	26	62
Corrosive	1	7	8
Poison	5	10	15
Toxic to humans	3		3
Carcinogenic to humans	3	3	6
Probable human carcinogen	9	1	10
Possibly carcinogenic to humans	3	1	4
Carcinogenic to animals and birds	13	4	17
Possibly carcinogenic to animals and birds	1		1
Toxic to animals and birds	1		1
Very toxic to aquatic organisms	7	3	10
Toxic to aquatic organisms	9	2	11
Harmful to aquatic organisms	2	1	3
Accumulates in plants, animals and birds	10	5	15
May be hazardous to the environment	9	3	12
It is strongly advised that this substance does not enter the environment ^C	7	1	8

^A A compound can have more than one risk associated with it. **The full details of the risks are presented in Appendix 3.**

^B CAS Registry Number is a unique numerical identifier assigned by Chemical Abstracts Service (CAS) to every chemical substance described in the open scientific literature

^C These pollutants are: biphenyl, chlorobenzene, chrysene, dioxins and furans (teq), ethylbenzene, pyrene, styrene, thallium

Dioxins and furans

Among these pollutants, dioxins and furans are of grave concern. They are some of the most toxic industrial chemicals known to science.

It is worrisome that, had the proposed cement plant operated in 2017:

- it would have emitted 13 % of all the smokestack emitted dioxins and furans from all industries in Ontario.
- it would have been the 4th largest smokestack emitter of dioxins and furans in Ontario
- it would have ranked 9th for all of Canada out of 123 dioxins smokestack emitters.

This means that this region would have been among the most polluted area by stack emitted dioxins and furans in all of Ontario and Canada by some of the most dangerous chemicals.

Compared with the cement plants already operating in Canada, if the proposed cement plant had been in operation in 2016 and 2017:

- It would have emitted 13 to 32 times more than the average reported by the 13 Canadian cement plants that emitted dioxins and furans in 2016 and 2017, respectively.
- It would have been the **biggest** emitter of dioxins and furans compared with all the other cement plants in Canada in 2016 or 2017
- In 2017, it would have emitted more than twice the total of all other cement plants together.

The threats posed by dioxins became widely known because of Agent Orange, an herbicide and defoliant used in the Vietnam War. They were also contaminants of transformer's oil (PCB) last century.

- Dioxins are extremely persistent environmental pollutants
- Dioxins accumulate in the food chain
- Dioxins are highly toxic and can cause cancer and other health problems

Acid rain

The proposed cement plant will be emitting a combined mass of 10.72 tonnes a day of nitrogen oxides (NO_x) and of sulfur oxides (SO_x) for a total of 3,570 tonnes a year. These emissions will add up to 178,500 metric tonnes of potential acid rain pollutants for the next 50 years that the cement plant will be in operation. This represents an extremely high risk of acid rain for the environment.

Acid rain causes damages to the environment, to water bodies, to forests, and to soils. It was the major factor in the decline of sugar maples last century. It can also cause a severe thinning of eggshells or even their complete disappearance in wild birds.

Another devastating effect of acid rain is that it acidifies lakes and streams. Once acidified, lakes and streams become unsuitable for fish, it decreases species richness, community composition, and biodiversity in freshwater ecosystems.

Under our local climate, acid rain can also cause "episodic acidification" when the snow melts or after heavy rain. This can cause a surge in acid water washing down into rivers and lakes, severely disturbing ecosystems.

Nitrogen fertilizer

Nitrogen oxides, when not converted to nitric acid, can act as a nitrogen fertilizer to freshwater ecosystems. This nitrogen enrichment causes the eutrophication of rivers and lakes by stimulating excessive plant and algae growth (algal blooms). When that plant material decays, it depletes the oxygen in the water, killing aquatic life (fish and plants). Eutrophication leads to decreases in the number of different fish species and in the number of fish, and potentially to the disappearance of fish and plants.

When this NO_x, as a nitrogen fertilizer, lands on the soil of forests, bogs, or of other ecosystems, it can drastically alter plant populations. It has the potential to promote the growth of some plant species to the detriment of other species, breaking an equilibrium that an ecosystem might have taken centuries or more to reach. This is a very serious threat to all the conservation areas in our region, including the Ottawa River.

VOC, PAH and phthalates

Other types of pollutants that will be emitted by the kiln smokestack that can have a negative impact on the health of the local residents, on the wildlife and on the environment are:

- Volatile organic compound (VOC) of which the proposed cement plant will be emitting 15 different VOC compounds. Some of which are dangerous to human health or cause harm to the environment
- Polycyclic aromatic hydrocarbon (PAH). The proposed cement plant will be emitting 15 different PAH compounds. Cancer is a primary human health risk of exposure to PAHs and it has been linked to cardiovascular disease and poor foetal development
- The proposed cement plant will be emitting 2 different phthalates. One of these is considered as a Probable Human Carcinogen and that there is sufficient evidence of carcinogenicity in animals. It is also considered as an endocrine disruptor. The other phthalate is a suspected endocrine disruptor in animals.

Persistent pollutants and bio-accumulation

Some of the pollutants could persist in our environment and eventually accumulate over the years to reach levels that could be dangerous and unsafe in our soils and waterways.

Unfortunately, there could also be a more insidious way through which these pollutants could harm agriculture and producers. It could be by contaminating the food supply chain.

There are 15 pollutants that will be emitted by Colacem that can be bio-accumulated and that are toxic or carcinogenic. They have the potential to be bio-accumulated in plants, milk, fish, native birds, migratory birds, meat and eggs. Thereafter, they could eventually end up in the human food chain (Table 4).

Table 4. List of 15 pollutants that will be emitted by the proposed cement plant that are known to be dangerous and that bio-accumulate in plant, fish, meat, and the environment.

Organic pollutants	Inorganic pollutants
Benzo(a)anthracene	Barium
Benzo(a)pyrene	Lead
Benzo(k)fluoranthene	Mercury
Biphenyl	Selenium
Bis(2-ethylhexyl) phthalate	Thallium
Chrysene	
Dibenz(a,h)anthracene	
Dioxins and Furans (TEQ)	
Indeno(1,2,3-cd)pyrene	
Pyrene	

7.5 The purpose of, and need for, the project

This section discusses the potential economic impact of the proposed cement plant on Ontario and Canada.

Full details and references are in Appendix 2.

We first look at the overall cement industry in Canada and at our Canadian needs in construction materials and supplies. We follow by looking at the export markets and at Colacem's markets.

We then compare the potential economic benefits of the cement plant vs the economic risks to the region. We first explore the job situation in Prescott-Russell followed by a look at the importance of tourism for the area. We then follow by looking at some of the potential effects that Colacem's cement plant could have on agriculture in Prescott-Russell.

We conclude by assessing the extra costs in greenhouse gas (GHG) costs and mitigation that Canadian taxpayers will have to bear collectively if this industry is established in Ontario and in our country.

The detailed calculations and the supporting data are presented in Appendix 2.

7.5.1 Do we need another cement plant in Canada?

The project proposes the construction and operation of a cement plant that will produce 1,160,000 (1.16 million) metric tonnes of cement a year.

There were 16 cement plants in operation in Canada in 2018.

There are currently 6 cement plants operating in Ontario and 5 operating in Quebec.

Canada has been a net exporter of cement for many years. In 2018, we exported 4.5 million tonnes of cement out of Canada. This represents one third of the total Canadian production of cement and this trend has been steadily increasing since 2013.

Internationally, Canada is consistently classified among the top 4 to 6 biggest exporters of cement in the world.

According to the Cement Association of Canada and some cement company members, the cement industry was operating at approximately 60 % capacity in 2014 and new cement plants were not required.¹⁴¹⁵ In 2019, the industry was still being reported as operating at less than full capacity¹⁶.

¹⁴ Québec déçoit l'Association du Ciment <https://www.tvanouvelles.ca/2014/01/30/quebec-decoit-lassociation-du-ciment>

¹⁵ Libre opinion - Cimenterie à Port-Daniel : un sacrifice d'emplois <https://www.ledevoir.com/opinion/libre-opinion/399295/cimenterie-a-port-daniel-un-sacrifice-d-emplois> (Accessed Sept. 15, 2020)

Colacem, in their various brochures and in their expert witness statements has stated that they will export 70 % of their production out of Ontario¹⁷¹⁸ and out of Canada.¹⁹

This cement plant is not essential and not needed to support our Canadian infrastructures and construction industries.

Furthermore, the Federal government and the Cement Association of Canada partnership to reduce greenhouse gas (GHG) will be undermined since Colacem is not a member of the Cement Association. The project will go ahead without any federal oversight.

The text above summarizes the information which is fully documented along with its sources fully referenced in Appendix 2.

7.5.2 Do we need the jobs that this cement plant will create?

Colacem is stating that they will create 125 direct employment opportunities, with an average salary between \$25/hr and \$35/hr.²⁰

Prior to the Covid-19 pandemic, there were over 600 jobs advertised in the region of Prescott-Russell and employers had difficulty filling positions. As of March 23 2022, there are 651 jobs advertised in Prescott-Russell and employers are still having difficulty filling positions.²¹

Colacem might actually exacerbate the manpower shortage in our area.

When the latest Canadian cement plant project (Port-Daniel-Gascons, QC) was built, union representatives decried this project as a job killer for the other cement plants in Quebec.²²

¹⁶ Christopher Corriveau. 2019. Une analyse coût-bénéfice de la cimenterie de Port-Daniel-Gascon-Mémoire. Maîtrise en économie - avec mémoire. Maître ès arts (M.A.). Université Laval <https://corpus.ulaval.ca/jspui/bitstream/20.500.11794/34037/1/35047.pdf>

¹⁷ Colacem - Witness Statement - Christopher Lyon (Traffic) - 17September2020.pdf (Pages 58, 70)

¹⁸ Colacem - Witness Statement - Marc Bataille (Background) - 18September2020.pdf (page 7)

¹⁹ Colacem - Witness Statement - Rachel Gould (Consultation) 18Sep2020.pdf (Pages 136, 140, 233, 237)

²⁰ Colacem - Witness Statement - Marc Bataille (Background) - 18September2020.pdf (page 14)

²¹ Accueil - Centre de services à l'emploi Prescott-Russell. <https://www.csepr.ca/> (accessed March 23, 2022)

²² Libre opinion - Cimenterie à Port-Daniel : un sacrifice d'emplois

<https://www.ledevoir.com/opinion/libre-opinion/399295/cimenterie-a-port-daniel-un-sacrifice-d-emplois>

7.5.3 Potential negative impact of the proposed cement plant on tourism

The full details along with references are in Appendix 8.

The local economy relies heavily on agriculture and tourism. The region benefits from 2 million people that visit the area yearly because it is located approximately 75 kilometres away from Montreal and adjacent to Ottawa.

The United Counties of Prescott and Russell's rich and established history of agriculture draws a large number of tourists year round. Specialty food, wine and beer producers, local markets, food festivals and agricultural destination holidays – all are strategically placed to welcome the large population that lives nearby.

The proposed cement plant will be built fronting County Road 17 and it will be less than 2 kilometres from the Ottawa River, a Canadian Heritage River.

County Road 17 is the major link between five of the eight municipalities of the United Counties of Prescott-Russell and it is the main way through which tourists access our area. The Ottawa River is another popular way through which vacationers enjoy our area.

The proposed cement plant will generate an additional 94,076 trips a year of 35 tonne heavy duty diesel transport trucks either coming in or out of Colacem's site. This increase in traffic will happen on County Road 17. This additional traffic has the potential of disturbing tourist and vacationers motoring or bicycling on our road.

A major tourism deterrent will be the odours. Colacem will be emitting **3.7 metric tonnes per day** of sulphur dioxide through its kiln smokestack. Sulphur dioxide has a characteristic and pungent odor which is irritating, and which is associated with pulp and paper mills. These odours could be pervasive in an extensive radius around the cement plant. This could become a major obstacle to the expansion of tourism in our area, let alone to keep regular tourists returning here.

The visual impact of the kiln smokestack, the smokestack plume, the cooling tower, and other structures will give our landscape the look of a heavy industrial zone, either from the road or from the river. This is never associated with a welcoming sight and it will be sufficient to deter many tourists from coming to this area.

The risks to our tourism industry seem to outweigh any benefits.

7.5.4 Potential negative impact of the proposed cement plant on agriculture

In 2016, the economic contribution of agricultural production in Prescott and Russell was \$344 million. **The full details along with references are in Appendix 8.**

Colacem will be emitting a total of 96 pollutants:

- Some of which can directly damage plants and crops or poison livestock

- 15 of which can bio-accumulate in plants, milk, fish, meat and eggs

The least desirable pollutants that can bio-accumulate are dioxins and furans, lead, mercury, and thallium.

These pollutants can and will land anywhere within a huge radius around the cement plant. No one has any control on where they will land once they are emitted by Colacem.

Thereafter, they can enter the food supply chain and eventually end up in our plate. This could be extremely problematic for producers and farmers of this area. It takes years to develop a good reputation and to build consumers trust but, it can disappear very quickly after news of local food or local fish contamination by pollutants like dioxins, lead, or mercury.

Negative publicity could have a detrimental effect to our tourism or agriculture industry for many years to come.

Is it worth the risk to allow such a heavy industry to produce cement here?

7.5.5 Potential job losses

The regional economy relies heavily on its tourism and agricultural industries which employs hundreds, if not thousands of persons. This project has the potential to have devastating effects that will fundamentally undermine the environmental and socioeconomic landscape of our region by jeopardizing hundreds of jobs and by decreasing our area's ability to contribute to Canada's food security.

7.5.6 Potential cost to Ontarian and Canadian taxpayers

The most recent cement plant to be built in Canada was St. Marys Cement Inc. McInnis Plant, (Port-Daniel-Gascons in Gaspésie, QC) which started operations in 2017. A Laval University graduate student wrote a Master's Thesis titled "Une analyse coût-bénéfice de la cimenterie de Port-Daniel-Gascon"²³ and one of his conclusions was:

«L'analyse coût-bénéfice présentée dans ce mémoire montre que la valeur actualisée nette du projet est négative pour la société québécoise même si l'utilisation de la capacité est de 100% pour les prochaines années et que d'autres hypothèses soient respectées.»

This analysis took into account grants and subsidies that the Quebec Government gave to the McInnis cement plant. It did also take into consideration the potential costs to the environment and to the population health. Overall the cost-benefit analysis is negative for Quebec taxpayers.

²³ Christopher Corriveau. 2019. Une analyse coût-bénéfice de la cimenterie de Port-Daniel-Gascon-Mémoire. Maîtrise en économie - avec mémoire. Maître ès arts (M.A.). Université Laval <https://corpus.ulaval.ca/jspui/bitstream/20.500.11794/34037/1/35047.pdf>

The same could be expected for Colacem's proposed cement plant.

Greenhouse gas (GHG) emissions

Ontario has replaced the federal government carbon cost by its Emissions Performance Standards program. However, given that this program is still in transition, the federal government carbon pricing will be used to calculate costs. Even if the carbon cost is replaced by a cap and trade system, the overall costs to the taxpayers and businesses will likely be similar.

Fiscally, Colacem greenhouse gas (GHG) emissions are mostly covered by the federal government regulatory system for large industry, known as the Output-Based Pricing System (OBPS). Under this system, cement plants are specifically eligible to be reimbursed 95% of the greenhouse gas (GHG) costs collected by the federal government. Additionally, it is possible that Colacem will eventually receive some federal government subsidies to help them reduce their greenhouse gas (GHG) emissions.

Consequently, Ontarian taxpayers will have to bear at least 95% of Colacem greenhouse gas (GHG) costs since their emissions will be added to our provincial greenhouse gas ceiling, which will still need to be collectively lowered.

For example, if the proposed cement plant had been operational in 2022, considering that it would have emitted a total of 832,942 tonnes of GHG, Ontarians would have had to pay, collectively, \$ 39,564,745 to offset the additional greenhouse gas (GHG) that would have been emitted and added to the province greenhouse gas ceiling. They would have to pay \$ 51,434,169 in 2023. **The full details along with references are in Appendix 7.**

If Colacem had been using electricity from green sources exclusively to heat the kiln, they still would have emitted 519,480 tonnes of GHG by limestone calcination. In 2022, Ontarians would have had to pay, collectively, \$ 24,675,300 to offset the additional greenhouse gas (GHG) that would have been emitted and added to the province greenhouse gas ceiling. They would have to pay \$ 32,077,890 in 2023. **The full details along with references are in Appendix 7.**

The province of Ontario, the citizens, the companies and industries already established here do not need this additional financial burden.

There is also the cost from a health point of view. Section 7.9 below covers the risks and they seem to far outweigh any benefits that this industry would bring to this area.

7.5.7 Examples of the cost to offset emissions

Using grants in various sectors of our economy and using the average cost of \$ 118 per metric tonne (**Appendix 7, Section 7**), the previous Ontario Climate Change Action Plan would have had to spend an extra \$ 98.3 million (\$98,287,156) in 2017/18 in initiatives grants. This would have

reduced the emissions of greenhouse gas (GHG) equivalent to what the proposed cement plant will emit in one year of operation (832,942 metric tonnes of GHG per year) but spread over all sectors of our economy. Unfortunately, this would have only offset one year of GHG emitted by the cement plant.

The proposed cement plant is expected to be operational for a minimum of 50 years. In this period, this plant will produce over 41,647,100 metric tonnes (41.6 Mt) of greenhouse gas (GHG). Assuming that the average cost of reducing the emission of greenhouse gas (GHG) across all sectors of the economy remains an average of \$ 118 per metric tonne, the cost to offset the additional GHG emissions from this proposed cement plant would be over \$ 4.9 billion for 50 years of operations, which is \$ 98.3 million a year.

The federal government could have to spend \$ 905,370,000 a year to offset the equivalent of Colacem's yearly emissions

Colacem's greenhouse gas (GHG) emissions are equivalent to 181,074 gasoline car emissions a year. If the federal government wanted to offset Colacem's emissions by subsidising the purchase of 181,074 electric cars per year, they would have to spend \$ 905,370,000 a year if they gave a subsidy of \$5,000 per car as they currently offer through their Incentives for Zero-Emission Vehicles Program (iZEV).²⁴ Over 50 years, this amount would total \$ 45.2 billions.

7.6 The Ontario Ministry of the Environment, Conservation and Parks (MECP) did not receive the information that it needed to allow it to make an informed decision in granting an Environmental Compliance Approval (ECA) to Colacem's proposed cement plant project

Colacem Canada Inc. (Colacem) applied and received an Environmental Compliance Approval (ECA) from the Ontario Ministry of the Environment, Conservation and Parks (MECP) to construct a cement plant in L'Orignal which is in the Township of Champlain (Lower Tier municipality) and in the United Counties of Prescott and Russell (Upper Tier municipality) in Ontario.

Several errors of facts, omission of facts and a misrepresentation of fact were uncovered during an appeal against a zoning change to the Local Planning Appeal Tribunal (LPAT).

All of the facts below are fully documented and referenced in Appendix 4.

²⁴ Incentives for purchasing zero-emission vehicles
<https://tc.canada.ca/en/road-transportation/innovative-technologies/zero-emission-vehicles/incentives-purchasing-zero-emission-vehicles>

7.6.1 Errors of facts

- **Smokestack air pollutants emissions were underestimated by 10.23% because US short tons values were used instead of metric tonnes (Appendix 4, Section 3.1)**
- **Two different values of kiln stack normalized flow rate values are used to refer to what is the same volume**
These values are very important because they are used to model the air dispersion of the pollutants using very complex models where any errors will have an impact on the precision and accuracy of the results. **(Appendix 4, Section 3.2)**
- **According to Colacem's documents, once they will be operational, they predict that ambient levels of dioxins and furans will be 80,000 to 220,000 times greater than the maximum allowed in Ontario**
This is probably confusion with some of the mass units. **(Appendix 4, Section 3.3)**
- **The wrong quarry emissions model was used (Appendix 4, Section 3.4)**
- **The wrong quarry emission values were used in the cumulative studies produced by Colacem**
Wrong values from 2016 were used. The federal government's database official value for the 2016 quarry emission was 18 tonnes and Colacem used 16.1 tonnes instead. **(Appendix 4, Section 3.5)**
- **Colacem states that «CO, NO_x, SO₂, and D&F are only emitted from the kiln exhaust stack» which is absolutely erroneous.**
Any machinery, transport trucks, or stationary engine using diesel as fuel will also emit these pollutants. **(Appendix 4, Section 3.6)**

7.6.2 Omission of facts

- **The quarry's expected increase in limestone extraction was not taken into account.** the quarry will have to extract 4 to 5 times more limestone that it is currently extracting to supply the proposed cement plant once it is operational. **(Appendix 4, Section 4.1)**
- **Activities that were not taken into account**
Considering the potential importance of the quarry's activities emissions, the transport trucks emissions, the diesel machinery or equipment emissions, the blasting emissions, it cannot be concluded that the Cumulative Effects Study submitted by Colacem, as stipulated by the MECP, is accurate and credible. **(Appendix 4, Section 4.2)**

7.6.3 Misrepresentation of fact

- **Colacem exaggerated the conservatism of the quarry activities by a factor of 240%** Colacem modelled emissions based on the quarry operating 10 hours a day instead of the 24 hours a day that they repeatedly affirmed in their texts. **(Appendix 4, Section 5)**

The cumulative emissions will be significantly above all of the levels that Colacem has reported.

There are sufficient errors of facts, omission of facts, and proof of misrepresentation of facts to invalidate the Cumulative Effects Study (CES) that Colacem submitted to the Ontario Ministry of the Environment, Conservation and Parks (MECP).

Basically, the conclusions of both air quality expert witness (opposed parties) is that the Ontario Ministry of the Environment, Conservation and Parks (MECP) did not receive the information that it needed to allow it to make an informed decision concerning the adverse effects of the proposed cement plant projected cumulative emissions with that of the emissions from the quarry. **(Appendix 4, Section 6)**

7.6.4 Air quality limits will likely be exceeded every day

Colacem conducted some simulations where they said that they assumed that the most intensive activities on the proposed cement plant would occur every day. They stated “Project emissions are assumed to operate for 24 hours, 7 days a week and 365 days per year in reality they will be operating much less during normal operations.”²⁵

This statement has been totally disproven **(see Appendix 4, Section 5)**.

The erroneous values from Colacem are presented in Figure 8 below.

In Figure 8, the cumulative suspended particulate matter, and PM₁₀ exceed the Ambient Air Quality Criteria by 154% and 108% respectively. PM_{2.5} (24-hr) and NO_x (1-hr) are 23% and 33% from that limit.

Colacem state “The on-site road emissions are the largest contributor to the maximum predicted concentration of SPM as shown” on page 623.

These road emissions are only from the paved roads on the site of the proposed cement plant. Unpaved roads in the quarry were not included in any scenario although they are an enormous source of particulate matter (Appendix 4, Section 4.1 and 4.2).

²⁵ Colacem - Witness Statement - Sean Capstick (Air) 18Sep2020.pdf (Page 622).

Table 1: Highest Predicted Concentration for the Maximum Scenario

Compound	Averaging Period	AAQC Criteria [$\mu\text{g}/\text{m}^3$]	Background Concentration [$\mu\text{g}/\text{m}^3$]	Project + Existing Facilities Concentration [$\mu\text{g}/\text{m}^3$]	Total Cumulative Concentration [$\mu\text{g}/\text{m}^3$]	Percent of Criteria [%]
SPM	24-hr	120	45.7	139.1	184.8	>100%
PM ₁₀	24-hr	50	22.86	31.6	54.5	>100%
PM _{2.5}	24-hr	27	11.43	9.4	20.9	77%
NO _x	1-hr	400	26.3	240.6	266.9	67%
	24-hr	200	23.0	50.1	73.1	37%
SO ₂	1-hr	183	2.6	38.7	41.3	23%
	24-hr	150	3.9	7.9	11.8	8%
CO	1-hr	36,200	343.6	80.2	423.8	1%
	8-hr	15,700	343.6	17.2	360.7	2%
D&F	24-hr	0.1 [pg/m^3]	—	0.008	0.008	8%

Figure 8. Highest Predicted Concentration for the Maximum Emissions Scenario. Screen capture of Page 623.²⁵

SPM is Suspended Particulate Matter (it includes PM₁₀ and PM_{2.5})
 PM₁₀ Particulate Matter ≤ 10 microns (it includes PM_{2.5}) PM_{2.5} is Particulate Matter ≤ 2.5 microns
 NO_x is Nitrogen Oxides SO₂ is Sulfur Dioxide
 CO is Carbon Monoxide D&F is Dioxins and Furans

Several omissions and errors of facts were exposed above (in Appendix 4). These will also increase the values shown in Figure 8 above because:

- The quarry’s extraction will be 4 to 5 times more than the mass extracted when the reports were made
- There will be 94,076 trips a year of 35 tonne heavy duty diesel transport trucks in and out of the proposed cement plant site (unsure if all of these are accounted for in the models)
- There will be 40,822 trips a year of 65 tonne extra heavy duty diesel transport trucks bringing limestone from the quarry to the cement plant site and returning to the quarry (unsure if any of these are accounted for in the models since they mostly circulate on unpaved roads).
- Colacem states that «CO, NO_x, SO₂, and D&F are only emitted from the kiln exhaust stack» which is absolutely erroneous. Consequently any machinery, transport trucks, or stationary engine using diesel as fuel will also emit these pollutants as tailpipe exhaust emissions. These have not been accounted for in the model used by Colacem.
- The blasting emissions were discarded but there could be between 36 and 48 blasting per year once the cement plant is operational instead of 12 as in the past. Blasting does emit

particulate matter and CO, NO_x, and SO₂. These have not been accounted for in the model used by Colacem.

In their discussion, Colacem states that “the maximum emissions scenario possible will only be occurring for approximately 100 days out of a possible 1,530 days”.²⁶

This is one day every 15 days.

If these omissions listed above were to be included in the modelled scenario, it is extremely likely that all the particulate matter categories will exceed the Ambient Air Quality Criteria (SPM, PM₁₀ and PM_{2.5}), **possibly daily instead of one day out of every 15 days.**

Also, if the emissions from the 134,898 truck trips (includes return) were all accounted for in the cumulative emissions, the limits of the Ambient Air Quality Criteria for SPM, PM₁₀ and PM_{2.5}, CO, NO_x, SO₂, and D&F might be exceeded or at least will be increased by the tailpipe exhaust emissions, and their particulate matter emissions.

7.6.5 The Ontario Minister of the MECP refuses to reconsider its ruling despite the errors and will not ask for new studies based on accurate facts, on science and on evidence.

Considering the errors of facts, the omissions of facts and misrepresentation of fact, numerous groups and citizens believe that the Ontario Ministry of the Environment, Conservation and Parks (MECP) did not receive the information that it needed to allow it to make an informed decision concerning the adverse effects of the proposed cement plant projected cumulative emissions, especially with the emissions from the quarry.

Consequently, numerous letters were sent to the Ontario Minister of the Ministry of Environment, Conservation and Parks (MECP) asking that Colacem’s Environmental Compliance Approval (ECA) be revoked. Most also asked that a new ECA application with trustworthy and accurate facts be requested from Colacem.

In 2021, the local Member of Parliament (MP), Francis Drouin, Glengarry-Prescott-Russell , and the Member of Provincial Parliament (MPP), Amanda Simard, Glengarry-Prescott-Russell, asked the Ontario Minister of the Ministry of Environment, Conservation and Parks to revoke Colacem’s Environmental Compliance Approval (ECA) and they indicated the need for a new application (**see Appendix 5 for a copy of their letter and the Minister’s response**).

The Champlain Township (lower-tier municipality) asked for a very similar action from the Ontario Minister of the Ministry of Environment, Conservation and Parks application (**see Appendix 5 for a copy of their letter and the Minister’s response**).

²⁶ Colacem - Witness Statement - Sean Capstick (Air) 18Sep2020.pdf (Page 623).

For both case and all citizen's letters, Minister Piccini declined to revoke the Environmental Compliance Approval (ECA) that has been granted to Colacem and will not ask Colacem to apply for a new ECA with accurate facts, based on science and on evidence.

Here is an extract of one of Minister Piccini response (**Appendix 5**):

«The ECA application the ministry received in June 2016 was approved in October 2019 following a thorough technical review of the proposal, which included all technical reports submitted with the application and supporting information including the combined impact of the cement plant and the adjacent quarry operation. The ECA was issued after the ministry confirmed that the proposal followed ministry procedures to show compliance with all applicable requirements, including air discharge requirements in Ontario Regulation 419/05: Air Pollution – Local Air Quality.»

The question is, if the technical review has been so thorough, how is it possible that none of these errors, omissions and misrepresentation were noticed by the ministry in the three years that were reviewing this project (2016-2019)?

Therefore, the Ontario Ministry of the Environment, Conservation and Parks seems to be unwilling to impose their own rules and regulations despite proof that there were significant irregularities in Colacem's application.

7.7 The cumulative effects of physical activities in the region

In our opinion, there are sufficient errors of facts, omission of facts, and proof of misrepresentation of facts to invalidate the Cumulative Effects Study (CES) that Colacem submitted to the Ontario Ministry of the Environment, Conservation and Parks (MECP).

The Ontario Ministry of the Environment, Conservation and Parks asked Colacem to supply an Air Quality Cumulative Effects Study including emissions from:

On Colacem's property in L'Orignal:

- Colacem's proposed cement plant
- Colacem's quarry
- Colacem's asphalt plant
- Colacem's lime plant

From outside Colacem's property in L'Orignal

- Ivaco Rolling Mills facility located 4 kilometres east
- Background air quality

- In August 2022, a new concrete plant is currently being advertised on Colacem’s web site stating that it is on their property in L’Original. **Its emissions should definitely be included in current and future Air Quality Cumulative Effects Study.**²⁷

Several errors of facts, omission of facts and a misrepresentation of fact were uncovered during an appeal against a zoning change to the Local Planning Appeal Tribunal (LPAT) (**Section 7.6 above**).

Mr. Sulley, who is the air quality expert witness for the Party appealing the zoning change, Action Champlain, is quoted by the Tribunal Member in his Decision:²⁸

[48] Mr. Sulley summarized his concerns about the approach taken by Colacem and Golder by stating that “the problem is that we don’t actually have an assessment that says what [plant operations will be like]”.

[49] According to Mr. Sulley, differences in the data inputted into the model used by Mr. Capstick causes concern that the CES underpredicts potential impacts.

[207] Despite these concessions, Mr. Sulley took issue with the Air **CES** on the basis that it: (i) contained certain minor errors; (ii) was completed using publicly available **NPRI** data for the Colacem quarry, rather than the actual measurement of emissions sources at the quarry through the preparation of a **joint ESDM**; and (iii) the fact that the Air CES did not fully account for the increased extraction of limestone at the quarry to be used by the Plant once it is operational.

[208] Mr. Sulley summarized his concerns by saying that the Plant has not been “assessed as it will operate”. In short, Mr. Sulley worries that the inputs and assumptions used in generating the modelling were imperfect.

- **CES** stands for Cumulative Effects Study
- **NPRI** stands for National Pollutant Release Inventory. Under the authority of the Canadian Environmental Protection Act (CEPA), owners or operators of facilities that meet published reporting requirements are required to report to the NPRI. <https://www.canada.ca/en/environment-climate-change/services/national-pollutant-release-inventory/report.html>
- **Joint ESDM** stands for the Emission Summary and Dispersion Modelling Report of the proposed cement plant and of the quarry.

²⁷ Colacem Canada Services (in French only) <http://www.colacem.ca/services.html> (accessed August 7, 2022)

²⁸ Decision delivered by N.P. Robinson and order of the tribunal. Local Planning Appeal Tribunal - Tribunal d’appel de l’aménagement local. Issue Date: April 12, 2021. Case No(s):PL170756 <https://olt.gov.on.ca/tribunals/lpat/e-decisions/> and search for PL170756

Mr. Capstick’s testimony, the air quality expert witness for Colacem, also concurs with the statements above. He is quoted by the Tribunal Member in his Decision:²⁹

[33] Mr. Capstick also testified that the reports were originally prepared with several objectives but with the primary objective of obtaining an ECA. Mr. Capstick conceded, however, that the Tribunal would be in a better position to assess adverse effects if additional data from the quarry had been considered.

In paragraph [33] above, “Mr. Capstick conceded, however, that the Tribunal would be in a better position to assess adverse effects if additional data from the quarry had been considered.” **This is also true for the Ontario Ministry of the Environment, Conservation and Parks Cumulative Effects Study request, which was consequently not conducted in a thorough manner and not as comprehensively as could be expected.**

Basically, the conclusions of both air quality expert witness is that the Ontario Ministry of the Environment, Conservation and Parks (MECP) did not receive the information that it needed to allow it to make an informed decision concerning the proposed cement plant projected cumulative emissions with the emissions from the quarry.

7.8 The potential adverse effects cannot be adequately managed through other existing legislative or regulatory mechanisms

The Ontario Ministry of the Environment, Conservation and Parks (MECP) absolutely refuses to reconsider Colacem’s flawed application for an Environmental Compliance Approval (Section 7.4.5 above). This despite all the proofs and even despite the admission by Colacem’s own air quality expert witness that the cumulative effects study was incomplete (**Section 7.7 above**).

Here is what was reported by the Member of the Local Planning Appeal Tribunal in his Decision:³⁰

[33] Mr. Capstick also testified that the reports were originally prepared with several objectives but with the primary objective of obtaining an ECA. Mr. Capstick conceded, however, that the Tribunal would be in a better position to assess adverse effects if additional data from the quarry had been considered.

[38] In his updated Cumulative Effects Study (“CES”) of November 2018, Mr. Capstick used quarry emissions data from 2016 for the Suspended Particulate Matter (“SPM”) emission rate with a value of 16.13 tonnes per year. Under cross-examination, Mr.

²⁹ Decision delivered by N.P. Robinson and order of the tribunal. Local Planning Appeal Tribunal - Tribunal d’appel de l’aménagement local. Issue Date: April 12, 2021. Case No(s): PL170756 <https://olt.gov.on.ca/tribunals/lpat/e-decisions/> and search for PL170756

³⁰ Decision delivered by N.P. Robinson and order of the tribunal. Local Planning Appeal Tribunal - Tribunal d’appel de l’aménagement local. Issue Date: April 12, 2021. Case No(s): PL170756 <https://olt.gov.on.ca/tribunals/lpat/e-decisions/> and search for PL170756

Capstick acknowledged that the data point for 2016 is 18 tonnes per year and confirmed that he had been made aware of the 2017 emissions data before September 2018 when the hearing was originally scheduled. Mr. Capstick stated that he had learned of the new data through Mr. Sulley's 2018 Reply statement.

[45] Mr. Capstick's correction under oath implies that he may have misstated the conservativeness of his model to the MECP which granted the ECA.

Mr. Capstick is Colacem's air quality expert witness

ECA stands for Environmental Compliance Approval.

This demonstrates that the Ontario Minister of the Ministry of Environment, Conservation and Parks will not adequately monitor and manage potential adverse conditions or enforce its own rules and regulations.

THIS IS WHY THE FEDERAL MINISTER OF ENVIRONMENT AND CLIMATE CHANGE NEEDS TO DESIGNATE THE PROPOSED PROJECT UNDER THE IMPACT ASSESSMENT ACT 2019 (IAA) SO THAT THE POTENTIAL ADVERSE EFFECTS OF THIS PROJECT MAY BE PROPERLY ASSESSED.

7.9 Human health risks caused by the operation of the proposed cement plant

Dr. Ray Copes, Public Health Ontario's Chief of Environmental and Occupational Health, was interviewed in 2016 by a local newspaper. He said he cannot say a cement plant in L'Orignal would create absolutely no risk to health, because in his opinion any level of air pollution is a problem.

Overall, the proposed cement plant will be emitting 72 different pollutants through its kiln smokestack. Of these, 62 have a CAS number³¹:

- 39% of these 62 pollutants are known to be carcinogenic or probably or possibly carcinogenic to humans
- 29% are classified as toxic to humans or as being poisons

The full details of the risks are presented in Appendix 3.

³¹ CAS Registry Number is a unique numerical identifier assigned by Chemical Abstracts Service to every chemical substance described in the open scientific literature

Table 5. Summary of the potential effect on health from some of the inorganic and organic pollutants that will be emitted by the kiln smokestack of the proposed cement plant (see Appendix 3 for full details and references).

Risks ^A	Organic pollutant	Inorganic pollutant	Combined
	Number		Total
Total number of pollutants with a CAS number ²³	36	26	62
Corrosive	1	7	8
Poison	5	10	15
Toxic to humans	3		3
Carcinogenic to humans	3	3	6
Probable human carcinogen	9	1	10
Possibly carcinogenic to humans	3	1	4

^A A compound can have more than one risk associated with it. The full details of the risks are presented in Appendix 3.

7.9.1 Pollution from the kiln smokestack of the proposed cement plant:

The proposed cement plant kiln smokestack will be emitting approximately 20 metric tonnes of pollutants a day (6,660 tonnes a year). It will be the major polluter for this area.

Overall, they will be emitting more than 72 different pollutants:

The proposed cement plant will be emitting 15 different Volatile Organic Compound (VOC). Some VOCs are dangerous to human health or cause harm to the environment.

The plant will be emitting 15 different Polycyclic Aromatic Hydrocarbon (PAH) compounds. Cancer is a primary human health risk of exposure to PAH. Exposure to PAHs has also been linked with cardiovascular disease and poor foetal development.

The plant will also be emitting 2 different phthalates. One is considered as a Probable Human Carcinogen the other is a suspected endocrine disruptor in animals.

7.9.2 Dioxins and furans are another major pollutant that will be emitted by the proposed project.

It is worrisome that, had the proposed cement plant operated in 2017, it would have been the **biggest** emitter of dioxins and furans of all the 16 other cement plants in Canada.

It would have:

- emitted 13 % of all the stack emitted dioxins and furans from all industries in Ontario

- been the 4th largest stack emitter of dioxins and furans in all of Ontario
- ranked 9th for all of Canada out of 123 dioxins stack emitters

In relation to the other cement plants in Canada:

- Colacem would have been the **biggest** emitter of dioxins and furans compared with all the other cement plants in Canada, both in 2016 or 2017, if it had been operational in those years.
- In 2017, it would have emitted more than twice the total of all other cement plants together.

Dioxins and furans are some of the most toxic industrial chemicals known to science.

The threats posed by dioxins became widely known because of Agent Orange, an herbicide and defoliant used in the Vietnam War. They were also contaminants of transformers' oil (PCB) last century.

Dioxins:

- are highly toxic
- can cause reproductive and developmental problems
- damage the immune system
- interfere with hormones
- cause cancer.
- persist in the environment for decades
- contaminate the food supply chain.

Why should we be concerned about dioxins and furans?

Dioxins are considered to have significant toxicity and can cause diseases.

Dioxins and furans are some of the most toxic industrial chemicals known to science. They include TCDD and certain PCBs. The threats posed by dioxins became widely known because of Agent Orange, an herbicide and defoliant used in the Vietnam War. They were also contaminants of transformer's oil (PCB) last century.

- Dioxins are a group of chemically-related compounds that are **extremely persistent** environmental pollutants
- Dioxins accumulate in the food chain
- Dioxins are highly toxic and can cause reproductive and developmental problems, damage the immune system, interfere with hormones and can cause cancer

7.9.3 Fifteen of the pollutants are persistent and accumulate in our food chain.

Some of the pollutants could persist in our environment for some time and eventually accumulate over the years to reach levels that could be dangerous and unsafe in our soils and waterways.

Unfortunately, there could also be a more insidious way through which these pollutants could harm the environment and our food. It could be by contaminating the food chain.

There are 15 pollutants that will be emitted by Colacem that can be bio-accumulated and that are toxic or carcinogenic. They have the potential to be bio-accumulated in plants, milk, fish, native birds, migratory birds, meat and eggs. **The full list along with their toxicity is presented in Appendix 3, Section 3.6.**

Thereafter, they could eventually end up in our plate.

Table 6. Pollutants that will be emitted by the proposed cement plant that are known to be dangerous and that bio-accumulate in plant, fish, meat, and the environment.

Organic pollutants	Inorganic pollutants
Benzo(a)anthracene	Barium
Benzo(a)pyrene	Lead
Benzo(k)fluoranthene	Mercury
Biphenyl	Selenium
Bis(2-ethylhexyl) phthalate	Thallium
Chrysene	
Dibenz(a,h)anthracene	
Dioxins and Furans (TEQ)	
Indeno(1,2,3-cd)pyrene	
Pyrene	

7.9.4 Public Health Ontario's Chief of Environmental and Occupational Health comments that he cannot say a cement plant in L'Orignal would create absolutely no risk to health

Dr. Ray Copes, Public Health Ontario's Chief of Environmental and Occupational Health, was interviewed in 2016 by a local newspaper (The Review in Vankleek Hill) concerning the health risks that the proposed cement plant represented to the population.³² He held the post of Chief of Environmental and Occupational Health until 2020.

³² No proven link between cancer and cement plants, but air pollution creates risk
<https://thereview.ca/2016/10/24/no-proven-link-between-cancer-and-cement-plants-but-air-pollution-creates-risk-pho>

Here is a short excerpt of the interview:

«Copes said he cannot say a cement plant in L'Original would create absolutely no risk to health, because in his opinion any level of air pollution is a problem: "Right now, air pollution in Ontario overall is associated with, in my opinion, significant risk to health, and I'm not aware of any level of air pollution that we could point to and say this is a level of air pollution without any risk whatsoever," he said. The status quo, he said, represents a "fairly significant public health problem, and we want to make sure air quality gets better, not worse, in the future."»

Dr Copes also said:

«However, it's not the same story for air pollution itself – air pollution "very clearly is carcinogenic," he said.»³²

7.10 Environmental risks caused by the operation of the proposed cement plant

7.10.1 Environmental risks of the pollutant emissions

Colacem's project will be discharging 96 different pollutants in our environment either through kiln smokestack emissions or through fugitive emissions from raw materials or by both.

Overall, of the 62 different pollutants that are emitted through the kiln smokestack and that are problematic:

- 29% are known to be carcinogenic or possibly carcinogenic to animals
- 34% are classified as toxic or very toxic to aquatic organisms
- 22% may be hazardous to the environment or it is strongly advised that this substance does not enter the environment
- 24% accumulate in plants or animals

More specifically (**See Appendix 3 and 6 for details**):

- The proposed cement plant will be emitting 7.05 metric tonnes a day of nitrogen oxides. Nitrogen oxides, when not converted to nitric acid, can act as a nitrogen fertilizer in the environment. This can cause eutrophication of waterways. On terrestrial ecosystems, it can promote the growth of some plant species to the detriment of other species, breaking an equilibrium that might have taken centuries or more to reach.
- In addition, nitrogen oxides (NO_x, 7.05 tonnes a day) combined with sulfur oxides (SO_x, 3.67 tonnes a day) will be having a combined mass of 10.72 metric tonnes a day of pollutants that can produce acid rain,
- 15 different volatile organic compound (VOC) will be emitted by the proposed cement plant. Some of which are dangerous to human health or cause harm to the environment

- 15 different polycyclic aromatic hydrocarbon (PAH) will be emitted by the proposed cement plant. Cancer is a primary human health risk of exposure to PAHs and it has been linked to cardiovascular disease and poor foetal development
- The proposed cement plant will be emitting 2 different phthalates. One of these is considered as a Probable Human Carcinogen and there is sufficient evidence of carcinogenicity in animals. It is also considered as an endocrine disruptor. The other phthalate is a suspected endocrine disruptor in animals.
- There are 15 pollutants that will be emitted by Colacem that can be bio-accumulated and that are toxic or carcinogenic. They have the potential to be bio-accumulated in plants, milk, fish, meat and eggs and can contaminate our food-chain. They can also contaminate the fish caught in the Ottawa River.
- Ground level Ozone is the result of photochemical reactions between NO_x and volatile organic compounds (VOCs), both of which will be emitted from the Colacem proposed cement plant. Ozone can affect sensitive vegetation and ecosystems, including forests, parks, wildlife refuges and wilderness areas. In particular, ozone can harm sensitive vegetation during the growing season.

7.10.2 Colacem's field inventory/survey was very limited

Colacem's field inventory/survey was limited to only 26% of Colacem's property. Furthermore, the surveys were only done in a single year, 2015, and the site was only visited at 6 different times in that year.

Considering the scale of the proposed cement plant project, there should have been more surveys done, ideally several times within each season of the year, and for several years to truly characterize and identify all the wildlife present. Also it should have been done on the entire property, including the **significant woodlands and the wetlands on Colacem's site** itself, and the ones adjacent to the property to truly determine what fauna and flora are present. **See Appendix 6, Section 4 and 5 for full details and references.**

The person that did Colacem's field inventory/survey mentioned that some endangered, threatened and special concern species might be in the "**significant woodland**" present either on the quarry side of the property, on the proposed cement plant site, or on properties adjacent. The same could probably be said for the **wetlands** on Colacem's property or adjacent to the property.

7.10.3 Ecosystems of particular concern:

See Appendix 6 for full details and references.

7.10.3.1 Area's ecosystems

- the Ottawa River which is less than 2 km North where thousands of migratory birds are observed in the spring and in the fall,

- the Alfred Bog (the most significant peatlands in all of Eastern Ontario), managed by Ontario Parks as a Provincial Nature Reserve, 9 km away West,
- Atocas Bay Conservation Project managed by Ducks Unlimited (wetlands, 8 km away West),
- Pumpkinseed Bay, located in Quebec (bird staging location with over 200 different bird species recorded, 7 km away East)

These sites are all important ecosystems that support an abundance of plant life, animals, fish, native birds and migratory birds. Millions of dollars have been invested by governments and private groups in preserving and restoring ecosystems in this area. The proposed cement plant emissions constitute an important threat to these sites.

7.10.3.2 Colacem's property ecosystems

There are **significant woodlands and wetlands** both on Colacem's property and adjacent to the property. These were not included in the field inventory/survey arranged by Colacem. Some sections of these will be directly destroyed by the quarry expansion. **There could be several species that are endangered, threatened and of special concern in these significant woodlands and wetlands. (See Appendix 6 Section 4)**

7.10.4 There are 14 federally-listed endangered, threatened and special concern species on the site or in the area

There are 14 federally-listed endangered, threatened and special concern species on the site or in the area. Three are listed as Endangered, six as Threatened, and five as Special Concern and have been observed either on Colacem's property or in the area. A 15th species is under consideration for addition by the federal government and it is currently listed as endangered by the Ontario government. See Table 7 below for a list of the species and for details on their status. **See Appendix 6, Section 5 for full details and references.**

Table 7. Summary compilation of the status of **federally-listed endangered, threatened and special concern species** observed on the site of the proposed cement plant or in areas close to the site.

Species	SARA ^A	ESA ^B	Location
Monarch	Special Concern ^C	Special Concern	Observed by Colacem on site
Barn Swallow	Threatened ^D	Threatened	Observed by Colacem on site
Bobolink	Threatened	Threatened	Observed at Atocas Bay ^E
Eastern Meadowlark	Threatened	Threatened	Observed at Atocas Bay
Short-eared Owl	Special Concern ^C	Special Concern	Observed at Atocas Bay
Least Bittern	Threatened	Threatened	Observed at Atocas Bay
Western chorus frog Great Lakes St. Lawrence / Canadian Shield population	Threatened	Not listed	Observed in the area
Midland Painted Turtle	Special Concern	Not listed	Observed in the area
Snapping Turtle	Special Concern	Special Concern	Observed in the area
Spiny Softshell	Endangered	Endangered	Possibly extirpated from the area
Spotted Turtle	Endangered	Endangered	Observed in the area
Grasshopper sparrow	Special Concern	Special Concern	Observed in the area
Chimney swift	Threatened	Threatened	Observed in the area
Black Ash	Under consideration for addition ^C	Endangered	Possibly on site, is in the area
Butternut	Endangered	Endangered	Possibly on site, is in the area

- ^A Canadian government Species at Risk Act.
- ^B Ontario. Endangered Species Act (ESA), 2022. Ontario Regulation 230/08: Species at risk in Ontario list
- ^C Eventually will change to Threatened
- ^D Eventually will change to Special Concern
- ^E Atocas Bay stands for “Atocas Bay Conservation Project wetland”, 8 km away. Managed by Ducks Unlimited

7.10.5 Fish habitats will be destroyed by the project and by the quarry expansion

The Drain Charlebois transects the site of the proposed cement plant project and the site of the future quarry expansion. There are also numerous drainage channels, some of which are intermittent. Fish have been observed in most of these.³³

See Appendix 6, Section 4 for an outline of the drainage channels and of the Drain Charlebois.

³³ Colacem - Witness Statement - Heather Melcher (Wildlife and Natural Environment) 18Sep2020.PDF

Colacem submitted a Request for Review to Fisheries and Oceans Canada (DFO) on June 20, 2016 concerning the fish habitat destruction, but only on the cement plant site.

Fisheries and Oceans Canada (DFO) replied to this request in a letter dated September 20, 2017.

The DFO letter clearly stated that:

« Based on the above information the Program has concluded that your proposal is likely to result in:
serious harm to fish due to the destruction of fish habitat through infilling of approximately 4561m² of drain channel, which is prohibited under subsection 35(1) of the Fisheries Act.

In order to be in compliance with the above legislation you must apply for and obtain an authorization from the Program pursuant to paragraph 35(2)(b) of the Fisheries Act. »

Since that letter was received (dated September 20, 2017):

- As of September 18, 2020, no application for DFO Fisheries Act Authorization had been submitted (page 7, Item 15).³⁴
- The proposed cement plant site has been moved North 50 metres closer to the Drain Charlebois (**Appendix 10 Section 2**), seemingly covering or infilling the Drain Charlebois, but this remains to be confirmed (Page 80)³⁵

Furthermore, emphasising the opinion that the quarry activities should be considered with the proposed cement plant project when conducting an impact assessment, the Drain Charlebois, along with several types of drain channel, will be completely destroyed when the quarry expands (**Appendix 10 Section 3**) (page 257).³⁶ This is further supported by the fact that, since the LPAT hearings, Colacem officially merged the quarry and the proposed cement plant lots, further supporting the view that both should have been part of the Environmental Compliance Approval (ECA).

See Appendix 10 for details along with references and a copy of the DFO letter.

7.10.6 Risks of potential overflow, overspill, discharge, and runoff of contaminated water

Extreme weather events are becoming more frequent with climate change. The risks of potential overflow, overspill, discharge, and runoff of contaminated water from the proposed cement plant site directly in the drain Charlebois and then in the Ottawa River are extremely high. There does not seem to be any contingency measures in place to prevent damage to the environment.

See Appendix 6 Section 7 for the full details along with references.

³⁴ Ibid

³⁵ Colacem - Witness Statement - James Parkin (Planning) - 18September2020.PDF

³⁶ Colacem - Witness Statement - Joe Tomaselli (Noise) 18Sept2020.PDF

7.11 This project will hinder the Government of Canada's ability to meet its climate change commitments

- The proposed cement plant will be emitting 832,942 metric tonnes of greenhouse gas (GHG) per year from its kiln operation alone
- The plant will be operational for a minimum of 50 years or more
- The plant will emit over 41.6 Mt of greenhouse gas (GHG) during the first 50 years
- Yearly, the GHG emissions equivalent to 181,074 gasoline car emissions each and every year for the next 50+ years
- Over 50 years, these emissions are equivalent to 9,053,700 extra 2020 typical gasoline car emissions

This represents a major setback for any governmental greenhouse gas (GHG) reduction programme. (see Appendix 7)

Colacem will only pay a fraction of the greenhouse gas (GHG) emission costs, if any, because of Ontario's Emissions Performance Standards program or Canada's Output-Based Pricing System.

Consequently, Ontarian taxpayers will have to bear most of Colacem greenhouse gas (GHG) costs since their emissions will be added to Ontario's provincial greenhouse gas burden that must be collectively lowered.

- Colacem will not be paying their fair share of Ontario greenhouse gas (GHG) costs burden
- in 2022, Ontarians would have had to pay, collectively, approximately \$ 40,000,000 to offset Colacem's GHG emissions (or \$25 million if using green energy)
- In 2023, Ontarians would have to pay \$ 51,000,000 (or \$32 million if exclusively using green energy)
- In 2024, Ontarians would have to pay \$ 63,000,000 (or \$39 million if exclusively using green energy)
- Canadians or Ontarians would have to contribute more money if Colacem was to receive grants and other subsidies from either level of government to increase energy efficiency or for energy conversion or other programme.

The federal government would have to spend \$ 905,370,000 a year to offset the equivalent of Colacem's yearly emissions.

Colacem's greenhouse gas (GHG) emissions are equivalent to 181,074 gasoline car emissions a year. If the federal government wanted to offset Colacem's emissions by subsidising the purchase of 181,074 electric cars, they would have to spend \$ 905,370,000 a year if they gave a subsidy of \$5,000 per car as they currently offer through their Incentives for Zero-Emission Vehicles Program (iZEV).³⁷ **See Appendix 7, Section 8 for details.**

³⁷ Incentives for purchasing zero-emission vehicles
<https://tc.canada.ca/en/road-transportation/innovative-technologies/zero-emission-vehicles/incentives-purchasing-zero-emission-vehicles>

The province of Ontario, the citizens, the companies and industries already established here do not deserve this additional financial burden.

Even if Colacem used only green energy or non-fossil energy, it would still be emitting 519,480 metric tonnes a year of greenhouse gas (GHG) because these emissions would come from the limestone calcination, regardless of the source of energy. This represents a total of 26 Mt of GHG for the first 50 years that the plant will be operational. (see Appendix 7 Section 6)

7.12 This Ontario project will have transboundary impact in the province of Quebec.

The proposed cement plant is less than 2 kilometre from the Ottawa River, a Canadian Heritage River. This river is the border between Ontario and Quebec from Ottawa and Chute-à-Blondeau.

Pollution from the kiln smokestack has the potential to pollute the atmosphere and the Ottawa River. There are also great risks of potential overflow, overspill, discharge, and runoff of contaminated water from the cement plant site and from the quarry to the Ottawa River through the Drain Charlebois which transects both sites. (see Appendix 6)

7.12.1 Kiln emissions

The kiln smokestack of the proposed cement plant will be emitting approximately **20 metric tonnes of 72 different pollutants per day**. It is located less than 2 km from the river and it is extremely likely that many of those will fall in the river or further away in the province of Quebec.

There are 15 pollutants that will be emitted by Colacem that can be bio-accumulated and that are toxic or carcinogenic. They have the potential to be bio-accumulated in plants, milk, fish, meat and eggs (**Appendix 3, Section 3.6**). Thereafter, they could eventually enter the food chain of Quebecers.

7.12.2 Risks of potential overflow, overspill, discharge, and runoff of contaminated water into the Ottawa River

The Drain Charlebois transects the proposed cement plant site and the quarry site and runs directly into the Ottawa River. The quarry and the storm water basin pump water directly into the Drain Charlebois. (See Appendix 6 Section 7)

Extreme weather events are becoming more frequent with climate change. The risks of potential overflow, overspill, discharge, and runoff of contaminated water from the proposed cement plant site directly in the drain Charlebois and then in the Ottawa River are extremely high. There does not seem to be any contingency measures in place to prevent damage to the environment.

It is of concern that the proposed cement plant facility has not put sufficient measures in place to handle weather extremes and that their basin systems could be overwhelmed and that contaminated water might overflow and runoff from their site. Their water storage and catchment systems might not have the capacity to contain extreme and unexpected volume of precipitations. Furthermore, there is also a high risk of runoff from the overall site in the case of extreme precipitations, bypassing basins and catchment structures.

There is also a high risk of extreme water runoff after a heavy rain in the quarry. This runoff water, if contaminated, could be accidentally pumped into the drain Charlebois and consequently in the Ottawa River because the quarry has a permit to pump water with a maximum volume of 6,336,000 litres per day which represents 2,312,640,000 litres per year into the drain Charlebois.³⁸

There will be 96 different pollutants on site deposited either from kiln or from fugitive emissions or from both that could be carried away by extreme precipitation. Petroleum coke is stored outdoors, at the edge of the quarry, and contains 19 different contaminants.

The risks of potential overflow, overspill, discharge, and runoff of contaminated water from the proposed cement plant site directly in the drain Charlebois which drains directly into the Ottawa River are extremely high. **(See Appendix 6 Section 7)**

The Ottawa River is used by Quebec and Ontario residents and visitors and any contamination might end up both on Ontarians or Quebecers' plate. Also, several municipalities downstream of the proposed cement plant use the Ottawa River as their source of drinking water.

7.13 The impact that the project may have on any Indigenous group

The Mohawks of Kanésatake, a community on the shore of the Lake of Two Mountains in southwestern Quebec, are the First Nation most likely to be exposed:

- To contamination of their atmosphere from the kiln smokestack emissions
- To contamination of fish and migratory birds which form part of their traditional diet by pollutants in the Ottawa River

There has not been any apparent or meaningful consultations with potentially impacted First Nations living downstream from the proposed cement plant project by Colacem or by any level of government to understand how this project may adversely impact their aboriginal or treaty rights.

7.14 The extent that the project contributes to sustainability

The proposed cement plant, through its kiln smokestack alone, will be emitting 20 tonnes of 72 different pollutants per day, 6,660 tonnes per year and 333,000 tonnes for the first 50 years of the project. From a sustainability point of view, it is rather the opposite that will be happening.

³⁸ Colacem Canada Inc. - Permit to take water No. 0636-BBCJ6M
<https://ero.ontario.ca/notice/013-4547>

These mass of pollutants do not simply disappear forever. They will cumulate in the environment, possibly until they reach thresholds beyond which they can cause adverse effects.

As discussed in Section 7.5 above, this cement plant is not essential and not needed to support our Canadian infrastructures and construction industries.

Furthermore, this project will:

- Impair Canada's ability to meet its international climate change commitments
- Increase taxpayers carbon costs which they ultimately will have to bear
- Impact the agricultural land in the surrounding area, its productivity and sustainability
- Impact food security by potentially contaminating various sources of food (wild and domestic)
- Impact municipalities water security that rely on the Ottawa River
- Compromise local and regional economic well-being into the future
- Harm the tourism industries

7.15 This project was rejected by 93% of the community

There is no social acceptability by the community for this project. When the public was consulted by either the lower-tier municipality (Champlain Township) or the upper-tier municipality (United Counties of Prescott and Russell), there was a 93 % rejection of the project when written opinions were counted.

8.0 Proponent's contact information:

COLACEM Canada Inc.
56 rue Longueuil, L'Orignal, Ontario, K0B 1K0
Contacts
T. (613) 675-4614 x 605
abernard@colacem.ca

9.0 Group making this request

Action Champlain
1870 chemin de la Baie
L'Orignal ON K0B 1K0
Email: actionchamplain.communications@gmail.com

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Appendix 1

Facts and figures concerning the proposed cement plant and its operations

1. Summary

- As proposed, the cement plant consists of 52 buildings and structures, including material storage, hoppers, conveyors, crushing and grinding systems, a raw mill, preheater, rotary kiln, kiln stack, cooling tower, cement mill and administrative offices.
- The proposed cement plant will be located approximately mid-way between Ottawa and Montreal, less than 2 kilometers from the Ottawa River, a Canadian Heritage River, in Eastern Ontario.
- The proposed cement plant will produce approximately 1.16 million tonnes of Portland cement per year.
- An estimated 500 m³/day or 180,000 m³/year of water will be used by the proposed cement plant to manufacture cement.
- According to Colacem, the proposed cement plant kiln will run 24 hours a day, 7 days a week and 11 months a year, although it could run 365 days a year.
- The kiln will run at 1450 C.
- The kiln smokestack will be 125 metres tall which is a height equivalent to a 35 to 41 story building.
- 100 meters of the kiln smokestack and part of nine other structures will be visible from 14 km away.
- The kiln smokestack by itself will be visible from over 43 kilometres away, along with the cooling tower
- Once operational, the proposed cement plant kiln smokestack will be emitting a combined volume of 1,000,000 m³ of gas, particulate matter, vapours, and pollutants an hour (plume), 24 hours a day and 11 months a year
- The kiln smokestack plume will be visible from a distance of well over 50 kilometres
- Overall there will be a total 96 different pollutants emitted either by the kiln smokestack or from fugitive emissions from raw materials

- Approximately 20 tonnes of pollutants a day will be emitted by the kiln smokestack.
- There will be a total of 94,076 heavy duty diesel transport truck trips (return trips included) outside of the proposed cement plant site.
- There will be 71,700 trips towards Quebec and beyond, and there will be 21,006 trips towards Ottawa. There will also be 1,370 trips locally to collect iron.
- Conservatively, on-road and off-road, the proposed cement plant's heavy duty diesel transport trucks will be driving 9,638,949 kilometers a year in total. This distance is equivalent to driving to the moon one way 25 times.
- The kiln of the proposed cement plant will produce a total of 832,942 tonnes of greenhouse gas per year.
 - 519,480 tonnes will come from the limestone calcination
 - 313,462 tonnes will come from the combustion of the petroleum coke to heat the kiln



Photo of a typical heavy duty diesel transport truck that will be used to transport material to and from the proposed cement plant. Screen capture from Display Boards used during Colacem Open Houses.¹

¹ Colacem - Witness Statement - Rachel Gould (Consultation) 18Sep2020.PDF (Page 111, 126, 208, 223)

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2. Introduction

First the location of the site of the proposed cement plant will be presented in order to establish the overall geographical context. This will be followed by a presentation of some of the facts and figures concerning the cement plant and its activities. These will include the physical aspects of the plant, including its prominence. This will be followed by the transport trucks activities within and outside the proposed site. It will be concluded by a look at the pollutants and greenhouse gas that will be release from the cement plant project. The polluting aspects of the plant are presented in Appendix 3.

3. Location

The proposed cement plant is located approximately mid-way between Ottawa and Montreal, less than 2 kilometers from the Ottawa River, a Canadian Heritage River, in Eastern Ontario.

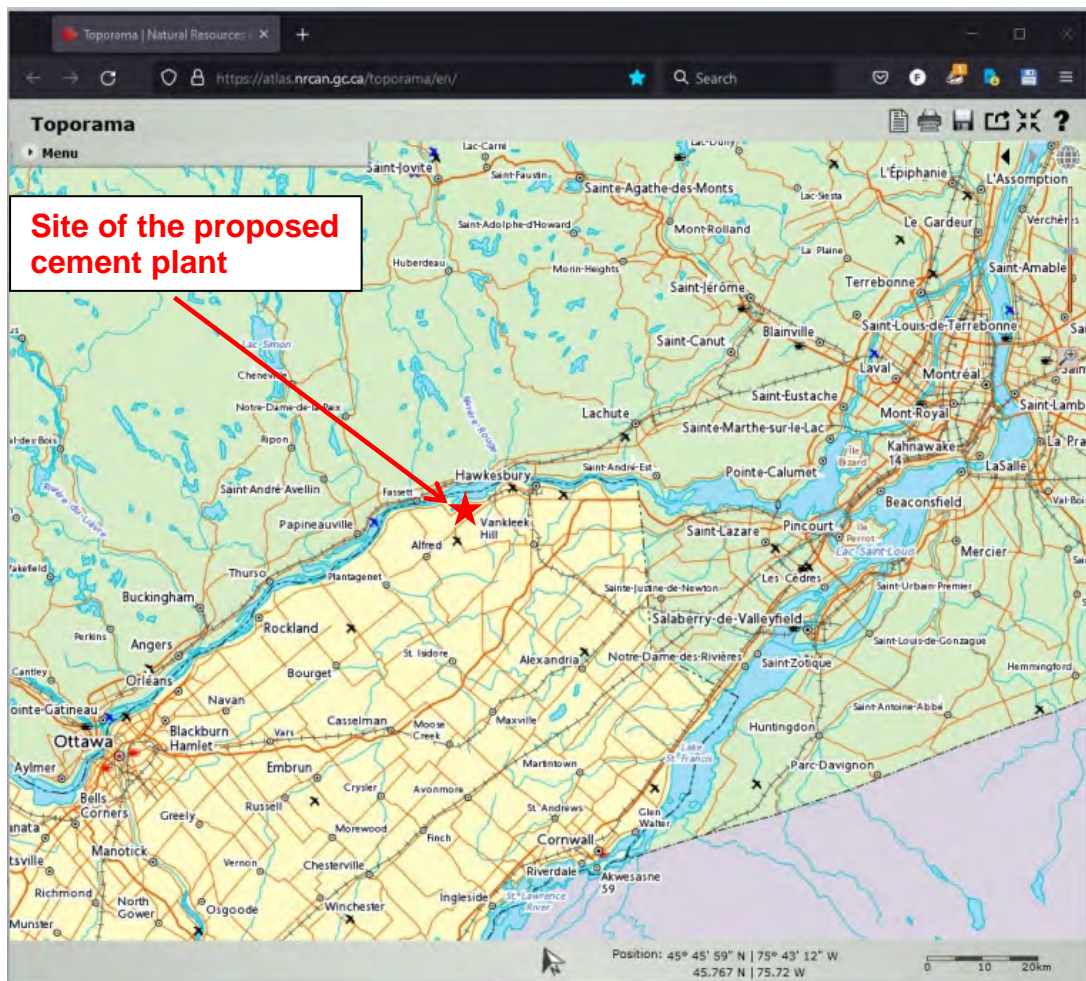


Figure 1. Map showing the location of the proposed cement plant in relation to Ottawa and Montreal.² The area in yellow is in Ontario and the area in green is in Québec.

² Map obtained from The Atlas of Canada - Toporama <https://atlas.nrcan.gc.ca/toporama/en/>



Figure 2. Map illustrating the location of the proposed cement plant in Eastern Ontario. It is less than 2 kilometers away from the Ottawa River, a Canadian Heritage River.

According to Colacem, the proposed site of the cement plant is on their property north of County Road 17, approximately five km west of the Village of L'Orignal.³



Figure 3. Map showing where the proposed cement plant will be located in relation to the Ottawa River, a Canadian Heritage River.⁴

³ Colacem - Witness Statement - Marc Bataille (Background) - 18September2020.pdf (page 6)

⁴ Map obtained from The Atlas of Canada - Toporama <https://atlas.nrcan.gc.ca/toporama/en/>

The proposed site is contiguous to the quarry, on the east side of Colacem's property.

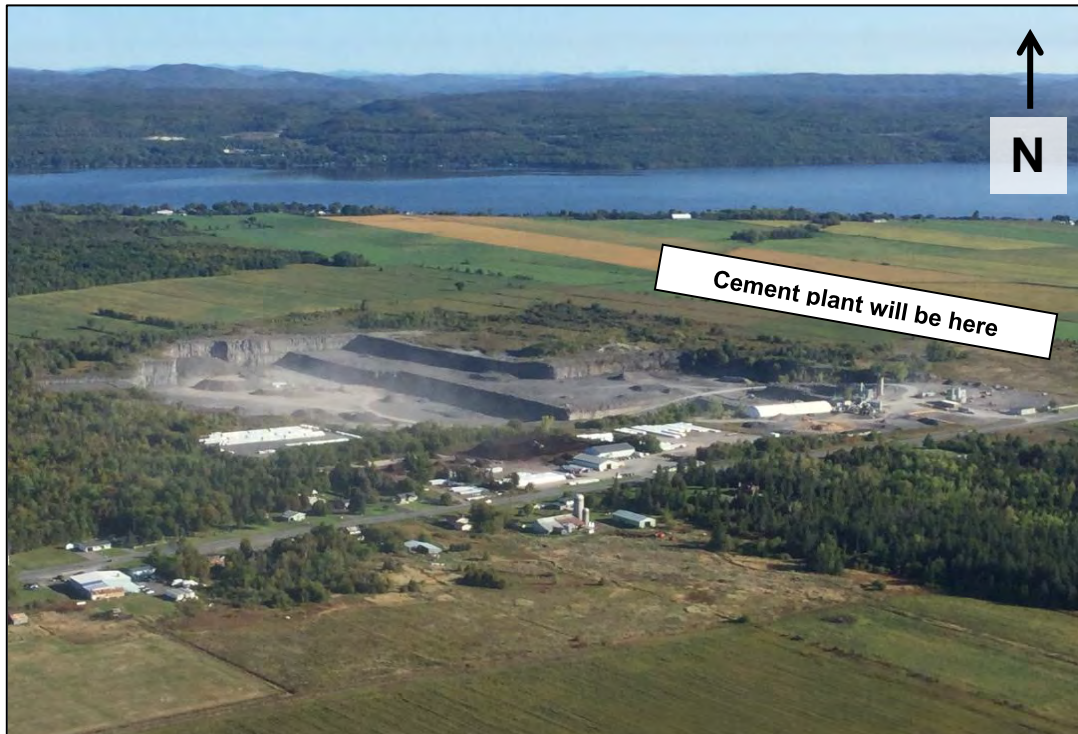


Figure 4. Aerial view looking north towards the Ottawa River with the Colacem quarry in the foreground. Photo courtesy of the Vankleek and District Nature Society. The proposed cement plant location has been added.

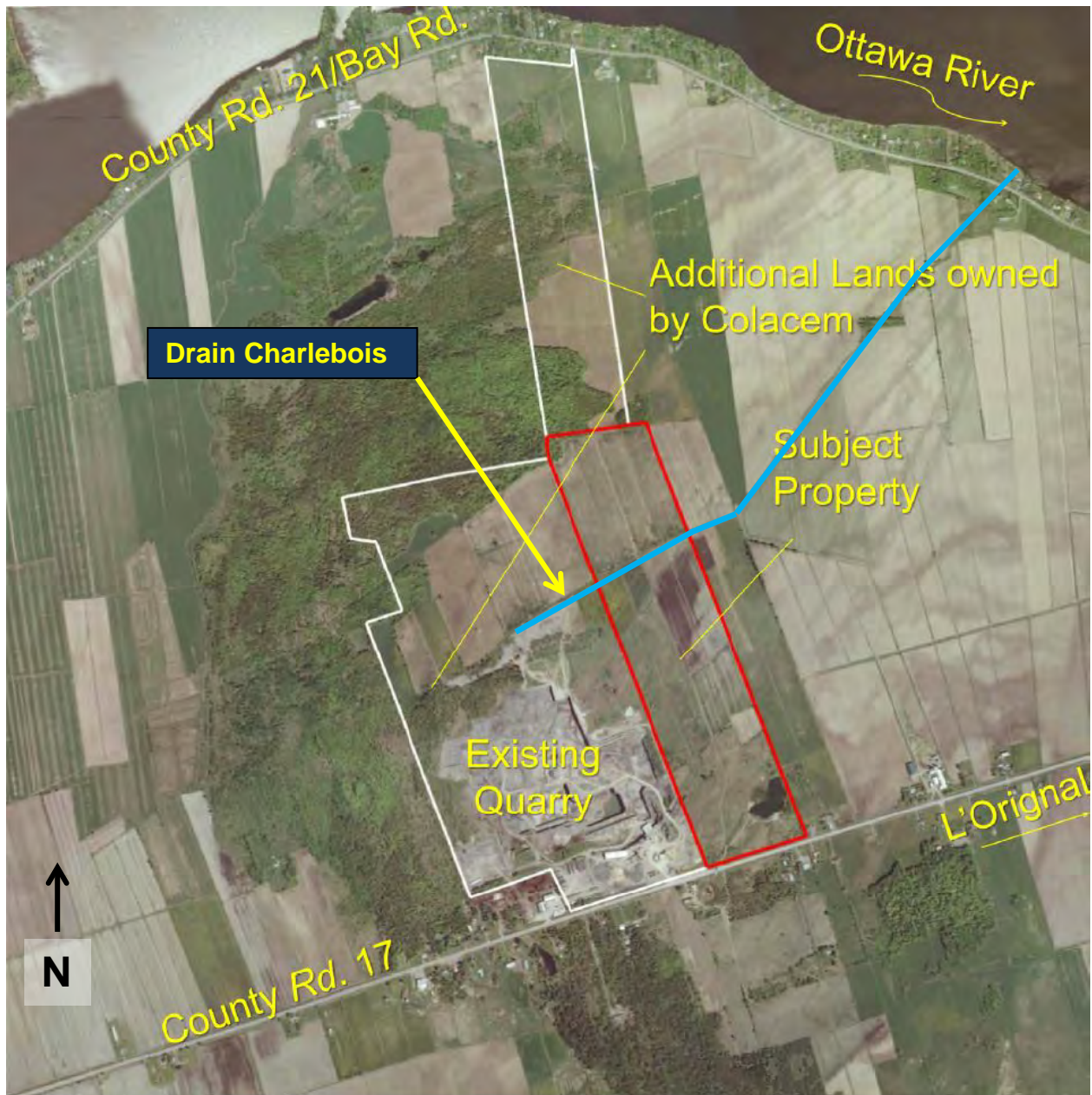


Figure 5. Aerial view of the lots owned by Colacem. It includes the existing quarry, the proposed cement plant project (Subject Property), and lands extending up to a few hundred meters from the Ottawa River. Screen capture from Display Boards used during Colacem Open Houses.⁵

The Drain Charlebois runs directly into the Ottawa River and its outline was added to this figure to indicate its position.

⁵ Colacem - Witness Statement - Rachel Gould (Consultation) 18Sep2020.PDF (Page 51)

4. Facts and figures concerning the proposed cement plant and its activities

Please note that most of these facts and figures were obtained using the information that Colacem provided in their various reports, unless otherwise referenced.

- As proposed, the cement plant consists of 52 buildings and structures, including material storage, hoppers, conveyors, crushing and grinding systems, a raw mill, preheater, rotary kiln, kiln stack, cooling and cooling tower, cement mill and administrative offices.⁶
- An estimated 500 m³/day or 180,000 m³/year of water will be used by the proposed cement plant to manufacture cement.⁷
- According to Colacem, the proposed cement plant kiln will run 24 hours a day, 7 days a week and 11 months a year (page 99, 244, 285, 364)⁸, although it could run 365 days a year (page 40, 302)⁸.
- The kiln will run at 1450 C.⁹
- Once operational, the proposed cement plant kiln smokestack will be emitting a combined volume of 1,000,000 m³ of gas, particulate matter, vapours, and pollutants an hour (plume), 24 hours a day and 11 months a year¹⁰.

4.1 Cement production

The proposed cement plant will have the capacity to produce 3,000 tonnes of clinker per day, with an estimated annual production of 1.16 million tonnes of Portland cement. This volume would be produced with the plant operating 11 months a year although it could operate up to 24 hours per day, 7 days per week, 52 weeks per year¹¹.

They will produce 3,000 tonnes of clinker a day and use approximately 5,040 tonnes of inputs and 288 tonnes of petroleum coke a day to generate 3,480 tonnes of Portland cement a day (**Section 4.5 below**).

⁶ Colacem - Witness Statement - Marc Bataille (Background) - 18September2020.pdf (page 7)

⁷ Ibid (page 10)

⁸ Colacem - Witness Statement - Sean Capstick (Air) 18Sep2020.pdf

⁹ Ibid (page 49, 50, 311, 312).

¹⁰ Colacem - Witness Statement - Sean Capstick (Air) 18Sep2020.pdf (page 57, 96, 100, 208, 241, 244, 282, 285, 319, 361, 364, 532, 533, 606, 607)

¹¹ Ibid. (page 40, 302).

4.2 Kiln smokestack height

The kiln smokestack of the proposed Colacem cement plant will be 125 metres tall¹² (410 feet). If it had been built in May 2017, it would have had the same height as the 123rd tallest building in Ontario. The height was equivalent to a 35 to 41 stories building in 2017.¹³

4.3 Visibility of Colacem's kiln smokestack

- 100 meters of the kiln smokestack and part of nine other structures will be visible from 14 km away (Figure 6).
- The kiln smokestack by itself will be visible from over 43 kilometres away, along with the cooling tower (Figure 7).

These distances were calculated using the established formula for such estimates^{14 15}.

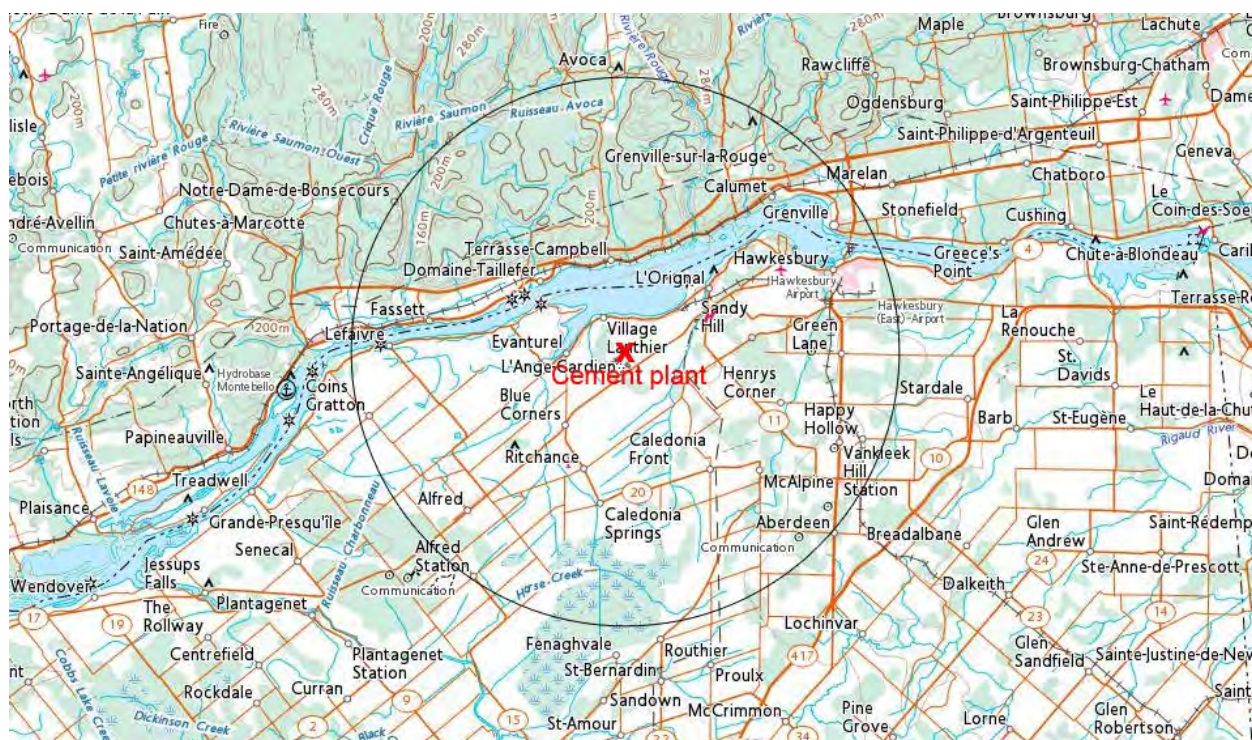


Figure 6. Map showing the municipalities in Ontario and in Quebec that are within a radius of 14 kilometers from the kiln smokestack of the proposed cement plant and that will have a view of the top 100 metres of the kiln smokestack.¹⁶

¹² Ibid (page 5, 64)

¹³ Ontario Skyscraper Diagram. Accessed May 15, 2017.

<http://skyscraperpage.com/diagrams/?searchID=77039940&offset=150>

¹⁴ Horizon. Wikipedia, accessed February 13, 2018. <https://en.wikipedia.org/wiki/Horizon>

¹⁵ Refraction. Wikipedia, accessed February 13, 2018. <https://en.wikipedia.org/wiki/Refraction>

¹⁶ Map obtained from The Atlas of Canada - Toporama <https://atlas.nrcan.gc.ca/toporama/en/>

Depending on ambient conditions, an observer 14 kilometers away will be able to see more than 100 metres of the 125 meters high kiln smokestack with an unobstructed line of sight. Nine other structures on the proposed cement plant site will also be visible.

Figure 7 below illustrates the area in Ontario and in Quebec which will be within a radius of 43 kilometers of the smoke kiln stack of the proposed cement plant. Depending on ambient conditions, an observer 43 kilometers away, with an unobstructed line of sight, will see the upper part of the kiln smokestack along with its cooling tower.



Figure 7. Map showing the municipalities that are within a radius of 43 kilometers from the kiln smokestack of the proposed cement plant. The municipalities in the yellow area are within Eastern Ontario while the ones in the green area are in Quebec.¹⁷

4.4 Visibility of the proposed cement plant's kiln smokestack plume

Once operational, the proposed cement plant kiln will be emitting an actual volume of 1,000,000 m³ of gas, particulate matter, vapours and pollutants **an hour**, 24 hours a day and 333 days a year according to Colacem.¹⁸

This gas, particulate matter, pollutants, and vapours are commonly referred to as a plume. This plume could possibly be 50 to 150 meters (164 to 492 feet) high above the stack depending on

¹⁷ Map obtained from The Atlas of Canada - Toporama <https://atlas.nrcan.gc.ca/toporama/en/>

¹⁸ Colacem - Witness Statement - Sean Capstick (Air) 18Sep2020.pdf (page 57, 96, 100, 208, 241, 244, 282, 285, 319, 361, 364, 532, 533, 606, 607)

ambient conditions (note that Colacem has not specified how high the plume will be anywhere in their documents).

Consequently, when in operation and depending on ambient conditions, the plume could possibly be visible from a distance of well over 50 kilometres away if there is an unobstructed line of sight. Figure 7 shows a 43 kilometer radius around the proposed cement plant kiln. The visibility of the kiln smokestack plume will be well beyond that circle.

4.5 Mass inputs and outputs of the proposed cement plant operations

The mass inputs and outputs of the proposed cement plant must first be calculated in order to be able to estimate the truck traffic that this proposed plant will likely generate.

Table 1. Simplified Mass Balance (dry basis) to produce Portland cement at the proposed cement plant.¹⁹ The values of tonnes / hour were copied from Colacem's document.

Raw meal production balance (dry basis). All mass values are expressed in metric tonnes			
	tonnes/hour ¹	tonnes/day ²	tonnes/year ³
Limestone (for raw meal)	159	3,816	1,270,728 ¹
Shale	10	240	79,920
Silica	17	408	135,864
Iron ore	3	72	23,976
Bauxite	6	144	47,952
TOTAL 1 (raw meal)	195	4,680	1,558,440
Clinker production mass balance (dry basis)			
	tonnes/hour	tonnes/day	tonnes/year
Raw meal (total 1 above)	195	4,680	1,558,440
Petcoke	12	288	95,904
CLINKER produced	125	3,000	999,000
Cement production mass balance (dry basis)			
	tonnes/hour	tonnes/day	tonnes/year
Clinker (value above)	125	3,000	999,000
Limestone (for cement)	7	168	55,944
Gypsum	8	192	63,936
Silica fume	1	24	7,992
Fly Ash	4	96	31,968
Portland cement	145	3,480	1,158,840

¹ Original values that Colacem supplied to a peer reviewer.¹⁹

² Hourly values multiplied by 24.

³ Tonnes per day multiplied by 333 which is the number of days which gives the closest value to 1,160,000 tonnes a year (level of production stated by Colacem).²⁰

¹⁹ Colacem - Witness Statement - Sean Capstick (Air) 18Sep2020.pdf (page 181).

²⁰ Ibid (page 19, 40, 49, 52, 128, 257, 261, 302, 311, 314, 393, 502, 577, 640, 666)

Summary of the mass involved:

- According to the simplified mass balance, 145 tonnes / hour of Portland cement will be produced which represents 3,480 tonnes / day.
- Colacem expects to produce 1,160,000 metric tonnes of Portland cement a year according to the information that they supplied in their reports
- This predicted annual production means that the plant will operate 333 days a year, 24 hours a day (1,160,000 tonnes a year / 3,480 tonnes a day). This is further confirmed in Sean Capstick's Witness Statement where it is stated "The kiln is proposed to operate 24 hours per day, 7 days per week and up to 11 months per year".²¹

4.6 Yearly truck traffic to and from the proposed cement plant

It is possible to estimate the heavy duty diesel transport truck traffic to and from the proposed cement plant project by using the mass of the inputs and outputs. Figure 8 illustrate the type of transport truck that will be used outside the proposed cement plant site.



Figure 8. Photo of a typical heavy duty diesel transport truck that will be used to bring material to and from the proposed cement plant. Screen capture from Display Boards used during Colacem Open Houses.²²

²¹ Colacem - Witness Statement - Sean Capstick (Air) 18Sep2020.pdf (page 99, 244, 285, 364)

²² Colacem - Witness Statement - Rachel Gould (Consultation) 18Sep2020.PDF (Page 111, 126, 208, 223)

According to the witness statement of Colacem’s traffic expert, Christopher Lyon, the heavy duty diesel transport truck that will be bringing raw material to the proposed site and that will be delivering cement powder outside the proposed site will carry 35 metric tonnes at a time.²³ Using this information, combined with the mass balance from Table 1 above, it is possible to estimate the number of trucks trips that will be required by the proposed cement plant project.

Table 2. Number of 35 tonnes heavy duty diesel transport truck trips coming in and out of the proposed cement plant site per year, either delivering cement powder or bringing in raw material. The number of trips was calculated using the mass from Table 1 and dividing it by 35, which is the mass carried by the heavy duty transport trucks.

Inputs	Metric tonnes/year	Total number of one way truck trips	Number of 35 metric tonnes trucks trips coming from or going to ^A	
			East	West
Shale	79,920	2,283	2,283	
Silica	135,864	3,882	3,882	
Iron	23,976	685	685	
Bauxite	47,952	1,370	1,370	
Petroleum coke (petcoke)	95,904	2,740	2,740	
Gypsum	63,936	1,827	1,827	
Silica fume	7,992	228	114	114
Fly Ash	31,968	913	457	456
	Metric tonnes/year	Truck trips	Number of trucks trips coming from or going to	
Outputs			East	West
Portland cement delivery outside the site	1,158,840	33,110	23,177	9,933
Total one way trips		47,038	36,535	10,503
Total, including return trips		94,076	73,070	21,006

^A It is assumed that the 35 tonnes mass that the heavy duty diesel transport trucks will be carrying are in metric tonnes. If these were short tons (US tons), then all the truck trips values should be increased by 10.23%.

Overall, yearly, there will be 73,070 truck trips toward the Province of Quebec and there will be 21,006 truck trips towards Ottawa, all on County Road 17 which is the road in front of the site of the proposed cement plant.

²³ Colacem - Witness Statement - Christopher Lyon (Traffic) - 17September2020.PDF (Page 32, 70)

4.7 Yearly truck traffic bringing limestone internally from the quarry to the proposed cement plant site.

Using the same approach as in Section 4.6 above, it is possible to calculate how many trips the extra heavy duty diesel transport trucks (65 metric tonnes loads) will be making from the quarry to the site of the proposed cement plant. Using this information, combined with the mass balance from Table 1 above, it is possible to estimate the number of trucks trips that will be required to bring limestone from the quarry to the site of the proposed cement plant project (Table 3).

Table 3. Number of 65 tonnes extra heavy duty transport truck trips coming in and out of the proposed cement plant site per year, delivering limestone from the quarry. The number of trips was calculated using the mass from Table 1 and dividing it by 65, which is the mass carried by these heavy duty transport trucks internally.²⁴

Inputs	Metric tonnes/year	Total number of 65 tonnes truck trips coming from the quarry^A
Limestone (for raw meal)	1,270,728	19,550
Limestone (for cement)	55,944	861
Total one way trips		20,411
Total, including return trips		40,822

^A It is assumed that the 65 tonnes mass that the trucks will be carrying are in metric tonnes. If these were short tons (US tons), then all the truck trips values should be increased by 10.23%.

4.8 Yearly distance travelled by the transport trucks to and from the proposed cement plant site to pick-up raw material or to deliver the cement powder

The raw material categories are the same as those used in Table 2 and Table 3. Several scenarios using various assumptions had to be developed in order to estimate distances driven when none were supplied in Colacem's documents. Overall, very conservative estimate were used and the details are presented in the sub-sections below.

4.8.1 Bauxite, Petroleum coke (petcoke) and Gypsum

Two ports have been identified for taking delivery of bauxite, gypsum and petcoke: Port of Montreal (Contrecoeur Marine Terminal) and Port of Valleyfield.²⁵ However, because the traffic study did not identify which port would deliver which raw material, various scenarios had to be made in order to calculate the potential distance that the transport trucks will have to cover.

The most conservative estimate for the distance driven to ports would be 122.5 kilometers, which is the average between both ports.

²⁴ Colacem - Witness Statement - Sean Capstick (Air) 18Sep2020.pdf (page 250, 291, 370, 493, 497, 535, 545, 619, 629)

²⁵ Colacem - Witness Statement - Christopher Lyon (Traffic) - 17September2020.PDF (Page 32, 58, 70)

Port of Montreal (Contrecoeur Marine Terminal)

Table 4. Routes distance from the proposed cement plant to Contrecoeur Marine Terminal, 1920 Route Marie Victorin, Contrecoeur, QC J0L 1C0

Route	km ¹
via Route Transcanadienne E/Autoroute 40 E	163
via Autoroute 50 E	166
via Autoroute 30	181
Average	170

¹ The distances were obtained using Google maps. When alternate routes were suggested, they were included in the list.

Port of Valleyfield

Table 5. Routes distance from the proposed Colacem cement plant to the Port de Valleyfield, 950 Boulevard Gérard-Cadioux, Salaberry-de-Valleyfield, QC J6T 6L4

Route	km ¹
via Route Transcanadienne E/Autoroute 40 E	88.7
via County Rd 17 and QC-201 S	82.0
Average	85.4

¹ The distances were obtained using Google maps. When alternate routes were suggested, they were included in the list.

Scenarios of the distance travelled to the ports:

Table 6. Scenarios of minimum, average, and maximum distance travelled to and from ports.

Port	One way distance (km)		
	Minimum	Average	Maximum
Port of Montreal (Contrecoeur)	163	170	181
Port of Valleyfield	82	85.4	88.7
Average	122.5	127.7	134.9

The most conservative estimate for the distance driven to ports would be 122.5 kilometers, which is the average between both ports.

4.8.2 Shale, silica and iron

The exact distance to pick-up shale and silica sand is indicated in this document.²⁶

Iron ore will be coming from Ivaco Rolling Mills, 5.1 kilometers east of the proposed cement plant site. The distance was obtained using Google maps and adding a short distance within each site to truly represent a driving distance.

Table 7. Distance to picking-up shale, silica sand and iron for the cement plant.

		Direction	One way distance (km)
Shale	Coming from a quarry 90 Km east of the proposed cement plant ²⁶	East	90
Silica sand	Coming from a quarry 90 Km east of the proposed cement plant ²⁶	East	90
Iron	Coming from IVACO Steel Mill, 5.1 km from the proposed cement plant	East	5.1

4.8.3 Silica fume and fly ash

The distance to pick-up silica fume and fly ash was not indicated in the documents consulted. Consequently, some hypotheses were made to calculate distances that will be driven since only west or east were specified as pick-up. As a very conservative estimate, the major cities (Ottawa to the west, Montreal to the east) were selected as pickup points.

Both silica fume and fly ash will have the same mass collected east and west of the proposed cement plant site.

East pickup of silica fume and fly ash in the Montreal area

Table 8. Distance from the proposed Colacem cement plant to the Montreal area.

Route	km ¹
via Route Transcanadienne E/Autoroute 40 E and Autoroute 20	110
via Route Transcanadienne E/Autoroute 40 E	110
via Autoroute 30	129
Average	116.3

¹ The distances were obtained using Google maps. When alternate routes were suggested, they were included in the list.

²⁶ Colacem - Witness Statement - Christopher Lyon (Traffic) - 17September2020.PDF (Page 58, 70)

The most conservative estimate for the distance driven to Montreal for pickup of silica fume and fly ash would be 110 kilometers.

It should be noted that the Material Safety Data Sheet for silica fume provided by Colacem list the supplier's address as being at a location 242 kilometer east of the proposed cement plant site.²⁷ However, in order to be conservative, 110 kilometers will be used.

West pickup of silica fume and fly ash in the Ottawa area

Table 9. Distance from the proposed Colacem cement plant to the Ottawa area.

Route	km ¹
via County Rd 17 and Ottawa Regional Rd 174	85.8
via Prescott and Russell County Rd 2 and Russell Rd/Ottawa Regional Rd 26 W	89.3
via Trans-Canada Hwy/ON-417 W	119
Average	98.0

¹ The distances were obtained using Google maps. When alternate routes were suggested, they were included in the list.

The most conservative estimate for the distance driven to Ottawa for pickup and delivery would be 85.8 kilometers.

4.8.4 Internal distance to deliver the limestone from the adjacent quarry to the proposed cement plant site

Internally, 1,270,728 tonnes of limestone will be delivered as raw material and another 55,944 tonnes of limestone will be needed to incorporate in the cement mixture. The internal distance is conservatively estimated to be 1 km one way. The total mass of limestone is 1,326,672 tonnes that will be carried by 65 tonnes trucks. This represents a total of 40,822 kilometers that will be driven internally, including return trips.

²⁷ Colacem - Witness Statement - Sean Capstick (Air) 18Sep2020.pdf (Page 483)

4.8.5 Distance from the proposed cement plant to where the cement powder will be delivered

The cement powder will be delivered east and west of the proposed cement plant site.

Thirty percent (30 %) will be delivered towards Ottawa and 70 % will be delivered east in Quebec ²⁸ but also exported internationally from there.²⁹

Without more details available, a very conservative estimation of the distance for the delivery of the cement powder will be to use the same distances as those identified for silica fume and fly ash in Section 4.8.3.

East cement powder delivery towards Montreal:

The most conservative estimate for the distance driven to Montreal for the delivery of cement powder would be 110 kilometers. It is very likely much more, especially for the cement powder that will be exported to the northeastern United States.

West cement powder delivery towards Ottawa:

The most conservative estimate for the distance driven to Ottawa for the delivery of cement powder would be 85.8 kilometers.

²⁸ Colacem - Witness Statement - Christopher Lyon (Traffic) - 17September2020.PDF (Page 58, 70)

²⁹ Colacem - Witness Statement - Rachel Gould (Consultation) 18Sep2020.PDF (Page 136, 137, 140, 141, 233, 234, 237, 238)

4.8.6 Summary of the total number of kilometers driven to pick-up raw material or for cement powder delivery east and west

A very conservative approach was used to estimate what the driving distance might be to get raw material or to deliver cement powder.

Table 10. Compilation of the likely distance that will be driven to pick-up raw material or for cement powder delivery east and west

EAST towards Montreal	One way distance	Number of trips (one way)	Total number of kilometers driven (return trip included)
Incoming material to the plant	(km)		(km)
Gypsum (Port of Montreal)	122.5	1,827	447,615
Petcoke (Port of Montreal)	122.5	2,740	671,300
Bauxite (Port of Montreal)	122.5	1,370	335,650
Iron (5.1 km east of the plant)	5.1	685	6,987
Shale (outside quarry)	90	2,283	410,940
Silica fume (Montreal)	110	114	25,080
Fly ash (Montreal)	110	457	100,540
Silica sand (outside quarry)	90	3,882	698,760
Cement delivery from the plant	(km)		(km)
Cement delivery (Montreal)	110	23,177	5,098,940
Total		36,535	7,795,812
WEST towards Ottawa	One way distance	Number of trips (one way)	Total number of kilometers driven (return trip included)
Incoming material to the plant	(km)		(km)
Silica fume (Ottawa)	85.8	114	19,562
Fly ash (Ottawa)	85.8	456	78,250
Cement delivery from the plant	(km)		(km)
Cement delivery (Ottawa)	85.8	9,933	1,704,503
Total		10,503	1,802,315
Internal limestone delivery from the quarry to the plant	One way distance	Number of trips (one way)	Total number of kilometers driven (return trip included)
Incoming material to the plant	(km)		(km)
Limestone (quarry)	1	20,411	40,822
Total		20,411	40,822
Grand total		67,449	9,638,949

Overall, the heavy duty diesel transport trucks (35 tonnes) will be driving 9,598,127 kilometers either to collect raw material out of the proposed cement plant site or to deliver cement powder. Internally, the extra heavy duty transport trucks (65 tonnes) will be driving 40,822 kilometers bringing limestone from the quarry to the cement plant site.

There will be 94,076 truck trips (return trips included) outside of the proposed cement plant site. There will be 71,700 trips to Quebec and beyond, and there will be 21,006 trips towards Ottawa. There will also be 1,370 trips locally to collect iron.

Conservatively, on-road and off-road, the proposed cement plant trucks will be driving 9,638,949 kilometers per year in total. This distance is equivalent to driving to the moon one way 25 times. According to NASA, the moon is 384,400 km away from Earth, on average.³⁰

4.9 Pollutants that will be released by the proposed cement plant and its activities.

The emissions generated by the proposed cement plant and its activities can be grouped in two broad categories:

- 1- the kiln smokestack source which will be emitting the greatest number of different pollutants in the atmosphere.;
- 2- fugitive emissions from most activities taking place on the site of the proposed cement plant, from raw material transport, receiving and processing to delivery of cement finished products along with numerous intermediate steps.³¹

Overall there will be a total 95 different pollutants that will be emitted either by the kiln smokestack or by fugitive emissions from raw materials. A 96th pollutant is ozone which is the result of photochemical reactions between NO_x and volatile organic compounds (VOCs) in the atmosphere, both of which will be emitted from the Colacem proposed cement plant.

4.9.1 Kiln smokestack emissions

There will be 72 pollutants emitted through the kiln stack. The 7 most important are listed in Table 11 below and the 65 others are listed in Table 12.

³⁰ How Far Away Is the Moon? <https://spaceplace.nasa.gov/moon-distance/en/>

³¹ Colacem - Witness Statement - Sean Capstick (Air) 18Sep2020.pdf (page 131-132 and 396-397)

Table 11. List of some of the major pollutants that will be emitted by the kiln smokestack and their corrected mass per year and per day.

Pollutant	Colacem erroneous values (US tons/year) ^D	Corrected values (metric tonne/year) ^E	Corrected values (metric tonne/day) ^F
SPM ^A (Suspended Particulate Matter)	209	230	0.69
PM ₁₀ ^B (Particulate Matter ≤ 10 micrometres)	107	118	0.35
PM _{2.5} (Particulate Matter ≤ 2.5 micrometres)	71.3	79	0.24
Carbon Monoxide	2,220	2,447	7.35
Nitrogen Oxides (expressed as NO ₂)	2,130	2,348	7.05
Sulfur Dioxide	1,110	1,224	3.67
Dioxins and Furans (TEQ) (gram) ^C	0.486 ^C	0.536 ^C	0.00161 ^C
Total	5,669	6,249	18.8

^A SPM stands for the total amount of suspended particulate matter, it includes the values for PM₁₀ and PM_{2.5}

^B PM₁₀ stands for particulate matter equal to or smaller than 10 micrometres (microns), which also includes the values for PM_{2.5} (which stands for particulate matter equal to or smaller than 2.5 micrometres (microns))

^C The mass for dioxins and furans is in grams

^D Values taken directly from Colacem's document. ³²

^E **During the zoning change hearings, it was revealed that Colacem used US short tons instead of metric tonnes for their calculations. Consequently, values were increased by 10.23% to reflect reality.** ³³

^F The values per day were calculated by dividing the corrected values by 333 days, in line with the utilization factor that Colacem used. ³⁴

³² Colacem - Witness Statement - Sean Capstick (Air) 18Sep2020.pdf (Page 279, 527, 567)

³³ Decision delivered by N.P. Robinson and order of the tribunal. Local Planning Appeal Tribunal - Tribunal d'appel de l'aménagement local. Issue Date: April 12, 2021. Case No(s):PL170756 <https://olt.gov.on.ca/tribunals/lpat/e-decisions/> and search for PL170756. Paragraph [40].

³⁴ Colacem - Witness Statement - Sean Capstick (Air) 18Sep2020.pdf (Page 532, 533, 606, 607).

Table 12. List of the 65 other pollutants that will be emitted from the kiln smokestack.³⁵

Inorganic pollutants	Organic pollutants
Aluminum	Acenaphthylene
Ammonia	Acetone
Ammonium	Benzaldehyde
Arsenic	Benzene
Barium	Benzo(a)anthracene
Beryllium	Benzo(a)pyrene
Cadmium	Benzo(b)fluoranthene
Calcium Oxide	Benzo(g,h,i)perylene
Chloride	Benzo(k)fluoranthene
Chromium	Benzoic acid
Copper	Biphenyl
Hydrogen Chloride	Bis(2-ethylhexyl)phthalate
Hydrogen Fluoride	Bromomethane
Iron	C3 benzenes
Lead	C4 benzenes
Manganese	C6 benzenes
Mercury	Carbon disulfide
Nitrate	Chlorobenzene
Potassium	Chloromethane
Selenium	Chrysene
Silver	Dibenz(a,h)anthracene
Sodium	Di-n-butylphthalate
Sulfate	Ethylbenzene
Sulfur trioxide	Fluoranthene
Thallium	Fluorene
Titanium	Formaldehyde
Zinc	Freon 113
	Indeno(1,2,3-cd)pyrene
	Methyl ethyl ketone
	Methylene chloride
	Methylnaphthalene
	Naphthalene
	Phenanthrene
	Phenol
	Pyrene
	Styrene
	Toluene
	Xylenes

³⁵ Colacem - Witness Statement - Sean Capstick (Air) 18Sep2020.pdf (Page 102, 227-228, 246, 287, 333-334, 366)

4.9.2 Fugitive emissions from raw materials

Table 13. List of the 41 different pollutants reported to be present in one or several of the 9 main sources of raw material that will be used by the proposed cement plant.³⁶

Product	Contaminant	Product	Contaminant
Limestone	SPM	Petcoke	SPM
Limestone	Calcium carbonate, limestone	Petcoke	Antimony
Limestone	Magnesium carbonate	Petcoke	Arsenic
Limestone	Crystalline Silica	Petcoke	Barium
		Petcoke	Beryllium
Silica	SPM	Petcoke	Cadmium
Silica	Aluminum oxide	Petcoke	Chromium
Silica	Ferric oxide	Petcoke	Cobalt
Silica	Titanium dioxide	Petcoke	Copper
Silica	Silicon dioxide	Petcoke	Lead
		Petcoke	Manganese
Bauxite	SPM	Petcoke	Mercury
Bauxite	Aluminum oxide	Petcoke	Nickel
Bauxite	Calcium oxide	Petcoke	Selenium
Bauxite	Ferric oxide	Petcoke	Silver
Bauxite	Potassium oxide	Petcoke	Thallium
Bauxite	Sodium oxide	Petcoke	Vanadium
Bauxite	Titanium dioxide	Petcoke	Zinc
Bauxite	Silicon dioxide	Petcoke	Tellurium
Gypsum	SPM	Iron Oxide	SPM
Gypsum	Calcium sulfate dihydrate	Iron Oxide (ore)	Silicon Dioxide
Gypsum	Crystalline Silica	Iron Oxide (ore)	Calcium Oxide
		Iron Oxide (ore)	Ferric Oxide
Shale	SPM		
Shale	Antimony	Iron Steel	SPM
Shale	Arsenic	Iron Steel	Aluminum
Shale	Barium	Iron Steel	Boron
Shale	Beryllium	Iron Steel	Chromium
Shale	Cadmium	Iron Steel	Copper
Shale	Chromium	Iron Steel	Ferric Oxide
Shale	Cobalt	Iron Steel	Manganese
Shale	Copper	Iron Steel	Molybdenum
Shale	Lead	Iron Steel	Nickel
Shale	Manganese	Iron Steel	Phosphorus
Shale	Mercury	Iron Steel	Sulphur
Shale	Nickel	Iron Steel	Vanadium
Shale	Selenium	Iron Steel	Titanium
Shale	Silver	Iron Steel	Silicon
Shale	Thallium	Iron Steel	Carbon
Shale	Vanadium	Iron Steel	Tin
Shale	Zinc		
Shale	Tellurium	Silica Fume	SPM
		Silica Fume	PM10
		Silica Fume	Silica Fume
		Silica Fume	Crystalline

³⁶ Colacem - Witness Statement - Sean Capstick (Air) 18Sep2020.pdf (Page 445-446)

4.10 Greenhouse gas that will be emitted from the kiln operation

This section is only examining the greenhouse gas (GHG) that the proposed cement plant will be emitting from its kiln operation. The other sources of greenhouse gas associated with the proposed cement plant project will be discussed in Appendix 7.

The kiln will produce greenhouse gas from two distinct processes:

- 1- the limestone calcination
- 2- the combustion of the petroleum coke (petcoke) to heat the kiln.

4.10.1 Greenhouse gas emitted through the limestone calcination process

In cement manufacture, CO₂ is produced during the production of clinker which is made by heating a homogeneous mixture of raw materials in a rotary kiln at a high temperature. During the production of clinker, limestone, which is mainly calcium carbonate (CaCO₃), is heated, or calcined, which generates lime (CaO), and CO₂.

The Intergovernmental Panel on Climate Change (IPCC) has developed internationally agreed upon greenhouse gas calculation standards. In the case for making clinker, the IPCC recommends using an emission factor of 0.52 tonnes CO₂ / tonne clinker when calculating CO₂ emissions.³⁷

Consequently, according to this emission factor, the proposed cement plant, which is expected to produce 999,000 metric tonnes of clinker per year (Table 1 in Section 4.5 of this Appendix), will be emitting 519,480 metric tonnes of CO₂ a year.

This CO₂ mass produced during the calcination of limestone would remain the same even if only green energy was used instead of petcoke to heat the kiln.

4.10.2 Greenhouse gas emitted by the petroleum coke heating the kiln

The fuel needed to produce the heat required to break down the CaCO₃ is also a source of greenhouse gas.

Petroleum coke (petcoke) has been identified as the fuel that will be used by the proposed cement plant to produce the heat required to break down the CaCO₃. Petcoke is also a source of greenhouse gas.

³⁷ Chapter 2: Mineral Industry Emissions of Volume 3: Industrial Processes and Product Use of the 2006 IPCC Guidelines for National Greenhouse Gas Inventories, Prepared by the National Greenhouse Gas Inventories Programme, Eggleston H.S., Buendia L., Miwa K., Ngara T. and Tanabe K. (eds). Published: IGES, Japan. Equation 2.4 on page 2.12
<https://www.ipcc-nggip.iges.or.jp/public/2006gl/vol3.html>

The IPCC recommends using the following emission factors for petroleum coke: 97,500 kg of CO₂, 3 kg of CH₄ (methane) and 0.6 kg of N₂O (nitrous oxide) per terajoule (TJ) on a net calorific basis.³⁸

The raw composition of the petroleum coke that will be used by the proposed cement plant project has been provided in Colacem's documentation.³⁹

The detailed calculation to find the total energy, in terajoules (TJ), that will be required yearly by the kiln of the proposed cement plant is as follows:

Table 15. Calculation of the energy, in terajoules, that is in the petroleum coke that will be used as kiln fuel yearly.

Numbers	Description
95,904	tonnes of petroleum coke per year ^A
95,904,000	kg of petroleum coke per year
7,980,000	calories per kg of petroleum coke (obtained directly from this source) ⁴⁰
$7.65314 * 10^{14}$	Calories per year of petroleum coke burned (95,904,000 kg * 7,980,000 calories per kg)
1 calorie (mean)	= 4.1900 joules ⁴⁰
$3.20667 * 10^{15}$	joules per year (4.1900 joules* $7.65314 * 10^{14}$)
$3.20667 * 10^3$	TJ per year ^B ($3.20667 * 10^{15}$ joules / 10^{12} joules)
3,206.7	TJ per year

^A Value calculated in Table 1 of Section 4.5 in this Appendix

^B 1 terajoule (TJ) = 10^{12} joules

Table 16. IPCC greenhouse gas emission factors for the mass of petroleum coke (petcoke) that will be used as kiln fuel yearly.

	CO ₂ metric tonne	CH ₄ metric tonne	N ₂ O metric tonne
Petroleum coke (3,206.7 TJ per year)	312,650.3	9.62	1.92

³⁸ Chapter 2: Stationary Combustion of Volume 2: Energy of the 2006 IPCC Guidelines for National Greenhouse Gas Inventories, Prepared by the National Greenhouse Gas Inventories Programme, Eggleston H.S., Buendia L., Miwa K., Ngara T. and Tanabe K. (eds). Published: IGES, Japan. Table 2.2 "Default emission factors for stationary combustion in the energy industries" (kg of greenhouse gas per TJ on a Net Calorific Basis) on page 2.16.

<https://www.ipcc-nggip.iges.or.jp/public/2006gl/vol2.html>

³⁹ Colacem - Witness Statement - Sean Capstick (Air) 18Sep2020.pdf (page 179)

⁴⁰ Calorie. <https://en.wikipedia.org/wiki/Calorie>

According to the Canadian federal government, all greenhouse gases (GHGs) are not equal. Each greenhouse gas has a unique atmospheric heat-trapping potential.⁴¹

Table 17. Relative importance in atmospheric heat-trapping potential of the three most common greenhouse gases.

Gas	Global Warming Potential (GWP)
CO ₂ (carbon dioxide)	1
CH ₄ (methane)	25
N ₂ O (nitrous oxide)	298

For example, CH₄ is 25 times more damaging than CO₂ when greenhouse gases are concerned.

Table 18. Calculated emissions of greenhouse gases (CO₂e) from the combustion of 95,904 metric tonnes of petcoke a year by the proposed cement plant.

	Metric tonnes of CO ₂ e			
	CO₂	CH₄	N₂O	Total CO₂e^A
Emissions of greenhouse gases from 95,904 metric tonnes of petcoke	312,650	240	572	313,462

^A CO₂e is carbon dioxide equivalent

Table 19. Yearly production of CO₂e by the proposed cement plant.

	Metric tonnes per year
Metric tonnes of CO ₂ produced from raw material in a year	519,480 ^A
Metric tonnes of CO ₂ e produced from petroleum coke in a year	313,462
Total number of metric tonnes of CO₂e emitted in a year	832,942

^A This quantity of greenhouse gas would be emitted by that process even if the whole plant was powered by clean energy. The calcination of the limestone will release this quantity of CO₂ regardless of its energy source.

⁴¹ Government of Canada. Environment and Climate Change Canada. Global Warming Potentials. <https://www.canada.ca/en/environment-climate-change/services/climate-change/greenhouse-gas-emissions/quantification-guidance/global-warming-potentials.html>

In one of Colacem's documents, they stated:

The annual GHG emissions estimated by Colacem are 783,702 tonnes based on the maximum production.⁴²

However they did not publicly disclosed how they arrived at this value. The estimate of 832,942 tonnes of GHG emissions, as detailed above, was based on Colacem's mass and energy information that they supplied and analysed using internationally agreed upon greenhouse gas calculation standard. This is the value that will be used in the discussions concerning greenhouse gas emissions from the proposed cement plant.

⁴² Colacem - Witness Statement - Sean Capstick (Air) 18Sep2020.pdf (Page 656)

Appendix 2

Cement industry in Canada in 2018

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1. Introduction and summary

There were 16 cement plants in operation in Canada in 2018; of those, six cement plants were operating in Ontario and 5 were operating in Quebec. 2018 was used as the reference year because this is the most recent year for which Statistics Canada has made the production and export mass data available.

Canada has been a net exporter of cement for many years. In 2018, we exported 4.5 million tonnes. This represents one third of our total production of cement and this trend has been steadily increasing since 2013.

Internationally, Canada is consistently classified among the top 4 to 6 biggest exporter of cement in the world.

According to the Cement Association of Canada and some cement company members, the cement industry was operating at approximately 60 % capacity in 2014 and new cement plants were not required.¹² In 2019, the industry was still being reported as operating at less than full capacity³.

Colacem, in their various brochures and in their expert witness statements, has stated that they will export 70 % of their production to Quebec⁴⁵ and internationally.⁶

Our Canadian exports were approximately 4 times the level of production of the proposed cement plant in 2018. Consequently, it is clear that this cement plant is not essential and not needed to support our Canadian infrastructure and construction industries.

¹ Québec déçoit l'Association du Ciment <https://www.tvanouvelles.ca/2014/01/30/quebec-decoit-lassociation-du-ciment> (Accessed Sept. 15, 2020)

² Libre opinion - Cimenterie à Port-Daniel : un sacrifice d'emplois <https://www.ledevoir.com/opinion/libre-opinion/399295/cimenterie-a-port-daniel-un-sacrifice-d-emplois> (Accessed Sept. 15, 2020)

³ Christopher Corriveau. 2019. Une analyse coût-bénéfice de la cimenterie de Port-Daniel-Gascon-Mémoire. Maîtrise en économique - avec mémoire. Maître ès arts (M.A.). Université Laval <https://corpus.ulaval.ca/jspui/bitstream/20.500.11794/34037/1/35047.pdf>

⁴ Colacem - Witness Statement - Christopher Lyon (Traffic) - 17September2020.pdf (Pages 58, 70)

⁵ Colacem - Witness Statement - Marc Bataille (Background) - 18September2020.pdf (page 7)

⁶ Colacem - Witness Statement - Rachel Gould (Consultation) 18Sep2020.pdf (Pages 136, 140, 233, 237)

2. Cement plants currently in operation in Canada

The most recent cement plant to be built in Canada was St. Marys Cement Inc. McInnis Plant, (Port-Daniel-Gascons in Gaspésie, QC) which started operations in 2017. According to the federal government National Pollutant Release Inventory ⁷, there were 16 operating cement plants in Canada in 2018 (Table 1).

The Lafarge Canada Inc. Spragge plant no longer produce clinker and therefore is not listed below.

Table 1. List of the 16 cement plants that were operational in Canada in 2018. ⁷

Company name	Plant name	City	Province
Lafarge Canada Inc.	Richmond Cement Plant	Richmond	BC
Lehigh Hanson Materials Ltd.	Delta Plant	Delta	BC
Lafarge Canada Inc.	Exshaw Cement Plant	Exshaw	AB
Lehigh Hanson Materials Ltd.	Edmonton Plant	Edmonton	AB
Holcim (Canada) inc.	Mississauga Cement Plant	Mississauga	ON
Federal White Cement Ltd	Woodstock Plant	Woodstock	ON
Lafarge Canada Inc.	Bath Cement Plant	Bath	ON
Lehigh Hanson Materials Ltd	Picton Plant	Picton	ON
St. Marys Cement Inc.	Bowmanville Cement Plant	Bowmanville	ON
St. Marys Cement Inc.	St. Marys Cement Plant	St. Marys	ON
Ciment Québec Inc.	Cimenterie de Saint-Basile	Saint-Basile	QC
St. Marys Cement Inc.	McInnis Plant, Port-Daniel-Gascons	Gaspésie	QC
Holcim (Canada) inc.	Usine de Joliette	Joliette	QC
Lafarge Canada Inc.	Cimenterie de Saint-Constant	Saint-Constant	QC
Lehigh Hanson Materials Ltd.	Cimenterie Kilmar	Grenville-sur-la-Rouge	QC
Lafarge Canada Inc.	Brookfield Cement Plant	Brookfield	NS

⁷ Canada - Environment and natural resources - Pollution and waste management - National Pollutant Release Inventory - Tools and resources for the National Pollutant Release Inventory data - Explore National Pollutant Release Inventory data
<https://www.canada.ca/en/environment-climate-change/services/national-pollutant-release-inventory/tools-resources-data/exploredata.html> (Accessed Sept. 15, 2020)

3. Tonnage of Canadian cement export

Currently, one third of the total Canadian cement production is exported and this trend has been increasing since 2013 (Figure 1, below). Overall, in 2018, Canada exported 4.5 million metric tonnes.

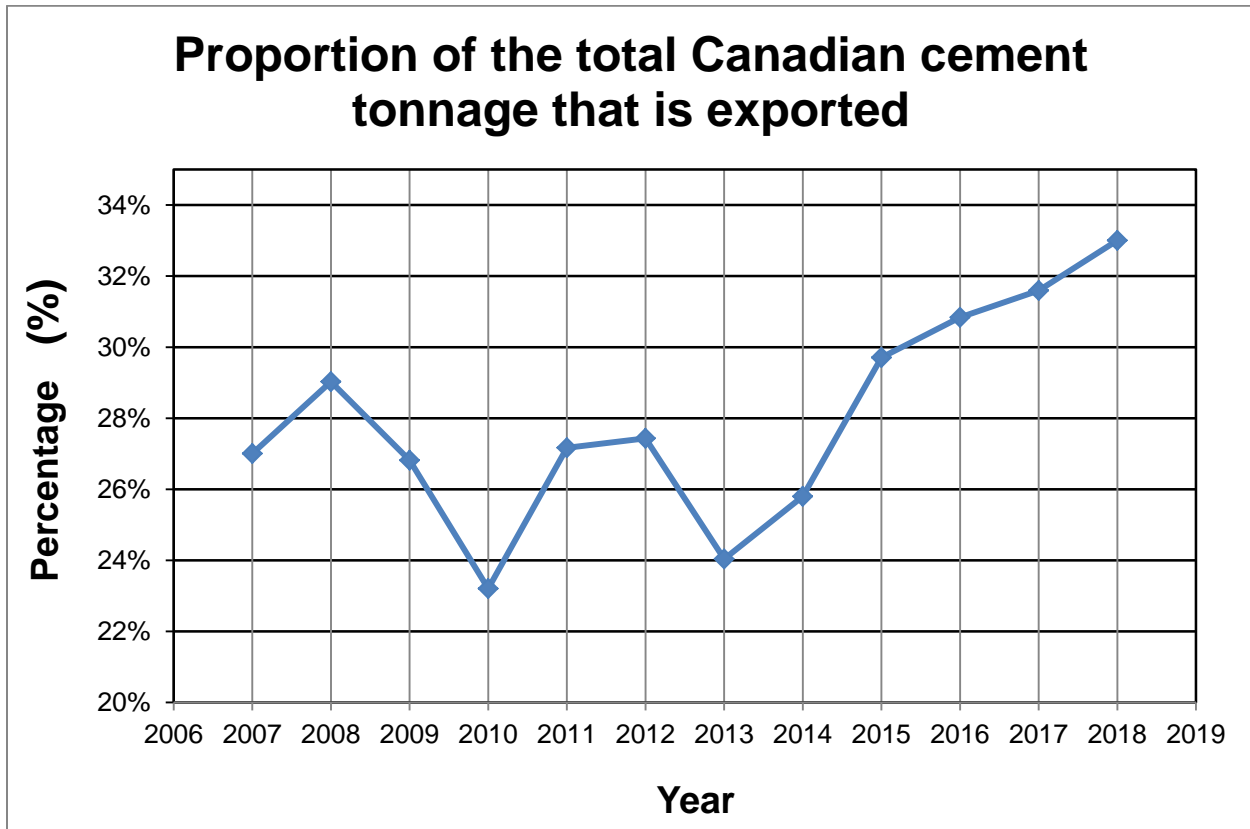


Figure 1. Graph showing the increasing trend in the proportion of cement produced in Canada that is exported. Values were compiled using Table 3 and Table 4 in Section 6 of this Appendix.

According to the Cement Association of Canada and some cement company members, the cement industry was operating at approximately 60 % capacity in 2014 and new cement plants were not required^{8 9}. This is confirmed in a Master's thesis from Laval University produced in 2019¹⁰.

⁸ Québec déçoit l' Association du Ciment

<https://www.tvanouvelles.ca/2014/01/30/quebec-decoit-lassociation-du-ciment> (Accessed Sept. 15, 2020)

⁹ Libre opinion - Cimenterie à Port-Daniel : un sacrifice d'emplois

<https://www.ledevoir.com/opinion/libre-opinion/399295/cimenterie-a-port-daniel-un-sacrifice-d-emplois> (Accessed Sept. 15, 2020)

¹⁰ Christopher Corriveau. 2019. Une analyse coût-bénéfice de la cimenterie de Port-Daniel-Gascon-Mémoire.

Maîtrise en économie - avec mémoire. Maître ès arts (M.A.). Université Laval

<https://corpus.ulaval.ca/jspui/bitstream/20.500.11794/34037/1/35047.pdf>

4. Value of Canadian cement trade balance (net export)

Depending on the source, Canada was ranked either the 4th or 6th biggest exporter of cement in value in the world in 2018.^{11 12}

According to the federal government, Canada has been a net exporter of cement for a very long time. In 2018, Canada was a net exporter of cement with a balance of \$ 478 million in cement.¹³

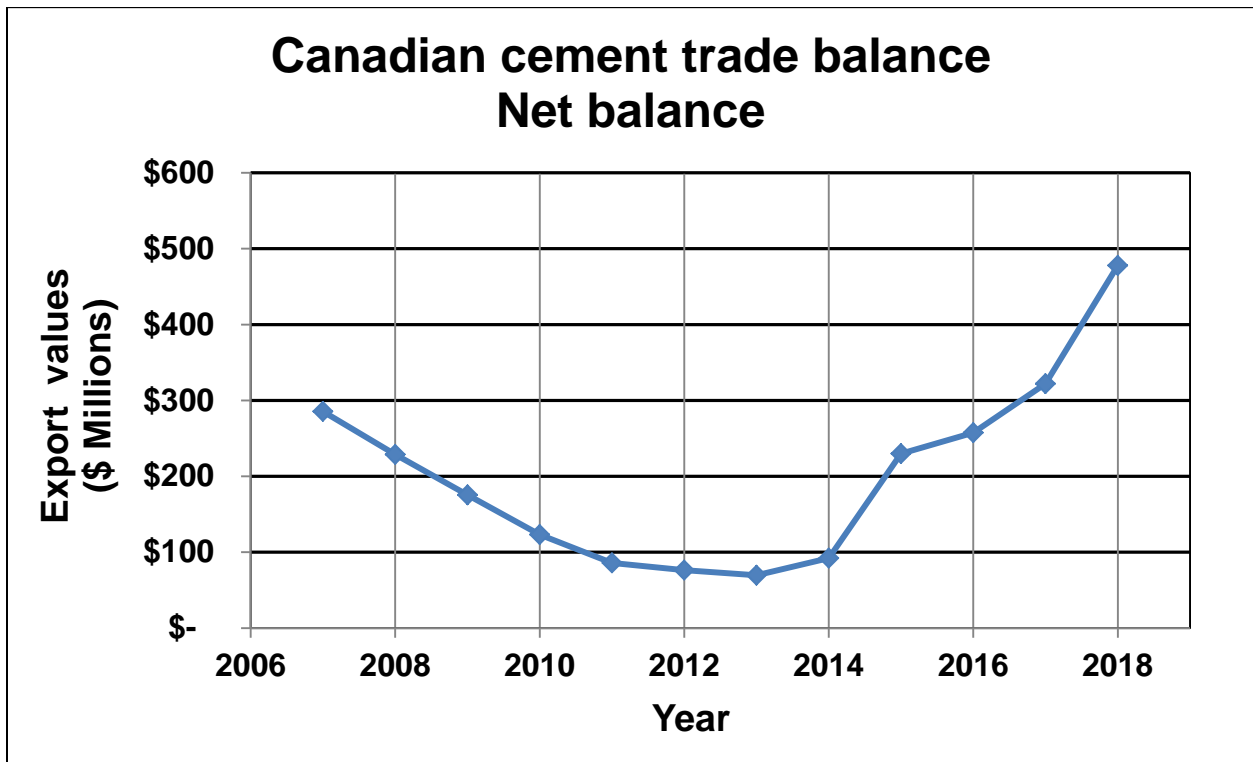


Figure 2. Graph showing the increasing trend in the value of our cement production exported out of Canada. Based on values from Table 5 in Section 6 of this Appendix.

¹¹ Cement Exports by Country, May 16, 2020 by Daniel Workman
<http://www.worldstopexports.com/cement-exports-by-country/> (Accessed Sept. 15, 2020)

¹² Cement. The observatory of economic complexity
<https://oec.world/en/profile/hs92/cement> (Accessed Sept. 15, 2020)

¹³ Government of Canada - Trade Data Online
<https://www.ic.gc.ca/eic/site/tdo-dcd.nsf/eng/home> (Accessed Aug. 13, 2021)

5. Estimated value per metric tonne of cement exported

This value per metric tonne of cement powder is needed in order to assess economic benefits and losses when considering a new cement plant's contribution to the Canadian economy.

The calculated value in Table 2 is considered as being approximate because the price per tonne is different depending on the type of cement exported but it can be used for the purposes of this petition.

Table 2. Estimate of the price per tonne of cement powder exported.

Year	Total quantity of cement exported ¹	Total value of cement exported ²	Average price per tonne of cement powder ³
	(metric tonne)	(\$ millions)	(\$/tonne)
2007	4,071,613	\$377.677	\$92.76
2008	3,968,895	\$330.907	\$83.38
2009	2,945,684	\$279.677	\$94.94
2010	2,884,656	\$255.196	\$88.47
2011	3,260,455	\$240.922	\$73.89
2012	3,419,506	\$264.826	\$77.45
2013	2,791,318	\$266.487	\$95.47
2014	3,064,493	\$301.694	\$98.45
2015	3,614,522	\$429.532	\$118.84
2016	3,605,709	\$448.070	\$124.27
2017	4,014,220	\$508.725	\$126.73
2018	4,473,478	\$627.637	\$140.30

¹ Values were taken from Table 4 in Section 6 below.

² Values were taken from Table 5 in Section 6 below.

³ Values were calculated by dividing the total value of cement exported by the total quantity of cement exported.

6. Raw data tables from various sources within the Canadian government

2018 is the most recent year for which Statistics Canada has made production and export mass data available.

Table 3. Annual production of cement in Canada, in metric tonnes.¹⁴

Cement products^{3, 4}	2007	2008	2009	2010	2011	2012
	Metric tonnes					
Total, cement products	15,077,575	13,672,440	10,985,142	12,431,100	12,001,357	12,464,858
Portland cement	14,323,527	12,991,480	10,547,200	11,861,434	11,417,121	11,878,264
Masonry and other cement	754,048	680,960	437,942	569,666	584,236	586,594
Clinker	14,157,642	2,797,968	9,875,736	11,018,883	11,099,560	12,154,555

Table 3 (Continued for years 2013 to 2018)

Cement products^{3, 4}	2013	2014	2015	2016	2017	2018
	Metric tonnes					
Total, cement products	11,611,352	11,878,903	12,166,622	11,692,825	12,705,518	13,554,063
Portland cement	11,009,895	11,315,632	11,775,621	11,432,849	12,339,511	13,198,843
Masonry and other cement	601,457	563,271	391,001	259,976	366,007	355,220
Clinker	10,976,834	10,930,390	11,514,476	11,383,173	12,411,969	13,183,541

³ Includes sales of cement purchased from other cement companies. Excludes inter-company shipments.

⁴ As reported by respondents to this survey. For total exports, please contact the International Trade Division at 1-800-294-5583 or by email at statcan.itdtrade-dcicommerce.statcan@canada.ca.

¹⁴ Statistics Canada. Table 16-10-0009-01 Annual Survey of Cement, production and exports
<https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=1610000901&pickMembers%5B0%5D=2.1&cubeTimeFrame.startYear=2007&cubeTimeFrame.endYear=2018&referencePeriods=20070101%2C20180101>

Table 4. Annual exports of cement out of Canada, in metric tonnes.¹⁵

Cement products^{3, 4}	2007	2008	2009	2010	2011	2012
	Metric tonnes					
Total, cement products	4,071,613	3,968,895	2,945,684	2,884,656	3,260,455	3,419,506
Portland cement	4,013,598	3,918,859	2,912,330	2,861,461	3,240,418	3,389,974
Masonry and other cement	58,015	50,036	33,354	23,195	20,037	29,532

Table 4 (Continued for years 2013 to 2018)

Cement products^{3, 4}	2013	2014	2015	2016	2017	2018
	Metric tonnes					
Total, cement products	2,791,318	3,064,493	3,614,522	3,605,709	4,014,220	4,473,478
Portland cement	2,768,186	x	3,602,833	3,592,209	3,997,902	4,459,314
Masonry and other cement	23,132	x	11,689	13,500	16,318	14,164

x suppressed to meet the confidentiality requirements of the Statistics Act

³ Includes sales of cement purchased from other cement companies. Excludes inter-company shipments.

⁴ As reported by respondents to this survey. For total exports, please contact the International Trade Division at 1-800-294-5583 or by email at statcan.itdtrade-dcicommerce.statcan@canada.ca.

¹⁵ Statistics Canada. Table 16-10-0009-01 Annual Survey of Cement, production and exports
<https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=1610000901&pickMembers%5B0%5D=2.2&cubeTimeFrame.startYear=2007&cubeTimeFrame.endYear=2018&referencePeriods=20070101%2C20180101>

Table 5. Canadian trade balances for: Hs 252321 - white (portland) cement (whether or not artificially coloured); HS 252329 - Portland Cement (Other than White Cement); HS 252330 - Aluminous Cement (Ciment Fondu); HS 252390 - Hydraulic Cements Nes; and their total values combined. Export values are for all countries (total) for the period from 2007 to 2018.¹⁶

HS 252321 - White (Portland) Cement (Whether or Not Artificially Coloured)							
		2007	2008	2009	2010	2011	2012
All Countries (Total)	Total Exports	\$50,563	\$43,975	\$40,202	\$37,280	\$38,306	\$43,472
	Total Imports	\$3,471	\$4,345	\$1,729	\$4,863	\$10,755	\$10,455
	Trade Balance	\$47,092	\$39,630	\$38,473	\$32,417	\$27,551	\$33,017
<i>Values in thousands of canadian dollars</i>							
HS 252329 - Portland Cement (Other than White Cement)							
		2007	2008	2009	2010	2011	2012
All Countries (Total)	Total Exports	\$322,500	\$281,878	\$233,406	\$213,736	\$199,482	\$217,008
	Total Imports	\$67,920	\$77,833	\$78,831	\$98,992	\$113,926	\$136,784
	Trade Balance	\$254,580	\$204,046	\$154,575	\$114,744	\$85,556	\$80,224
<i>Values in thousands of canadian dollars</i>							
HS 252330 - Aluminous Cement (Ciment Fondu)							
		2007	2008	2009	2010	2011	2012
All Countries (Total)	Total Exports	\$38	\$122	\$11	\$40	\$53	\$208
	Total Imports	\$7,864	\$7,691	\$8,611	\$8,264	\$8,413	\$8,681
	Trade Balance	\$(7,827)	\$(7,569)	\$(8,600)	\$(8,224)	\$(8,360)	\$(8,474)

¹⁶ Innovation, Science and Economic Development Canada
https://www.ic.gc.ca/app/scr/tdst/tdo/crtr.html?grouped=INDIVIDUAL&searchType=KS_CS&naArea=9999&countryList=ALL&toFromCountry=CDN&reportType=TB&customYears=2018%7C2017%7C2016%7C2015%7C2014%7C2013%7C2012%7C2011%7C2010%7C2009%7C2008%7C2007&timePeriod=%7CCustom+Years¤cy=CDN&productType=HS6&hSelectedCodes=%7C252321%7C252329%7C252330%7C252390&runReport=true

		<i>Values in thousands of canadian dollars</i>					
HS 252390 - Hydraulic Cements Nes							
		2007	2008	2009	2010	2011	2012
All Countries (Total)	Total Exports	\$4,577	\$4,932	\$6,058	\$4,140	\$3,081	\$4,138
	Total Imports	\$12,850	\$12,258	\$15,075	\$19,786	\$22,008	\$32,522
	Trade Balance	\$(8,273)	\$(7,326)	\$(9,017)	\$(15,646)	\$(18,926)	\$(28,384)
		<i>Values in thousands of canadian dollars</i>					
Sub-total							
		2007	2008	2009	2010	2011	2012
	Total Exports	\$377,677	\$330,907	\$279,677	\$255,196	\$240,922	\$264,826
	Total Imports	\$92,105	\$102,127	\$104,247	\$131,905	\$155,101	\$188,442
	Trade Balance	\$285,572	\$228,780	\$175,430	\$123,291	\$85,821	\$76,384
		<i>Values in thousands of canadian dollars</i>					

Table 5 (Continued for years 2013 to 2018)

HS 252321 - White (Portland) Cement (Whether or Not Artificially Coloured)							
		2013	2014	2015	2016	2017	2018
All Countries (Total)	Total Exports	\$46,852	\$48,853	\$61,069	\$60,793	\$51,385	\$53,945
	Total Imports	\$11,202	\$10,563	\$14,078	\$11,808	\$12,137	\$4,511
	Trade Balance	\$35,651	\$38,290	\$46,991	\$48,985	\$39,248	\$49,434
		<i>Values in thousands of canadian dollars</i>					
HS 252329 - Portland Cement (Other than White Cement)							
		2013	2014	2015	2016	2017	2018

All Countries (Total)	Total Exports	\$212,098	\$235,888	\$342,603	\$364,124	\$410,678	\$517,931
	Total Imports	\$145,791	\$156,672	\$139,659	\$124,026	\$123,077	\$89,718
	Trade Balance	\$66,307	\$79,216	\$202,945	\$240,098	\$287,601	\$428,213
<i>Values in thousands of canadian dollars</i>							
HS 252330 - Aluminous Cement (Ciment Fondu)							
		2013	2014	2015	2016	2017	2018
All Countries (Total)	Total Exports	\$2,432	\$8,000	\$9,700	\$8,694	\$8,855	\$10,374
	Total Imports	\$9,416	\$11,547	\$13,001	\$13,720	\$16,037	\$16,905
	Trade Balance	\$(6,985)	\$(3,547)	\$(3,301)	\$(5,027)	\$(7,182)	\$(6,531)
<i>Values in thousands of canadian dollars</i>							
HS 252390 - Hydraulic Cements Nes							
		2013	2014	2015	2016	2017	2018
All Countries (Total)	Total Exports	\$5,105	\$8,953	\$16,160	\$14,459	\$37,807	\$45,387
	Total Imports	\$30,457	\$30,611	\$32,977	\$40,961	\$35,543	\$38,722
	Trade Balance	\$(25,352)	\$(21,659)	\$(16,817)	\$(26,501)	\$2,264	\$6,665
<i>Values in thousands of canadian dollars</i>							
Sub-total							
		2013	2014	2015	2016	2017	2018
	Total Exports	\$266,487	\$301,694	\$429,532	\$448,070	\$508,725	\$627,637
	Total Imports	\$196,865	\$209,394	\$199,715	\$190,516	\$186,793	\$149,856
	Trade Balance	\$69,621	\$92,301	\$229,817	\$257,555	\$321,932	\$477,781
<i>Values in thousands of canadian dollars</i>							

Appendix 3

Potential adverse effects caused by the pollutants emitted by the proposed cement plant and its operations

1. Summary

The proposed cement plant will be emitting approximately 20 tonnes of pollutants a day from its kiln smokestack which will contain 72 different pollutants.

In the area where the proposed cement plant will be built, the four most important pollutants, in mass, that will be smokestack emitted will be:

- Suspended particulate matter which will increase 4 times the current area emissions
- Nitrogen Oxides (NO_x) which will increase 16 times the current area emissions
- Sulfur Oxides (SO_x) which will increase 44 times the current area emissions
- Carbon monoxide (CO) which will increase 41 times the current area emissions

Overall, the 72 different pollutants that will be emitted by Colacem's kiln smokestack can potentially have a huge impact on the environment and on the population's health.

Several of these pollutants are either:

- carcinogenic or suspected of being so
- or classified as poisons
- or toxic or harmful to aquatic organism
- or classified as being possibly hazardous to the environment
- and some of these can also accumulate in plants or animals (food chain)
- or they could persist in the environment for years

Dioxins and furans

Among these pollutants, dioxins and furans are of grave concern. They are some of the most toxic industrial chemicals known to science.

It is worrisome that, had the proposed cement plant operated in 2017:

- it would have emitted 13 % of all the smokestack emitted dioxins and furans from all industries in Ontario.
- it would have been the 4th largest smokestack emitter of dioxins and furans in all of Ontario
- it would have ranked 9th for all of Canada out of 123 dioxins smokestack emitters.

This means that this region would have been among the most polluted area by stack emitted dioxins and furans in all of Ontario and Canada by some of the most dangerous chemicals.

Compared with the cement plants already operating in Canada, if the proposed cement plant had been in operation in 2016 and 2017:

- It would have emitted 13 to 32 times more than the average reported by the 13 Canadian cement plants that emitted dioxins and furans in 2016 and 2017, respectively.
- It would have been the **biggest** emitter of dioxins and furans compared with all the other cement plants in Canada in 2016 or 2017
- In 2017, it would have emitted more than twice the total of all other cement plants together.

The threats posed by dioxins became widely known because of Agent Orange, an herbicide and defoliant used in the Vietnam War. They were also contaminants of transformer's oil (PCB) last century.

- Dioxins are extremely persistent environmental pollutants
- Dioxins accumulate in the food chain
- Dioxins are highly toxic and can cause cancer and other health problems

Acid rain

The proposed cement plant will be emitting a combined mass of 10.72 tonnes a day of nitrogen oxides (NO_x) and of sulfur oxides (SO_x) for a total of 3,570 tonnes a year. These emissions will add up to 178,500 metric tonnes of potential acid rain pollutants for the 50 years that the cement plant will be in operation. This represents an extremely high risk of acid rain for the environment.

Acid rain causes damages to the environment, to water bodies, to forests, and to soils. It was the major factor in the decline of sugar maples last century. It can also cause a severe thinning of eggshells or even their complete disappearance in wild birds.

Another devastating effect of acid rain is that it acidifies lakes and streams. Once acidified, lakes and streams become unsuitable for fish, it decreases species richness, community composition, and biodiversity in freshwater ecosystems.

Under our local climate, acid rain can also cause “episodic acidification” when the snow melts or after heavy rain. This can cause a surge in acid water washing down into rivers and lakes, severely disturbing ecosystems.

Nitrogen fertilizer

Nitrogen oxides, when not converted to nitric acid, can act as a nitrogen fertilizer to freshwater ecosystems. This nitrogen enrichment causes the eutrophication of rivers and lakes by stimulating excessive plant and algae growth (algal blooms). When that plant material decays, it depletes the oxygen in the water, killing aquatic life (fish and plants). Eutrophication leads to decreases in the number of different fish species and in the number of fish, and potentially to the disappearance of fish and plants.

When this NO_x, as a nitrogen fertilizer, lands on the soil of forests, bogs, or of other ecosystems, it can drastically alter plant populations. It has the potential to promote the growth of some plant species to the detriment of other species, breaking an equilibrium that an ecosystem might have taken centuries or more to reach. This is a very serious threat to all the conservation areas in our region, including the Ottawa River.

VOC, PAH and phthalates

Other type of pollutants that will be emitted by the kiln smokestack that can have a negative impact on the health of the local residents, on the wildlife and on the environment are:

- Volatile organic compound (VOC) of which the proposed cement plant will be emitting 15 different VOC compounds. Some of which are dangerous to human health or cause harm to the environment
- Polycyclic aromatic hydrocarbon (PAH). The proposed cement plant will be emitting 15 different PAH compounds. Cancer is a primary human health risk of exposure to PAHs and it has been linked to cardiovascular disease and poor foetal development
- The proposed cement plant will be emitting 2 different phthalates. One of these is considered as a Probable Human Carcinogen and that there is sufficient evidence of carcinogenicity in animals. It is also considered as an endocrine disruptor. The other phthalate is a suspected endocrine disruptor in animals.

Persistent pollutants and bio-accumulation

Some of the pollutants could persist in our environment for some time and eventually accumulate over the years to reach levels that could be dangerous and unsafe in our soils and waterways.

Unfortunately, there could also be a more insidious way through which these pollutants could harm the environment and our food chain. It could be by contaminating the food supply chain.

There are 15 pollutants that will be emitted by Colacem that can be bio-accumulated and that are toxic or carcinogenic. They have the potential to be bio-accumulated in plants, milk, fish, meat and eggs. The full list along with their toxicity is presented in Section 3.6 below. Thereafter, they could eventually end up in the human food chain.

Table of pollutants that will be emitted by the proposed cement plant that are known to be dangerous and that bio-accumulate in plant, fish, meat, and the environment.

Organic pollutants	Inorganic pollutants
Benzo(a)anthracene	Barium
Benzo(a)pyrene	Lead
Benzo(k)fluoranthene	Mercury
Biphenyl	Selenium
Bis(2-ethylhexyl) phthalate	Thallium
Chrysene	
Dibenz(a,h)anthracene	
Dioxins and Furans (TEQ)	
Indeno(1,2,3-cd)pyrene	
Pyrene	

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2. Introduction

Overall there will be a total 96 different pollutants that will be emitted either by the kiln smokestack or from fugitive emissions from raw materials. Appendix 1 did cover the identification of all the pollutants that would be emitted. This appendix covers the potential adverse effects and the risks caused by these pollutants on human health, on wildlife and on the environment.

3. Proposed cement plant's pollutant emissions in the region

The proposed cement plant will be the major polluter in this region. The quantity and the number of different pollutants in our region will seriously increase. Many of the 95 pollutants that Colacem will emit are not currently present here. A 96th pollutant is ozone which is the result of photochemical reactions between NO_x and volatile organic compounds (VOCs) in the atmosphere, both of which will be emitted from the Colacem proposed cement plant.

3.1 Emissions from the kiln smokestack

There will be 72 pollutants emitted through Colacem's kiln smokestack. The 4 most important in mass are plotted in Figure 1 below.

In total, Colacem will emit approximately 20 metric tonnes a day of pollutants (6,660 metric tonnes a year) from the kiln smokestack. The four most important in quantity are presented in Figure 1 below. They represent a total of 18.8 tonnes a day. The other pollutants emitted from the kiln smokestack will add another metric tonne a day.

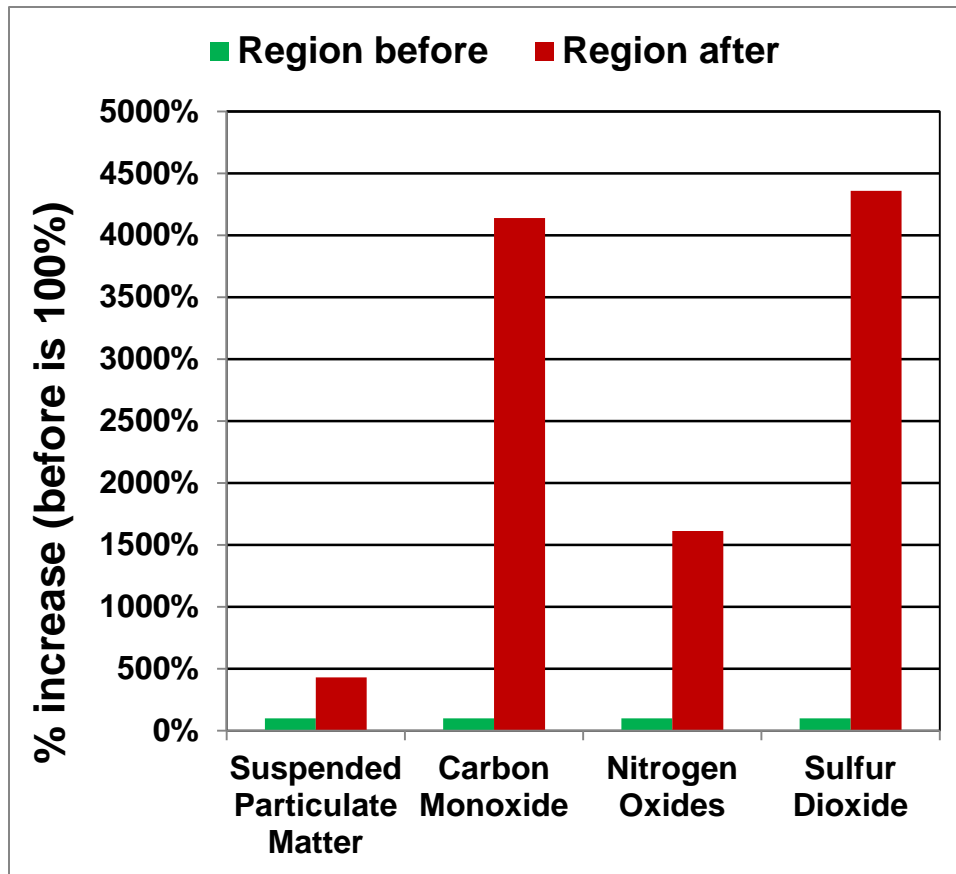


Figure 1. Smokestacks emissions increase in the area, in %, that would have been emitted to the atmosphere in our region if the proposed cement plant had been operational in 2017 (data for Colacem from Appendix 1, Section 4.9.1). Region before is set at 100% for each level of pollutant, using Ivaco smokestack emissions for 2017 as the base line.¹

¹ National Pollutant Release Inventory (NPRI)- Explore National Pollutant Release Inventory data <https://www.canada.ca/en/environment-climate-change/services/national-pollutant-release-inventory/tools-resources-data/exploredata.html>

Table 1. List of the 72 pollutants that will be emitted from the kiln smokestack.²

Inorganic pollutants	Organic pollutants
SPM ^{A B}	Acenaphthylene
PM ₁₀ ^C	Acetone
PM _{2.5}	Benzaldehyde
Aluminium	Benzene
Ammonia	Benzo(a)anthracene
Ammonium	Benzo(a)pyrene
Arsenic	Benzo(b)fluoranthene
Barium	Benzo(g,h,i)perylene
Beryllium	Benzo(k)fluoranthene
Cadmium	Benzoic acid
Calcium Oxide	Biphenyl
Carbon monoxide ^B	Bis(2-ethylhexyl)phthalate
Chloride	Bromomethane
Chromium	C3 benzenes
Copper	C4 benzenes
Hydrogen Chloride	C6 benzenes
Hydrogen Fluoride	Carbon disulfide
Iron	Chlorobenzene
Lead	Chloromethane
Manganese	Chrysene
Mercury	Dibenz(a,h)anthracene
Nitrate	Di-n-butylphthalate
Nitrogen oxide ^B	Dioxins and furans
Potassium	Ethylbenzene
Selenium	Fluoranthene
Silver	Fluorene
Sodium	Formaldehyde
Sulfate	Freon 113
Sulfur dioxide ^B	Indeno(1,2,3-cd)pyrene
Sulfur trioxide	Methyl ethyl ketone
Thallium	Methylene chloride
Titanium	Methylnaphthalene
Zinc	Naphthalene
	Phenanthrene
	Phenol
	Pyrene
	Styrene
	Toluene
	Xylenes

^A SPM stands for the total amount of suspended particulate matter. It includes the values for PM₁₀ and PM_{2.5}

^B The pollutants in a blue cell are also in Figure 1.

^C PM₁₀ stands for particulate matter equal to or smaller than 10 micrometres (microns), which also includes the values for PM_{2.5} (which stands for particulate matter equal to or smaller than 2.5 micrometres (microns))

² Colacem - Witness Statement - Sean Capstick (Air) 18Sep2020.pdf (Page 102, 227-228, 246, 287, 333-334, 366)

3.2 Fugitive emissions from raw materials

List of the 41 different pollutants reported to be present in one or several of the 9 main sources of raw material that will be used by the proposed cement plant.³

Product	Contaminant	Product	Contaminant
Limestone	SPM	Petcoke	SPM
Limestone	Calcium carbonate, limestone	Petcoke	Antimony
Limestone	Magnesium carbonate	Petcoke	Arsenic
Limestone	Crystalline Silica	Petcoke	Barium
		Petcoke	Beryllium
Silica	SPM	Petcoke	Cadmium
Silica	Aluminum oxide	Petcoke	Chromium
Silica	Ferric oxide	Petcoke	Cobalt
Silica	Titanium dioxide	Petcoke	Copper
Silica	Silicon dioxide	Petcoke	Lead
		Petcoke	Manganese
Bauxite	SPM	Petcoke	Mercury
Bauxite	Aluminum oxide	Petcoke	Nickel
Bauxite	Calcium oxide	Petcoke	Selenium
Bauxite	Ferric oxide	Petcoke	Silver
Bauxite	Potassium oxide	Petcoke	Thallium
Bauxite	Sodium oxide	Petcoke	Vanadium
Bauxite	Titanium dioxide	Petcoke	Zinc
Bauxite	Silicon dioxide	Petcoke	Tellurium
Gypsum	SPM	Iron Oxide	SPM
Gypsum	Calcium sulfate dihydrate	Iron Oxide (ore)	Silicon Dioxide
Gypsum	Crystalline Silica	Iron Oxide (ore)	Calcium Oxide
		Iron Oxide (ore)	Ferric Oxide
Shale	SPM		
Shale	Antimony	Iron Steel	SPM
Shale	Arsenic	Iron Steel	Aluminum
Shale	Barium	Iron Steel	Boron
Shale	Beryllium	Iron Steel	Chromium
Shale	Cadmium	Iron Steel	Copper
Shale	Chromium	Iron Steel	Ferric Oxide
Shale	Cobalt	Iron Steel	Manganese
Shale	Copper	Iron Steel	Molybdenum
Shale	Lead	Iron Steel	Nickel
Shale	Manganese	Iron Steel	Phosphorus
Shale	Mercury	Iron Steel	Sulphur
Shale	Nickel	Iron Steel	Vanadium
Shale	Selenium	Iron Steel	Titanium
Shale	Silver	Iron Steel	Silicon
Shale	Thallium	Iron Steel	Carbon
Shale	Vanadium	Iron Steel	Tin
Shale	Zinc		
Shale	Tellurium	Silica Fume	SPM
		Silica Fume	PM10
		Silica Fume	Silica Fume
		Silica Fume	Crystalline

³ Colacem - Witness Statement - Sean Capstick (Air) 18Sep2020.pdf (Page 445-446)

3.3 Details on some of the major pollutants

The following pollutants are presented and discussed in more details:

- Dioxins and furans
- PM₁₀
- Nitrogen oxides (NO_x)
- Sulfur oxides (SO_x)
- Carbon monoxide
- Particulate matter
- Acid rain (combination of NO_x and SO_x)

3.3.1 Dioxins and furans

It is worrisome that, had the proposed cement plant operated in 2017:

- it would have emitted 13 % of all the stack emitted dioxins and furans from all industries in Ontario⁴.
- it would have been the 4th largest stack emitter of dioxins and furans in all of Ontario⁴
- it would have ranked 9th for all of Canada out of 123 dioxins stack emitters.⁴

This is of grave concern. This means that this region would have been among the most polluted area by stack emitted dioxins and furans in all of Ontario and Canada by some of the most dangerous chemicals.

According to Colacem reports, the proposed cement plant will be emitting 0.536 g TEQ (ET)/year of dioxins and furans per year through its stack.⁵ The value has been corrected to take into account that Colacem used US short tons in their reports instead of metric tonnes.

Nationally, if the proposed cement plant had been in operation in 2016 and 2017:

- It would have emitted 13 to 32 times more than the average reported by the 13 Canadian cement plants that emitted dioxins and furans in 2016 and 2017, respectively (Table 2)⁴.
- It would have been the **biggest** emitter of dioxins and furans compared with all the other cement plants in Canada in 2016 or 2017
- In 2017, it would have emitted more than twice the total of all other cement plants together.

Why should we be concerned?

Dioxins are considered to have significant toxicity and can cause diseases.⁶

⁴ National Pollutant Release Inventory (NPRI)- Explore National Pollutant Release Inventory data <https://www.canada.ca/en/environment-climate-change/services/national-pollutant-release-inventory/tools-resources-data/exploredata.html>

⁵ Colacem - Witness Statement - Sean Capstick (Air) 18Sep2020.pdf (Page 279, 527, 567)

Dioxins and furans are some of the most toxic industrial chemicals known to science. They include TCDD⁷ and certain PCBs⁸. The threats posed by dioxins became widely known because of Agent Orange, an herbicide and defoliant used in the Vietnam War. They were also contaminants of transformer's oil (PCB) last century.

- Dioxins are a group of chemically-related compounds that are **extremely persistent** environmental pollutants
- Dioxins accumulate in the food chain
- Dioxins are highly toxic and can cause reproductive and developmental problems, damage the immune system, interfere with hormones and can cause cancer

Table 2. List of the 13 Canadian cement plants that smokestack emitted dioxins and furans in 2016 and in 2017 and the quantity emitted. ⁹ Lafarge Canada Inc. stopped making clinker at their Kamloops plant in 2016 and Ciment McInnis only started partial operations in 2017.

Company name	Plant name	Stack Emissions Dioxins and furans - total (g TEQ(ET)/yr)	
		2016	2017
Lehigh Hanson Materials Ltd.	Edmonton Plant	0.0035	0.0045
Lafarge Canada Inc.	Exshaw Cement Plant	0.0027	0.0013
Lafarge Canada Inc.	Richmond Cement Plant	0.0097	0.0046
Lehigh Hanson Materials Ltd.	Delta Plant	0.0023	0.0023
St. Marys Cement Inc.	Bowmanville Cement Plant	0.0308	0.0297
Lafarge Canada Inc.	Bath Cement Plant	0.0199	0.0360
St. Marys Cement Inc.	St. Marys Cement Plant	0.0073	0.0073
Federal White Cement Ltd	Woodstock Plant	0.0008	0.0007
Lafarge Canada Inc.	Cimenterie de Saint-Constant	0.4310	0.0556
CRH Canada Group Inc.	Usine de Joliette	0.0145	0.0185
Ciment Québec Inc.	Cimenterie de Saint-Basile	0.0105	0.0104
Lehigh Hanson Materials Ltd.	Cimenterie Kilmar	0.0080	0.0018
Lafarge Canada Inc.	Brookfield Cement Plant	0.0100	0.0430
Total		0.5510	0.2157
Average per cement plant		0.0424	0.0166
Colacem emissions		0.536^A	0.536

^A The original value provided by Colacem was 0.486 but, throughout their reports, they consistently underestimated kiln emissions by 10.23%, having used US short tons instead of metric tonnes. (See Appendix 4, Section 3.1).

⁶ Dioxins and their effects on human health. World Health Organization. <http://www.who.int/en/news-room/fact-sheets/detail/dioxins-and-their-effects-on-human-health>.

⁷ Dioxins. National Institute of Environmental Health Sciences. <https://www.niehs.nih.gov/health/topics/agents/dioxins/index.cfm>

⁸ Learn about dioxin. <https://www.epa.gov/dioxin/learn-about-dioxin>

⁹ National Pollutant Release Inventory (NPRI)- Explore National Pollutant Release Inventory data <https://www.canada.ca/en/environment-climate-change/services/national-pollutant-release-inventory/tools-resources-data/exploredata.html>

3.3.2 Particulate matter pollution

The proposed cement plant will be emitting 690 kilograms of suspended particulate matter (SPM) a day. This represents 230 metric tonnes a year of suspended particulate matter and 11,500 tonnes for the 50 years that the cement plant will be in operation.

Suspended particulate matters are microscopic solid or liquid matter suspended in the atmosphere. This dust can be very detrimental to the vegetation.

Climates are greatly affected by particulate matter and they contribute to the rise in global temperature.¹⁰¹¹

Particulate matter can be very detrimental to the vegetation. Once deposited on leaf surface, it alters its optical properties, particularly the surface reflectance in the visible and short wave infrared radiation range, it also alters the amount of light available for photosynthesis, and interferes with the diffusion of gases into and out of leaves.^{12 13 14} All of which decrease growth and development of vegetation.¹⁰

When particulate matter alters optical properties of snow-covered surfaces, it can lead to vegetation surface temperatures 4 to 11.5 C above ambient environments. This can kill trees if they start to grow in the winter or too early in the spring¹⁰, which can cause changes in structure and composition of plant community, and changes in grazing patterns of animals.^{12 13 14}

There has been reduction in growth of the dominant trees owing to crust formation on leaves which reduces photosynthesis and bringing premature leaf fall and destruction of leaf tissues.¹²

It can also cause health issues and deaths in animals.¹⁵

¹⁰ National Research Council 2010. Global Sources of Local Pollution: An Assessment of Long-Range Transport of Key Air Pollutants to and from the United States. Washington, DC: The National Academies Press.<https://doi.org/10.17226/12743>.

¹¹ Doley, David. (2006). Airborne particulates and vegetation: Review of physical interactions. *Clean Air Environ. Quality*. 40:36-42.

¹² K. Mohapatra and S.K. Biswal. 2014. Effect of particulate matter (pm) on plants, climate, ecosystem and human health. *International Journal of Advanced Technology in Engineering and Science*. Volume 2:118-129.

¹³ H. Bhattacharjee et al. 1999. *Particulate Matter in New Jersey*. Woodrow Wilson School of Public and International Affairs Princeton University Princeton, NJ. 91 pages

¹⁴ A. Jimoda. 2012. Effects of particulate matter on human health, the ecosystem, climate and materials: a review. *Facta Universitatis Series: Working and Living Environmental Protection* Vol. 9: 27 - 44.

¹⁵ Jonathan E. Thompson, . 2018. Airborne Particulate Matter: Human Exposure & Health Effects. *Journal of Occupational and Environmental Medicine*. 60:392-423

According to the EPA, particles (particulate matter), depending on their chemical composition, may:

- make lakes and streams acidic,
- change the nutrient balance in large river basins,
- deplete the nutrients in soil,
- damage sensitive forests,
- affect the diversity of ecosystems,
- contribute to acid rain effects.¹⁶

3.3.3. PM10 pollution

The proposed cement plant will emit 350 kilograms of PM₁₀ every day and 118 metric tonnes a year. The proposed cement plant is expected to remain active for at least 50 years. This means that it would emit 5,328 metric tonnes during that period.

PM₁₀ refers to particulate matter that have diameters of 10 micrometers and smaller. PM₁₀ have specifically been classified as carcinogenic to humans by the World Health Organization in 2013.^{17 18 19}

According to the EPA, PM₁₀ pose the greatest problems because they can get deep into a person's lungs, and some may even get into a person's bloodstream.²⁰

Besides being carcinogenic, many scientific studies have linked particulate pollution exposure to a variety of problems, including:

- premature death in people with heart or lung disease
- nonfatal heart attacks
- irregular heartbeat
- aggravated asthma
- decreased lung function

¹⁶ Particulate Matter (PM) Pollution. Health and Environmental Effects of Particulate Matter (PM). Health Effects. <https://www.epa.gov/pm-pollution/health-and-environmental-effects-particulate-matter-pm>. Sept. 10, 2020

¹⁷ International Agency for Research on Cancer, 2016. Outdoor air pollution/ IARC Working Group on the Evaluation of Carcinogenic Risks to Humans. IARC monographs on the evaluation of carcinogenic risks to humans ; volume 109. 454 pages

¹⁸ Hamra, G.B. et al. 2014. Outdoor Particulate Matter Exposure and Lung Cancer: A Systematic Review and Meta-Analysis. Environmental Health Perspectives, volume 122, pages 906-911.

¹⁹ International Agency for Research on Cancer. World Health Organization. Press Release No. 221. Outdoor air pollution a leading environmental cause of cancer deaths. 4 pages

²⁰ Particulate Matter (PM) Pollution. Health and Environmental Effects of Particulate Matter (PM). Health Effects.

<https://www.epa.gov/pm-pollution/health-and-environmental-effects-particulate-matter-pm>

- increased respiratory symptoms, such as irritation of the airways, coughing or difficulty breathing
- shortened life span
- loss of quality of life

People with heart or lung diseases, babies, children, and older adults will be affected the most.¹⁶

3.3.4 Nitrogen Oxides (NO_x) Pollution

Among the other important pollutants, 38% of the pollutants emitted by the proposed cement plant (2,348 tonnes per year) will be NO_x (nitrogen oxides) (Appendix 1, Table 11).

Nitrogen oxides, commonly referred to as NO_x, are very serious pollutants.^{21 22}

Acid rain

Nitrogen oxides are broken down rapidly in the atmosphere by reacting with other substances commonly found in the air.²¹ The reaction of nitrogen dioxide with chemicals produced by sunlight leads to the formation of **nitric acid**, which is a major constituent of **acid rain** (Section 3.3.7 below). Nitrogen dioxide also reacts with sunlight, which leads to the formation of **ozone** and **smog** conditions in the air we breathe. Small amounts of nitrogen oxides may evaporate from water, but most of it will react with water and form nitric acid. When released in the soil the same phenomenon might occur.

According to the EPA, NO₂ and other NO_x interact with water, oxygen and other chemicals in the atmosphere to form acid rain. Acid rain harms wildlife and sensitive ecosystems such as lakes and forests (see section 3.3.7 below on acid rain). NO_x in the atmosphere contributes to nutrient pollution of ecosystems.²³

The proposed cement plant will be emitting 7.05 metric tonnes a day of nitrogen oxides (NO_x). This is a huge volume of what is a potential eutrophication pollutant.²⁴

²¹ Nitrogen Oxides. 2002. Division of Toxicology ToxFAQs, Agency for Toxic Substances and Disease Registry, U.S. Department of Health and Human Services. 2 pages.

²² Nitrogen Oxides (NO_x), Why and How They Are Controlled. November 1999. Technical Bulletin EPA-456/F-99-006R. Prepared by Clean Air Technology Center (MD-12). Information Transfer and Program Integration Division. Office of Air Quality Planning and Standards. U.S. Environmental Protection Agency. Research Triangle Park, North Carolina 27711. 57 pages. <https://www3.epa.gov/ttn/catc/dir1/fnoxdoc.pdf>

²³ Nitrogen Dioxide (NO₂) Pollution <https://www.epa.gov/no2-pollution/basic-information-about-no2>. Sept. 10, 2020

²⁴ Integrated Science Assessment for Oxides of Nitrogen, Oxides of Sulfur, and Particulate Matter—Ecological Criteria. 2017. National Center for Environmental Assessment-RTP Division, Office of Research and Development, U.S. Environmental Protection Agency, Research Triangle Park, NC. 1,412 pages.

Nitrogen fertilizer

Nitrogen oxides, when not converted to nitric acid, can alter freshwater biogeochemistry and act as a nitrogen fertilizer to freshwater ecosystems. This nitrogen enrichment causes the eutrophication of rivers and lakes by stimulating excessive plant and algae growth (algal blooms). When that plant material decays, it depletes the oxygen in the water, killing aquatic life (fish and plants). Eutrophication leads to decreases in the number of different fish species and in the number of fish, and potentially to the disappearance of fish and plants.²⁵

When this NO_x, as a nitrogen fertilizer, lands on the soil of forests, bogs, or of other ecosystems, it can drastically alter plant populations. It has the potential to promote the growth of some plant species to the detriment of other species, breaking an equilibrium that an ecosystem might have taken centuries or more to reach. This is a very serious threat to all the conservation areas in our region, including the Ottawa River.

3.3.5 Sulfur Oxides (SO_x) Pollution

Among the other important pollutants, 20% (1,224 tonnes a year) will be SO_x (sulfur oxides) which will be emitted in the atmosphere by the Colacem cement plant in L'Orignal (Appendix 1, Table 11). The proposed cement plant would increase the emissions of this pollutant 44 times more than what is currently being emitted in the region (Figure 1).

According to the EPA (US Environmental Protection Agency), sulfur dioxide (SO₂) is one of a group of gases called sulfur oxides (SO_x). All of these gases are harmful to animal health and to the environment. Sulphur dioxide is a colorless, reactive air pollutant with a strong odor. It can harm trees and plants by damaging foliage and decreasing growth. This gas can be a threat to animal health, and plant life.²⁶

Sulfur dioxide (SO₂) has a characteristic and pungent odor which is irritating, and which is associated with pulp and paper mills. It is converted into sulfuric acid in the presence of water. Sulfur dioxide emissions are a precursor to **acid rain** (sulfuric acid) and atmospheric particulates, which can harm sensitive ecosystems.^{26 27 28}

Colacem will be emitting 3.7 metric tonnes per day of sulphur dioxide. The yearly mass of these emissions will be as much and sometimes much more than what the Thurso Fortress Cellulose Spécialisée (pulp and paper mill) plant emitted between 2008 and 2017 in Thurso, Québec. This plant was called Papiers Fraser up to 2009 (Figure 2).²⁹

²⁵ U.S. Environmental Protection Agency (EPA). 2008. Integrated Science Assessment Oxides of Nitrogen and Sulfur Ecological Criteria. EPA/600/R-08/082F. 898 pages.

²⁶ Sulfur Dioxide (SO₂) Pollution. United States Environmental Protection Agency
<https://www.epa.gov/so2-pollution/sulfur-dioxide-basics>

²⁷ Sulfur Dioxide. https://en.wikipedia.org/wiki/Sulfur_dioxide

²⁸ Sulfur Dioxide, Wisconsin Department of Health Services.
<https://www.dhs.wisconsin.gov/chemical/sulfurdioxide.htm>

²⁹ National Pollutant Release Inventory (NPRI)- Explore National Pollutant Release Inventory data

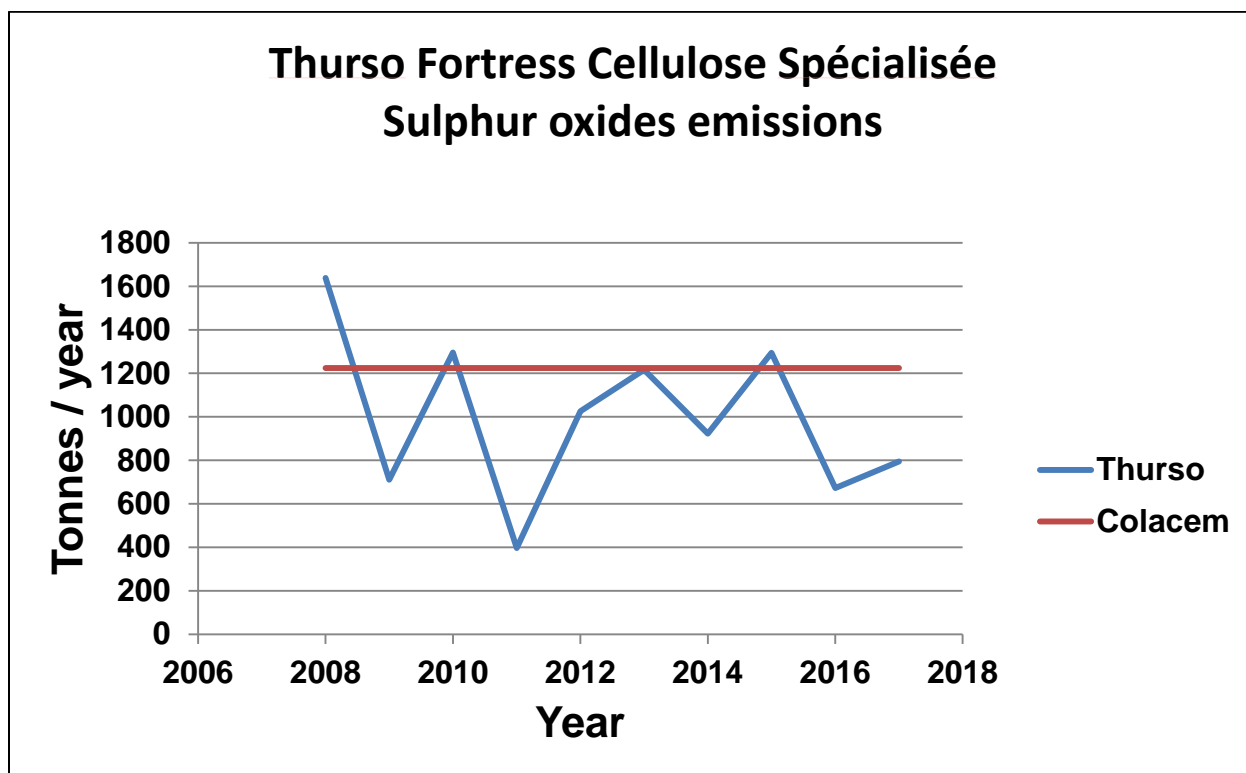


Figure 2. Comparison of sulphur dioxide emissions from the pulp and paper mill in Thurso, Québec from 2008 to 2017 with what Colacem will be emitting (1,224 tonnes per year).

One of the consequences of these emissions is that our region could have the same characteristic smell as a pulp and paper mill region for kilometres around.

This is a huge risk factor that threatens resident's health, the region's wildlife and the environment.

3.3.6 Carbon monoxide (CO)

Carbon monoxide is a poison. The proposed cement plant would increase the emissions of this pollutant more than 41 times what is currently being emitted in the region. These emissions of carbon monoxide would have represented more than 4% of the 2017 total Ontario carbon monoxide emissions if the proposed cement plant had been in operation then.

Carbon monoxide is a poison to birds, to fish, and to mammals. The extent of danger that these emissions will have on the surrounding ecosystems have not been evaluated but they might cause some fauna deaths or illnesses.

<https://www.canada.ca/en/environment-climate-change/services/national-pollutant-release-inventory/tools-resources-data/exploredata.html>

3.3.7 Acid rain

Acid rain can be caused by nitrogen oxides (NO_x) which can become nitric acid and by sulfur oxides (SO_x) which can become sulfuric acid.

The proposed cement plant kiln smokestack will be emitting a combined mass of 10.72 tonnes a day of nitrogen oxides (NO_x) and of sulfur oxides (SO_x) for a combined total of 3,570 tonnes a year. These emissions will add up to 178,500 metric tonnes of potential acid rain causing pollutants for the first 50 years that the cement plant will be in operation.

Acid rain causes damages to the environment, to water bodies, to forests, and to soils. It was the major factor in the decline of sugar maples last century. It can also cause a severe thinning of eggshells or even their complete disappearance in wild birds.³⁰

Acid rain can acidify lakes and streams. Once acidified, lakes and streams become unsuitable for fish, it decreases species richness, community composition, and biodiversity in freshwater ecosystems.

Under our local climate, acid rain can also cause “Episodic Acidification” when the snow melts or after heavy rain. This can cause a surge in acid water washing down into rivers and lakes, severely disturbing ecosystems.

According to the EPA:³¹

Effects of Acid Rain on Fish and Wildlife

The ecological effects of acid rain are most clearly seen in aquatic environments, such as streams, lakes, and marshes where it can be harmful to fish and other wildlife. As it flows through the soil, acidic rain water can leach aluminum from soil clay particles and then flow into streams and lakes. The more acid that is introduced to the ecosystem, the more aluminum is released.

Effects of Acid Rain on Plants and Trees

Dead or dying trees are a common sight in areas effected by acid rain. Acid rain leaches aluminum from the soil. That aluminum may be harmful to plants as well as animals. Acid rain also removes minerals and nutrients from the soil that trees need to grow.

Episodic Acidification

Melting snow and heavy rain downpours can result in what is known as episodic acidification. Lakes that do not normally have a high level of acidity may temporarily experience effects of acid rain when the melting snow or downpour brings greater amounts of acidic deposition and the soil can't buffer it. This short duration of higher acidity (i.e., lower pH) can result in a short-term stress on the ecosystem where a variety of organisms or species may be injured or killed.

³⁰ P. J. Drent & j. W. Woldendorp. 1989. Acid rain and eggshells. Nature 339:431.

³¹ Effects of Acid Rain <https://www.epa.gov/acidrain/effects-acid-rain> Sept. 11, 2020

Terrestrial ecosystems

Nitric acid (from NO_x) and sulfuric acid (from SO_x) deposition causes soil acidification. Acid rain causes damages to crops, to forests, and to soils³². It was the major causal factor in the decline of sugar maples.^{32 33}

Acid rain decreases species richness (number of different species), community composition (some invasive or undesirable species might increase in number to the detriment of regular species), and biodiversity in terrestrial ecosystems. It also negatively affects the physiology and growth of terrestrial organisms, and the productivity of terrestrial ecosystems. In simple terms, soil acidification decreases the availability of most minerals required by plants to grow.^{32 33}

Acidic rain, acid fog and clouds might strip nutrients from trees' foliage, leaving them with brown or dead leaves and needles. The trees are then less able to absorb sunlight, which makes them weak and less able to withstand freezing temperatures. Dead or dying trees are a common sight in areas affected by acid rain. Acid rain also removes minerals and nutrients from the soil that trees need to grow.^{32 33}

In agricultural fields, acid rain decrease crop yield and increase production costs.^{32 33}

Freshwater ecosystems

Another devastating effect of acid rain is that it acidifies streams, lakes, and marshes where it can be harmful to fish and other wildlife.³⁴ Acid rain can make lakes and streams acidic and unsuitable for fish and decreases the number of different species of fish and the number of fish overall.

³² Integrated Science Assessment for Oxides of Nitrogen, Oxides of Sulfur, and Particulate Matter—Ecological Criteria. 2017. National Center for Environmental Assessment-RTP Division, Office of Research and Development, U.S. Environmental Protection Agency, Research Triangle Park, NC. 1,412 pages.

³³ Juice, S. M., Fahey, T. J., Siccama, T. G., Driscoll, C. T., Denny, E. G., Eagar, C., Cleavitt, N. L., Minocha, R. and Richardson, A. D. 2006. Response of sugar maple to calcium addition to northern hardwood forest. *Ecology*, 87: 1267–1280.

³⁴ Effects of Acid Rain. United States Environmental Protection Agency.
<https://www.epa.gov/acidrain/effects-acid-rain>

3.4 Health and environmental risks associated with the pollutants that Colacem will be emitting by its smokestack

Table 3. Summary of the potential effect on health and the environment from some of the inorganic and organic pollutants that will be emitted by the kiln of the proposed cement plant according to the online database of three internationally recognised organisations. Rows in orange are associated with risks to humans while rows in blue are associated with risks to animals and to the environment.

Risks ^A	Organic pollutant	Inorganic pollutant	Combined
Total number of pollutants with a CAS ^B number	36	26	62
Corrosive	1	7	8
Poison	5	10	15
Toxic to humans	3		3
Carcinogenic to humans	3	3	6
Probable human carcinogen	9	1	10
Possibly carcinogenic to humans	3	1	4
Carcinogenic to animals	13	4	17
Possibly carcinogenic to animals	1		1
Toxic to animal	1		1
Very toxic to aquatic organisms	7	3	10
Toxic to aquatic organisms	9	2	11
Harmful to aquatic organisms	2	1	3
Accumulates in plants or animals	10	5	15
May be hazardous to the environment	9	3	12
It is strongly advised that this substance does not enter the environment	7	1	8

^A A compound can have more than one risk associated with it. The full details of the risks are presented in Section 4 below.

^B CAS Registry Number is a unique numerical identifier assigned by Chemical Abstracts Service (CAS) to every chemical substance described in the open scientific literature

3.5 Compilation of the list of volatile organic compound (VOC), of polycyclic aromatic hydrocarbon (PAH) and of phthalate that will be emitted by the kiln smokestack

Volatile organic compound (VOC). VOCs are numerous, varied, and ubiquitous. Some VOCs are dangerous to human health or cause harm to the environment. The proposed cement plant will be emitting 15 different VOC compounds (Table 4).

Polycyclic aromatic hydrocarbon (PAH). According to Wikipedia, cancer is a primary human health risk of exposure to PAHs. Exposure to PAHs has also been linked with cardiovascular disease and poor foetal development. The proposed cement plant will be emitting 15 different PAH compounds (Table 5).

The proposed cement plant will be emitting 2 different phthalates. One of these is considered as a Probable Human Carcinogen and that there is sufficient evidence of carcinogenicity in animals. It is also considered as an endocrine disruptor (Table 6). The other phthalate is a suspected endocrine disruptor in animals.

Some of the compounds below also appear in Appendix 3.

Table 4. Pollutants emitted by the proposed cement plant that are volatile organic compound (VOC).

C3 benzenes	N/A-10
C4 benzenes	N/A-11
C6 benzenes	N/A-12
Acetone	67-64-1
Benzene	71-43-2
Bromomethane	74-83-9
Chlorobenzene	108-90-7
Chloromethane	74-87-3
Ethylbenzene	100-41-4
Formaldehyde	50-00-0
Methyl ethyl ketone	78-93-3
Methylene chloride	75-09-2
Styrene	100-42-5
Toluene	108-88-3
Xylenes	1330-20-7

Table 5. Pollutants emitted by the proposed cement plant that are polycyclic aromatic hydrocarbon (PAH).

Contaminant	CAS
Acenaphthylene	208-96-8
Benzo(a)anthracene	56-55-3
Benzo(a)pyrene	50-32-8
Benzo(b)fluoranthene	205-99-2
Benzo(g,h,i)perylene	191-24-2
Benzo(k)fluoranthene	207-08-9
Chrysene	218-01-9
Dibenz(a,h)anthracene	53-70-3
Fluoranthene	206-44-0
Fluorene	86-73-7
Indeno(1,2,3-cd)pyrene	193-39-5
Methylnaphthalene	90-12-0
Naphthalene	91-20-3
Phenanthrene	85-01-8
Pyrene	129-00-0

Table 6. Pollutants emitted by the proposed cement plant that are phtalates.

Bis(2-ethylhexyl)phthalate	117-81-7
Di-n-butylphthalate	84-74-2

3.6 List of pollutants that will be emitted and that can bio-accumulate in rivers and lakes, in fish, birds, migratory birds, and wildlife, in field crops, hay, cereals, grains, vegetables, fruits, and farm animals.

A full list of the 95 pollutants that the proposed cement plant will be emitting is presented in Table 11, 12 and 13 of Appendix 1.

Some of the pollutants could persist in our environment for some time and eventually accumulate over the years to reach levels that could be dangerous and unsafe in our soils and waterways.

Some pollutants could directly damage crops or affect the health of wildlife and livestock.

Unfortunately, there could also be a more insidious way through which these pollutants could harm agriculture and producers. It could be by contaminating the food supply chain.

There are 15 pollutants that will be emitted by Colacem that can be bio-accumulated and that are toxic or carcinogenic. They have the potential to be bio-accumulated in plants, milk, fish, birds, migratory birds, meat and eggs. The full list along with their toxicity is presented below. Thereafter, they could eventually end up on our plate.

In the tables below, the risks to health and the environment were copied from the online database of three internationally recognised organisations. When a key reference such as TOXNET, NIOSH, ATSDR or INCHEM appears at the end of a sentence, this means that the data was obtained from their database.

TOXNET: Data from Toxnet, Toxicology Data Network. National Library of Medicine HSDB database. <https://www.nlm.nih.gov/toxnet/index.html> (2019) – TOXNET HAS MOVED
As part of a broader NLM reorganization, most of NLM's toxicology information services have been integrated into other NLM products and services.
<https://www.nlm.nih.gov/toxnet/index.html> (2022) .

NIOSH and TOXNET can now be searched at:
<https://chem.nlm.nih.gov/chemidplus/chemidlite.jsp> by entering the CAS number and then choosing NIOSH ICSC (2022).

NIOSH: Data from NIOSH, The National Institute for Occupational Safety and Health (NIOSH) - <https://www.cdc.gov/niosh/ipcsneng/nengname.html>

ATSDR: Data from ATSDR, Toxic Substances Portal. Agency for Toxic Substances and Disease Registry - <https://www.atsdr.cdc.gov/substances/index.asp>

INCHEM: World Health Organization, Internationally Peer Reviewed Chemical Safety Information database. <https://incchem.org/> (2022)

Only the pollutants that have a CAS number, that bio-accumulate, and that had a mention concerning health or environmental risks are presented below. They have been separated into two groups, organic pollutants and inorganic pollutants.

Table 7. List of organic pollutants that will be emitted by the proposed cement plant that have a CAS number and that are known to be dangerous and that bio-accumulate in plant, fish, meat, and the environment.

Organic pollutant	CAS ^A	Information from TOXNET, NIOSH, ATSDR and INCHEM
Benzo(a)anthracene	56-55-3	Probable human carcinogen - animal carcinogenicity data: Sufficient (TOXNET). Bioaccumulation of this chemical may occur in seafood (NIOSH). May cause cancer. Very toxic to aquatic life with long lasting effects. The substance is very toxic to aquatic organisms. The substance may cause long-term effects in the aquatic environment. Bioaccumulation of this chemical may occur in aquatic organisms. It is strongly advised not to let the chemical enter into the environment. (INCHEM)
Benzo(a)pyrene	50-32-8	Carcinogenic to humans - sufficient evidence for the carcinogenicity in experimental animals (TOXNET). The substance is very toxic to aquatic organisms. Bioaccumulation of this chemical may occur in fish, in plants and in molluscs. The substance may cause long-term effects in the aquatic environment (NIOSH).
Benzo(k)fluoranthene	207-08-9	Probable human carcinogen - Sufficient evidence of carcinogenicity in animals (TOXNET). This substance may be hazardous to the environment; special attention should be given to air quality and water quality. Bioaccumulation of this chemical may occur in crustacea and in fish (NIOSH).
Biphenyl	92-52-4	The substance is very toxic to aquatic organisms. Bioaccumulation of this chemical may occur along the food chain, for example in plants. It is strongly advised that this substance does not enter the environment (NIOSH).
Bis(2-ethylhexyl) phthalate	117-81-7	Probable Human Carcinogen - Sufficient evidence of carcinogenicity in animals - Is an endocrine disruptor (TOXNET). Bioaccumulation of this chemical may occur in seafood (NIOSH).
Chrysene	218-01-9	Probable human carcinogen - animal carcinogenicity data: Sufficient (TOXNET). The substance is very toxic to aquatic organisms. Bioaccumulation of this chemical may occur in seafood. It is strongly advised that this substance does not enter the environment (NIOSH).
Dibenz(a,h)anthracene	53-70-3	Probable human carcinogen - Sufficient evidence of carcinogenicity in animals (TOXNET). Bioaccumulation of this chemical may occur in seafood (NIOSH).
Dioxins and Furans (TEQ)	Used 1746-01-6 since generic description	Carcinogenic to humans - carcinogenic to animals (TOXNET). Poison, The substance is very toxic to aquatic organisms. This substance may be hazardous in the environment; special attention should be given to soil contamination. Bioaccumulation of this chemical may occur in fish, in plants, in mammals and in milk. It is strongly advised that this substance does not enter the environment (NIOSH).
Indeno(1,2,3-cd)pyrene	193-39-5	Probable human carcinogen - Sufficient evidence of carcinogenicity in animals (TOXNET). This substance may be hazardous to the environment; special attention should be given to air quality and water quality. Bioaccumulation of this chemical may occur in fish (NIOSH).
Pyrene	129-00-0	Bioaccumulation of this chemical may occur in crustacea, in fish, in milk, in algae and in molluscs. It is strongly advised that this substance does not enter the environment (NIOSH).

^A CAS Registry Number is a unique numerical identifier assigned by Chemical Abstracts Service (CAS) to every chemical substance described in the open scientific literature.

Table 7 (continued from previous page). List of inorganic pollutants that will be emitted by the proposed cement plant that have a CAS number and that are known to be dangerous and that bio-accumulate in plant, fish, meat, and the environment.

Inorganic pollutant	CAS ^A	Information from TOXNET, NIOSH, ATSDR and INCHEM
Barium	7440-39-3	Fish and aquatic organisms can accumulate barium (ATSDR)
Lead	7439-92-1	Probable human carcinogen - Sufficient evidence of carcinogenicity in animals (TOXNET). Bioaccumulation of this chemical may occur in plants and in mammals (NIOSH)
Mercury	7439-97-6	Corrosive, the substance is very toxic to aquatic organisms. In the food chain important to humans, bioaccumulation takes place, specifically in fish (NIOSH). Mercury combines with carbon to make organic mercury compounds. The most common one, methylmercury, is produced mainly by microscopic organisms in the water and soil. More mercury in the environment can increase the amounts of methylmercury that these organisms make (ATSDR). Methylmercury is a possible human carcinogen (TOXNET).
Selenium	7782-49-2	Selenium may accumulate up the food chain (ATSDR).
Thallium	7440-28-0	Poison, the substance is toxic to aquatic organisms. Bioaccumulation of this chemical may occur along the food chain, for example in freshwater organisms. This substance may be hazardous to the environment; special attention should be given to birds and mammals (NIOSH). It is strongly advised that this substance does not enter the environment. The substance may cause long-term effects in the aquatic environment. It's absorbed by plants and enters the food chain, it builds up in fish and shellfish (ATSDR).

^A CAS Registry Number is a unique numerical identifier assigned by Chemical Abstracts Service (CAS) to every chemical substance described in the open scientific literature.

4. Full list of health and environmental risks from the inorganic and organic pollutants that will be emitted by the proposed cement plant

In the tables below, the risks to health and the environment were copied from the online database of three internationally recognised organisations. When a key reference such as TOXNET, NIOSH or ATSDR appears at the end of a sentence, this means that the data was obtained from their database.

TOXNET: Data from Toxnet, Toxicology Data Network. National Library of Medicine HSDB database. <https://www.nlm.nih.gov/toxnet/index.html> (2019) – TOXNET HAS MOVED
As part of a broader NLM reorganization, most of NLM's toxicology information services have been integrated into other NLM products and services.
<https://www.nlm.nih.gov/toxnet/index.html> (2022) .

NIOSH and **TOXNET** can now be searched at:
<https://chem.nlm.nih.gov/chemidplus/chemidlite.jsp> by entering the CAS number and then choosing NIOSH ICSC (2022).

NIOSH: Data from NIOSH, The National Institute for Occupational Safety and Health (NIOSH)
- <https://www.cdc.gov/niosh/ipcsneng/nengname.html>

ATSDR: Data from ATSDR, Toxic Substances Portal. Agency for Toxic Substances and Disease Registry - <https://www.atsdr.cdc.gov/substances/index.asp>

Only the pollutants that have a CAS number and that had a mention concerning health or environmental risks are presented below.

Table 8. List of inorganic pollutants that will be emitted by the kiln of the Colacem cement plant that have a CAS number and some recognised health or environmental risks (continued next page).

Contaminant	CAS ^A	Information from TOXNET, NIOSH and ATSDR
Ammonia	7664-41-7	Poison and corrosive, the substance is very toxic to aquatic organisms (NIOSH)
Arsenic	7440-38-2	Carcinogenic to humans (TOXNET). Poison, the substance is toxic to aquatic organisms (NIOSH)
Barium	7440-39-3	Fish and aquatic organisms can accumulate barium (ATSDR)
Beryllium	7440-41-7	Carcinogenic to humans - carcinogenic to animals (TOXNET). Poison, the substance is very toxic to aquatic organisms (NIOSH)
Cadmium	7440-43-9	Carcinogenic to humans - carcinogenic to animals (TOXNET). Poison (NIOSH). Fish, plants, and animals take up cadmium from the environment (ATSDR).
Calcium Oxide	1305-78-8	Corrosive (NIOSH). In aqueous suspension the substance react basic and have a toxic effect on fish (TOXNET).
Carbon Monoxide	630-08-0	Poison (NIOSH).
Crystalline Silica	14808-60-7	Suspected human carcinogen - there is sufficient evidence for carcinogenicity in experimental animals (TOXNET).
Hydrogen Chloride	7647-01-0	Decrease pH of water (TOXNET). Poison, Corrosive (NIOSH). Other name is Hydrochloric acid, anhydrous. Hydrogen chloride is irritating and corrosive to any tissue it contacts, ultimately lowers the pH of the water (ATSDR). Upon contact with water, it forms hydrochloric acid (ATSDR).
Hydrogen Fluoride	7664-39-3	Poison, Corrosive (NIOSH)
Lead	7439-92-1	Probable human carcinogen - Sufficient evidence of carcinogenicity in animals (TOXNET). Bioaccumulation of this chemical may occur in plants and in mammals (NIOSH)

Table 8. (continued from previous page) List of inorganic pollutants that will be emitted by the kiln of the Colacem cement plant that have a CAS number and some recognised health or environmental risks.

Contaminant	CAS ^A	Information from TOXNET, NIOSH and ATSDR
Manganese	7439-96-5	This substance may be hazardous in the environment; special attention should be given to aquatic organisms (NIOSH).
Mercury	7439-97-6	Corrosive, the substance is very toxic to aquatic organisms. In the food chain important to humans, bioaccumulation takes place, specifically in fish (NIOSH). Mercury combines with carbon to make organic mercury compounds. The most common one, methylmercury, is produced mainly by microscopic organisms in the water and soil. More mercury in the environment can increase the amounts of methylmercury that these organisms make (ATSDR). Methylmercury is a possible human carcinogen (TOXNET).
Nitrogen Oxides	10102-44-0	Poison, corrosive, oxidiser (NIOSH). The reaction of nitrogen dioxide with chemicals produced by sunlight leads to the formation of nitric acid, which is a major constituent of acid rain. Nitrogen dioxide also reacts with sunlight, which leads to the formation of ozone and smog conditions in the air we breathe (ATSDR).
Selenium	7782-49-2	Selenium may accumulate up the food chain (ATSDR).
Silver	7440-22-4	This substance may be hazardous to the environment; special attention should be given to aquatic organisms (NIOSH).
Sulfur Dioxide	7446-09-5	Poison, corrosive. The substance is harmful to aquatic organisms (NIOSH). In the air, it can be converted to sulfuric acid, it dissolves in water and can form sulfurous acid (ATSDR).
Thallium	7440-28-0	Poison, the substance is toxic to aquatic organisms. Bioaccumulation of this chemical may occur along the food chain, for example in freshwater organisms. This substance may be hazardous to the environment; special attention should be given to birds and mammals (NIOSH). It is strongly advised that this substance does not enter the environment. The substance may cause long-term effects in the aquatic environment. It's absorbed by plants and enters the food chain, it builds up in fish and shellfish (ATSDR).

^A CAS Registry Number is a unique numerical identifier assigned by Chemical Abstracts Service (CAS) to every chemical substance described in the open scientific literature.

Table 9. List of organic pollutants that will be emitted by the kiln of the Colacem cement plant that have a CAS number and some recognised health or environmental risks (continued next page).

Contaminant	CAS ^A	Information from TOXNET, NIOSH and ATSDR
Benzaldehyde	100-52-7	The substance is harmful to aquatic organisms (NIOSH).
Benzene	71-43-2	Carcinogenic to humans - carcinogenic to animals (TOXNET). The substance is very toxic to aquatic organisms (NIOSH).
Benzo(a)anthracene	56-55-3	probable human carcinogen - animal carcinogenicity data: Sufficient (TOXNET). Bioaccumulation of this chemical may occur in seafood (NIOSH).
Benzo(a)pyrene	50-32-8	Carcinogenic to humans - sufficient evidence for the carcinogenicity in experimental animals (TOXNET). The substance is very toxic to aquatic organisms. Bioaccumulation of this chemical may occur in fish, in plants and in molluscs. The substance may cause long-term effects in the aquatic environment (NIOSH).
Benzo(b)fluoranthene	205-99-2	Probable human carcinogen - Sufficient evidence of carcinogenicity in animals (TOXNET). This substance may be hazardous to the environment; special attention should be given to air quality and water quality (NIOSH).
Benzo(g,h,i)perylene	191-24-2	This substance may be hazardous to the environment; special attention should be given to air and water (NIOSH).
Benzo(k)fluoranthene	207-08-9	Probable human carcinogen - Sufficient evidence of carcinogenicity in animals (TOXNET). This substance may be hazardous to the environment; special attention should be given to air quality and water quality. Bioaccumulation of this chemical may occur in crustacea and in fish (NIOSH).
Biphenyl	92-52-4	The substance is very toxic to aquatic organisms. Bioaccumulation of this chemical may occur along the food chain, for example in plants. It is strongly advised that this substance does not enter the environment (NIOSH).

Table 9. (continued from previous page) List of organic pollutants that will be emitted by the kiln of the Colacem cement plant that have a CAS number and some recognised health or environmental risks.

Contaminant	CAS ^A	Information from TOXNET, NIOSH and ATSDR
Bis(2-ethylhexyl) phthalate	117-81-7	Probable Human Carcinogen - Sufficient evidence of carcinogenicity in animals - Is an endocrine disruptor (TOXNET). Bioaccumulation of this chemical may occur in seafood (NIOSH).
Bromomethane	74-83-9	Immediately Dangerous To Life or Health Concentration by NIOSH. Other name is methyl bromide - toxic to farm animals and aquatic life (TOXNET). Poison, this substance may be hazardous in the environment; special attention should be given to fish, mammals, plants, soil organisms (NIOSH).
Carbon disulfide	75-15-0	Carbon disulfide is highly toxic. Occupational exposure to carbon disulfide is associated with cardiovascular disease, in particular: stroke - toxic to animals, teratogenic (TOXNET). Poison, the substance is toxic to aquatic organisms (NIOSH).
Chlorobenzene	108-90-7	Chlorobenzene exhibits "low to moderate" toxicity to humans and animals - Studies in animals have shown that chlorobenzene can produce liver nodules, providing some but not clear evidence of cancer risk (TOXNET). The substance is harmful to aquatic organisms. It is strongly advised that this substance does not enter the environment (NIOSH)
Chloromethane	74-87-3	Also called methyl chloride. Considered possibly carcinogenic to humans and to animals. Exhibits "low to moderate" toxicity to humans and animals
Chrysene	218-01-9	Probable human carcinogen - animal carcinogenicity data: Sufficient (TOXNET). The substance is very toxic to aquatic organisms. Bioaccumulation of this chemical may occur in seafood. It is strongly advised that this substance does not enter the environment (NIOSH).
Dibenz(a,h)anthracene	53-70-3	Probable human carcinogen - Sufficient evidence of carcinogenicity in animals (TOXNET). Bioaccumulation of this chemical may occur in seafood (NIOSH).

Table 9. (continued from previous page) List of organic pollutants that will be emitted by the kiln of the Colacem cement plant that have a CAS number and some recognised health or environmental risks.

Contaminant	CAS ^A	Information from TOXNET, NIOSH and ATSDR
Di-n-butylphthalate	84-74-2	On the California list of suspected teratogens in November 2006. It is a suspected endocrine disruptor in animals (TOXNET). The substance is toxic to aquatic organisms (NIOSH).
Dioxins and Furans (TEQ)	Used 1746-01-6 since generic description	Carcinogenic to humans - carcinogenic to animals (TOXNET). Poison, The substance is very toxic to aquatic organisms. This substance may be hazardous in the environment; special attention should be given to soil contamination. Bioaccumulation of this chemical may occur in fish, in plants, in mammals and in milk. It is strongly advised that this substance does not enter the environment (NIOSH).
Ethylbenzene	100-41-4	Confirmed animal carcinogen with unknown relevance to humans (TOXNET). The substance is toxic to aquatic organisms. It is strongly advised that this substance does not enter the environment (NIOSH).
Formaldehyde	50-00-0	Probable human carcinogen - Sufficient evidence of carcinogenicity in animals. Strong association between exposure to formaldehyde and the development of childhood asthma. Same problems as Urea-formaldehyde (TOXNET). The substance is very toxic to aquatic organisms (NIOSH).
Freon 113	76-13-1	The substance is toxic to aquatic organisms. This substance may be hazardous to the environment; special attention should be given to its impact on the ozone layer (NIOSH).
Indeno(1,2,3-cd)pyrene	193-39-5	Probable human carcinogen - Sufficient evidence of carcinogenicity in animals (TOXNET). This substance may be hazardous to the environment; special attention should be given to air quality and water quality. Bioaccumulation of this chemical may occur in fish (NIOSH).

Table 9. (continued from previous page) List of organic pollutants that will be emitted by the kiln of the Colacem cement plant that have a CAS number and some recognised health or environmental risks.

Contaminant	CAS ^A	Information from TOXNET, NIOSH and ATSDR
Methylene chloride	75-09-2	Probable human carcinogen - Sufficient evidence of carcinogenicity in animals (TOXNET). Poison, This substance may be hazardous in the environment; special attention should be given to ground water contamination (NIOSH).
Methylnaphthalene	90-12-0	The substance is toxic to aquatic organisms. The substance may cause long-term effects in the aquatic environment (NIOSH).
Naphthalene	91-20-3	Possible human carcinogen. Confirmed animal carcinogen (TOXNET). The substance is very toxic to aquatic organisms. The substance may cause long-term effects in the aquatic environment (NIOSH).
Phenol	108-95-2	Phenol and its vapors are corrosive to the eyes, the skin, and the respiratory tract. Phenol is also a reproductive toxin causing increased risk of abortion and low birth weight TOXNET. Poison, the substance is toxic to aquatic organisms (NIOSH).
Pyrene	129-00-0	Bioaccumulation of this chemical may occur in crustacea,in fish,in milk,in algae andin molluscs. It is strongly advised that this substance does not enter the environment (NIOSH).
Styrene	100-42-5	Possibly carcinogenic to humans (TOXNET). The substance is toxic to aquatic organisms. It is strongly advised that this substance does not enter the environment (NIOSH).
Toluene	108-88-3	The substance is toxic to aquatic organisms (NIOSH).
Xylenes	1330-20-7	m-xylene, o-xylene, p-xylene are synonyms and these substances are toxic to aquatic organisms (NIOSH).

^A CAS Registry Number is a unique numerical identifier assigned by Chemical Abstracts Service (CAS) to every chemical substance described in the open scientific literature.

Appendix 4

Errors, omissions and misrepresentation in the documents submitted by Colacem to obtain the Environmental Compliance Approval (ECA)

1. Summary

Basically, the conclusions of both air quality expert witness from both opposing parties is that the Ontario Ministry of the Environment, Conservation and Parks (MECP) did not receive the information that it needed to allow it to make an informed decision concerning the proposed cement plant projected cumulative emissions with the emissions from the quarry.

These are the reasons why:

Errors of facts:

- **Underestimation of stack emitted air pollutants emissions by 10.23% because US short tons values were used instead of metric tonnes**
- **Two different values of kiln stack normalized flow rate values are used to refer to what is the same volume**
These values are very important because they are used to model the air dispersion of the pollutants using very complex models where any errors will have an impact on the precision and accuracy of the results.
- **According to Colacem's documents, once they will be operational, they predicts that ambient levels of dioxins and furans will be 80,000 to 220,000 times greater than the maximum allowed in Ontario**
This is a probably confusion with some of the mass units.
- **The wrong quarry emissions model was used**
- **The wrong quarry emission values were used in the cumulative studies produced by Colacem**
Wrong values from 2016 were used. The federal government's database official value for the 2016 quarry emission was 18 tonnes and they used 16.1 tonnes instead.
- **Colacem states that «CO, NO_x, SO₂, and D&F are only emitted from the kiln exhaust stack» which is absolutely erroneous.**
Any machinery, transport trucks, or stationary engine using diesel as fuel will also emit these pollutants. D&F stands dioxins and furans.

Omission of facts

- **The quarry's expected increase in limestone extraction was not taken into account.**
the quarry will have to extract 4 to 5 times more limestone to supply the proposed cement plant once it is operational
- **Activities that were not taken into account**
Considering the potential importance of the quarry's activities emissions, the transport trucks emissions, the diesel machinery or equipment emissions, the blasting emissions, it cannot be concluded that the Cumulative Effects Study submitted by Colacem, as stipulated by the MECP, is accurate and credible.

Misrepresentation of facts

- **Colacem misrepresented the daily quarry activities by 240 %**
Colacem modelled emissions based on the quarry operating 10 hours a day instead of the 24 hours a day that they repeatedly affirmed in their texts.

The Cumulative Effects Study (CES) submitted by Colacem does not truly reflect how the proposed cement plant will operate

There are sufficient errors of facts, omission of facts, and proof of misrepresentation of facts to invalidate the Cumulative Effects Study (CES) that Colacem submitted to the Ontario Ministry of the Environment, Conservation and Parks (MECP).

Basically, the conclusions of both air quality expert witness (opposed parties) is that the Ontario Ministry of the Environment, Conservation and Parks (MECP) did not receive the information that it needed to allow it to make an informed decision concerning the adverse effects of the proposed cement plant projected cumulative emissions with the emissions from the quarry.

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2. Introduction

Colacem Canada Inc. (Colacem) received an Environmental Compliance Approval (ECA) from the Ontario Ministry of the Environment, Conservation and Parks (MECP) to construct a cement plant in L'Orignal which is in the Township of Champlain (Lower Tier municipality) and in the United Counties of Prescott and Russell (Upper Tier municipality) in Ontario.¹

In parallel to the ECA application, Colacem had also made an application for a zoning change from Rural Zone to Industrial Heavy Zone in order to be able to build a cement plant.

In order to permit the proposed development, approval of amendments to the United Counties of Prescott-Russell *Official Plan* and the Township of Champlain *Zoning By-Law No. 2000-75* were required. The United Counties of Prescott and Russell (upper-tier municipality) *Official Plan* designated the site as a Rural Policy Area and approved to change the site to Trade and Industry Policy Area. Similarly, the Township of Champlain (lower-tier municipality) had designated the site as Rural Area and they declined to change its zoning from Rural Zone to Industrial Heavy Zone to allow for construction of the proposed cement plant.

Subsequently, on February 21, 2017, Action Champlain, (a citizen's group) filed a Notice of Appeal under s. 17(36) of the Planning Act against the United Counties of Prescott-Russell's decision to adopt the Official Plan Amendment No. 30 (the "OPA") to re-designate the Subject Lands from Rural Policy Area to Trade and Industry Policy Area with the Ontario Municipal Board (OMB).

Colacem filed an appeal under s. 34(11) of the Planning Act, against the Township's refusal to amend the Township Zoning By-law to rezone the Subject Lands from Rural Zone (RU) to Industrial Heavy – Special Zone (MG-3) and Industrial Heavy – Special Exemption Zone (MG-4) (the Zoning By-law Amendment, and together with the OPA, the "Planning Applications").

The Ontario Municipal Board (the "OMB") is continued under the name Local Planning Appeal Tribunal (LPAT) and, after several delays, the LPAT hearings took place in late 2020 and the Member's decision was issued April 12, 2021.

The LPAT Member, Nicholas Robinson, presided over the hearing. In his decision, he dismissed the zoning change appeal from Action Champlain and ordered the Township of Champlain to amend its By-Law to allow Colacem to build a cement plant.²

This decision concerned land use planning and is not related to this petition.

¹ Instrument type: Environmental Compliance Approval (air). ERO number: 012-8124
<https://ero.ontario.ca/notice/012-8124>

² Decision delivered by N.P. Robinson and order of the tribunal. Local Planning Appeal Tribunal - Tribunal d'appel de l'aménagement local. Issue Date: April 12, 2021. Case No(s): PL170756
<https://olt.gov.on.ca/tribunals/lpat/e-decisions/> and search for PL170756

However, during the Local Planning Appeal Tribunal hearings, the Tribunal was made aware of numerous errors of facts, of many important omissions, and of some misrepresentation. All of which were advantageous to Colacem in that they greatly underestimated pollutant emissions from the proposed cement plant and its adjacent quarry.

3. Errors of facts

3.1 Underestimation of stack emitted air pollutants emissions by 10.23%

Air emission calculation errors were revealed during the Local Planning Appeal Tribunal hearings where Colacem used US short tons units (907.185 kg) instead of metric tonnes (1,000 kg) of clinker and to which the Member making the Decision refers to in his judgement:

[40] The Tribunal heard testimony that a calculation error surrounding the failure to convert imperial units to metric units (ton versus tonne) would have increased emissions data by “an insignificant amount”. The Tribunal accepts this conclusion but notes that additional errors were revealed in subsequent cross examination.³

Mr. Capstick is Colacem air quality expert witness and he is the one that made these errors. He is also the expert that stated, in item number [40], that his 10.23 % lower values error was by “an insignificant amount”. A fraction of 1% could be considered insignificant exceptionally in some circumstances, but more than 10% is anything but insignificant. In the case of the proposed cement plant, this means that kiln smokestack pollutant emissions are 19 metric tonnes a day instead of the 17 metric tonnes as Colacem stated (Appendix 1, Table 11).

Metrication in Canada began in 1970, more than 50 years ago⁴, and it is difficult to believe that air quality experts would make this type of errors in the twenty-first century. These errors undermine the credibility of any facts, values, and reports that Colacem has submitted to obtain their Environmental Compliance Approval.

Considering that there will be 72 pollutants emitted through the kiln stack, these errors in quantity of emissions were advantageous for Colacem by underestimating their amount and the risk that they represent.

These errors of facts raise serious credibility issues with the reports produced by Colacem.

³ Decision delivered by N.P. Robinson and order of the tribunal. Local Planning Appeal Tribunal - Tribunal d'appel de l'aménagement local. Issue Date: April 12, 2021. Case No(s): PL170756 <https://olt.gov.on.ca/tribunals/lpat/e-decisions/> and search for PL170756

⁴ Metric Conversion. <https://www.thecanadianencyclopedia.ca/en/article/metric-conversion>

3.2 Two different values of kiln stack normalized flow rate values are used to refer to what is the same volume

The kiln stack flow rate is expressed in volume per hour [m^3/hr]. There is a distinction between actual flow rate and normalized flow rate.

The actual flow rate is the volume that passes a point per unit time at an ambient temperature of 25 C (Am^3/hr).⁵ This value is 1,000,000 m^3/hr for the kiln (Page 57, 96, 100, 208, 241, 244, 282, 285, 319, 361, 364, 532, 533, 606, 607).⁵

The normalized flow rate is the adjusted volume that passes a point per unit time at a reference temperature of 20 C (Nm^3/hr). These values are very important because they are used to predict the air dispersion of the pollutants using very complex models where any errors will have an impact on the precision and accuracy of the results.

Colacem has used two different values for the kiln stack normalized flow rate (Nm^3/hr). Both refer to the same thing and they should have the same value:

For both cases, we are referring to the Stack/Modeling ID E18. This is the Kiln Stack Dust Collector with an Actual Flow Rate of 1,000,000 m^3/hour . This actual flow rate value remains constant throughout the reports and regardless of the normalized flow rate values listed.

For E18, the Normalized Flow Rate is reported to be 693,026 m^3/hour on pages: 96, 241, 282, 361, 532, 606.⁵ (see Figure 1 below for an example).

For E18, the Normalized Flow Rate is reported to be 692,780 m^3/hour on pages: 57, 99, 100, 244, 285, 319, 364, 533, 607 (see Figure 2 below for an example).

These two figures are in a report dated November 2018 which is the most recent available.

The difference is not huge but these values are very important because they are used to model the air dispersion of the pollutants using very complex models where any errors will have an impact on the precision and accuracy of the results.

These errors highlight a lack of technical rigour, especially considering that they are one to three pages apart in several of the reports.

This inaccuracy in reporting values that should be the same decreases the confidence that we should have concerning the precision and reliability of the values put forth by Colacem in their support documents. How can any of their calculations be considered trustworthy and dependable?

⁵ Colacem - Witness Statement - Sean Capstick (Air) 18Sep2020.pdf

Conversion Factors		Assumed Flow Rate Conditions	
1 g =	1000 mg	Ambient Temp =	25 C
1 hr =	3600 s	Ambient Temp =	298 K
1 day =	24 hr	Normalized Temp=	20 C
deg K =	273.15 + deg C	Normalized Temp=	293 K
*corrected only for temperature			

Stack/ Modelling ID	Stack/Source Name	Actual Flow Rate [Am ³ /hr]	Exhaust Temperature [°C]	Normalized Flow Rate [Nm ³ /hr]	Out
E1	Bauxite Receiving Dust Collector	10,000	Ambient	9,832	
E2	Shale, Silica, Iron Ore Receiving Dust Collector	10,000	Ambient	9,832	
E3	Gypsum Receiving Dust Collector	10,000	Ambient	9,832	
E4	Limestone Crusher Dust Collector	30,000	Ambient	29,497	
E5	Bauxite Storage Bin Dust Collector	3,000	Ambient	2,950	
E6	Iron Ore Hopper Dust Collector	5,000	Ambient	4,916	
E7	Silica Hopper Dust Collector	5,000	Ambient	4,916	
E8	Limestone Reclaimer Belt Dust Collector	3,000	Ambient	2,950	
E9	Limestone Reclaimer Belt Dust Collector	3,000	Ambient	2,950	
E10	Gypsum Reclaimer Belt Dust Collector	3,000	Ambient	2,950	
E11	Limestone & Gypsum Belt to Cement Hopper Dust Collector	3,000	Ambient	2,950	
E12	Constituents Belt to Cement Hopper Dust Collector	3,000	Ambient	2,950	
E13	Raw Mill Feeding Dust Collector	15,000	Ambient	14,748	
E14	Raw Meal Airslide Dust Collector	5,000	60	4,402	
E15	Raw Meal Silo Dust Collector	10,000	60	8,803	
E16	Raw Meal Silo Extraction Dust Collector	10,000	60	8,803	
E17	Air Lift Bin Dust Collector	10,000	60	8,803	
E18	Kiln Dust Collector	1,000,000	150	693,026	
E19	Precooler Receiving Dust Collector	10,000	Ambient	9,832	

Figure 1. For E18, the Normalized Flow Rate is reported to be 693,026 m³/hour (circled in red). The normalized temperature is 20 C (above right, circled in red). This figure is a screen capture of part of page 606 in a report dated November 2018.⁶

Assumed Flow Rate Conditions*	
Normalized Temp=	20 C
Normalized Temp=	293 K
*corrected only for temperature	

Particle Size [µm]	Cumulative % Particle Distribution	Fabric Filter Collection Efficiencies
SPM	—	99.5%
PM10	53%	99.5%
PM2.5	18%	99.0%

Reference: Cumulative % Particle Distribution US EPA AP-42 Appendix B.2 - GENERALIZED PARTICLE SIZE DISTRIBUTIONS, Category 5 Table B.2-3

Fabric Filter Collection Efficiencies:

Stack/Modelling ID	Stack/Source Name	Actual Flow Rate [Am ³ /hr]	Stack Temperature [°C]	Normalized Flow Rate [Nm ³ /hr]
E18	Kiln Dust Collector	1,000,000	150	692,780

Figure 2. For E18, the Normalized Flow Rate is reported to be 692,780 m³/hour (circled in red). The normalized temperature is 20 C (circled in red). This figure is a screen capture of part of page 607 in a report dated November 2018.⁶

⁶ Colacem - Witness Statement - Sean Capstick (Air) 18Sep2020.pdf

3.3 According to Colacem's documents, once they will be operational, they predicts that ambient levels of dioxins and furans will be 80,000 to 220,000 times greater than the maximum allowed in Ontario

There seems to be some confusion concerning the use of mass units for dioxins and furans in Colacem reports.

Colacem did submit an air quality cumulative effects study where they cumulated their predicted emissions with those from Ivaco Rolling Mills (existing plant, 4.1 km away).⁷

According to Colacem, the Highest Predicted Concentration of dioxins and furans' cumulative emissions for the Maximum Scenario (Figure 3 below) will be 0.008 micrograms / m³ [0.008 µg/m³].

Here are the unit conversion factors:

1 picogram	= 0.000000000001 gram	= 1 10 ⁻¹² gram
1 picogram	= 0.000001 microgram	= 1 10 ⁻⁶ microgram
1 microgram	= 1,000,000 picogram	= 1 10 ⁶ picograms
1 microgram	= 0.000001 gram	= 1 10 ⁻⁶ gram

Microgram is also written as µg

D&F stands for dioxins and furans in Figure 3 below. They write that the proposed cement plant and Ivaco Rolling Mills will emit a combined value of 0.008 micrograms [0.008 µg/m³] of dioxins and furans.

1 microgram	= 1,000,000 picogram
0.008 microgram	= 8,000 picogram (Table 1, Highest Predicted Concentration, Nov. 2018 and Figure 3)
0.022 microgram	= 22,000 picogram (Table 1, Highest Predicted Concentration, May 2018)

The Ontario Ambient Air Quality Criteria (AAQC) emission limit is 0.1 picogram [0.1 pg/m³].⁷ Consequently, the Maximum Emission Scenario for Dioxins and Furans (D&F) is 80,000 times the Ontario limit, or 220,000 in the case of 0.022 microgram.

This error of scale was done on the following pages:
42, 80, 210, 239, 269, 304, 345, 516, 517, 544, 560, 572, 592, 593, 623⁷

More details are presented in Table 1 below.

It is likely an error in units used in the table shown in Figure 3. However, it does show carelessness and inaccuracy. This lack of rigour puts in doubt the credibility of Colacem's calculations and conclusions.

⁷ Colacem - Witness Statement - Sean Capstick (Air) 18Sep2020.pdf

Table 1: Highest Predicted Concentration for the Maximum Scenario

Compound	Averaging Period	AAQC Criteria [$\mu\text{g}/\text{m}^3$]	Background Concentration [$\mu\text{g}/\text{m}^3$]	Project + Existing Facilities Concentration [$\mu\text{g}/\text{m}^3$]	Total Cumulative Concentration [$\mu\text{g}/\text{m}^3$]	Percent of Criteria [%]
SPM	24-hr	120	45.7	139.1	184.8	>100%
PM ₁₀	24-hr	50	22.86	31.6	54.5	>100%
PM _{2.5}	24-hr	27	11.43	9.4	20.9	77%
NO _x	1-hr	400	26.3	240.6	266.9	67%
	24-hr	200	23.0	50.1	73.1	37%
SO ₂	1-hr	183	2.6	38.7	41.3	23%
	24-hr	150	3.9	7.9	11.8	8%
CO	1-hr	36,200	343.6	80.2	423.8	1%
	8-hr	15,700	343.6	17.2	360.7	2%
D&F	24-hr	0.1 [pg/m^3]	—	0.008	0.008	8%

Figure 3. Combined emissions of the proposed cement plant and Ivaco Rolling Mills, an industrial site 4.1 km away from Colacem. Screen capture of page 623.⁸ D&F stands for dioxins and furans. AAQC criteria (Ontario's Ambient Air Quality Criteria) is expressed in picograms (pg), [pg/m^3] in the table above. The predicted concentration is expressed in micrograms [$\mu\text{g}/\text{m}^3$] (circled in red).

Table 1. Values of the Dioxins and Furans concentration through the various versions of Colacem reports.⁸

Date	Scenario	Value	Unit	Page
May 2018	Highest Predicted Concentration Ivaco + Colacem cement plant	0.022	$\mu\text{g} / \text{m}^3$	516
May 2018		0.022	$\mu\text{g} / \text{m}^3$	544
November 2018		0.008	$\mu\text{g} / \text{m}^3$	592
November 2018		0.008	$\mu\text{g} / \text{m}^3$	623
August 2017	Maximum Concentration or Highest Predicted Concentration at Sensitive Receptor	0.009	$\mu\text{g} / \text{m}^3$	269
May 2018		0.005	$\mu\text{g} / \text{m}^3$	517
September 2018		0.006	$\mu\text{g} / \text{m}^3$	572
November 2018		0.004	$\mu\text{g} / \text{m}^3$	593
May 2016	Maximum POI (Point of Impingement) Concentration	3.13E-09	$\mu\text{g} / \text{m}^3$	42
May 2016		3.13E-09	$\mu\text{g} / \text{m}^3$	80
June 2017		3.13E-09	$\mu\text{g} / \text{m}^3$	210
August 2017		3.13E-09	$\mu\text{g} / \text{m}^3$	239
August 2017		3.13E-09	$\mu\text{g} / \text{m}^3$	304
August 2017		3.13E-09	$\mu\text{g} / \text{m}^3$	345
September 2018		2.62E-09	$\mu\text{g} / \text{m}^3$	560

⁸ Colacem - Witness Statement - Sean Capstick (Air) 18Sep2020.pdf

Sensitive receptor refer to houses or businesses.

There are three categories, all units are $\mu\text{g} / \text{m}^3$;

- Highest Predicted Concentration (0.022 in May 2018 to 0.008 in November 2018)
- Maximum Concentration at Sensitive Receptor (from 0.009 in August 2017 to 0.004 in November 2018)
- Maximum POI (Point of Impingement) Concentration (from 3.13E-09 in May 2016 to 2.62E-09 in September 2018)

Their values submitted by Colacem decreased in time but no explanations were found.

3.4 The wrong quarry emissions model was used

During the LPAT hearings, Action Champlain's expert witness on air quality, Mr. Sulley, pointed out that the model that had been used by Colacem was for a different quarry configuration. The Member making the Decision refers to this in his judgement:

[54] Mr. Sulley's testimony was critical of the modelling methodology used by Mr. Capstick.⁹

Mr. Sulley is Action Champlain's air quality expert witness. Action Champlain was a party opposing the zoning changes during the Local Planning Appeal Tribunal hearings.

This type of error does not inspire confidence in the precision and reliability of the values put forth by Colacem in their support documents. How can any of their calculations considered to be trustworthy and dependable?

⁹ Decision delivered by N.P. Robinson and order of the tribunal. Local Planning Appeal Tribunal - Tribunal d'appel de l'aménagement local. Issue Date: April 12, 2021. Case No(s): PL170756 <https://olt.gov.on.ca/tribunals/lpat/e-decisions/> and search for PL170756

3.5 The wrong quarry emission values were used in the cumulative studies produced by Colacem

Under cross-examination, Mr. Capstick (Colacem’s air quality expert witness), admitted that, for the 2016 emissions, he used 16.1 tonnes of Suspended Particulate Matter instead of 18 tonnes, which is the official value on record with the federal government. The Member making the Decision refers to this in his judgement:

[38] In his updated Cumulative Effects Study (“CES”) of November 2018, Mr. Capstick used quarry emissions data from 2016 for the Suspended Particulate Matter (“SPM”) emission rate with a value of 16.13 tonnes per year. Under cross-examination, Mr. Capstick acknowledged that the data point for 2016 is 18 tonnes per year and confirmed that he had been made aware of the 2017 emissions data before September 2018 when the hearing was originally scheduled. Mr. Capstick stated that he had learned of the new data through Mr. Sulley’s 2018 Reply statement.¹⁰

Mr. Sulley is Action Champlain’s air quality expert witness. Action Champlain was a party opposing the zoning changes during the Local Planning Appeal Tribunal hearings.

3.6 Colacem states that «CO, NO_x, SO₂, and D&F are only emitted from the kiln exhaust stack» which is absolutely erroneous.

CO is carbon monoxide
SO₂ is Sulphur dioxide

NO_x is nitrogen oxide
D&F are dioxins and furans

Colacem affirms, wrongly, that “The following two tables present the Project emissions summary. CO, NO_x, SO₂, and D&F are only emitted from the kiln exhaust stack.” Page 266, 513, 588¹⁰.

This statement is erroneous because:

- The 65 tonnes transport trucks that will bring raw material to the cement plant site from the quarry
- The 35 tonnes transport trucks that will bring raw material to the cement plant site from outside the Colacem property
- The 35 tonnes transport trucks that will deliver cement from the cement plant site
- Any other machinery that use diesel fuel on the Colacem property, including the quarry, **will all be emitting CO, NO_x, SO₂, and Dioxins and Furans through their tailpipe.**¹¹

Overall, on the quarry site and on the cement plant site, yearly, there will be:

¹⁰ Decision delivered by N.P. Robinson and order of the tribunal. Local Planning Appeal Tribunal - Tribunal d'appel de l'aménagement local. Issue Date: April 12, 2021. Case No(s): PL170756 <https://olt.gov.on.ca/tribunals/lpat/e-decisions/> and search for PL170756

¹¹ The Report on Diesel Exhaust - The California Air Resources Board <https://ww2.arb.ca.gov/sites/default/files/classic/toxics/dieseltac/de-fnds.htm> accessed May 9, 2022

- 40,822 trips of 65 tonnes extra heavy duty transport truck trips from the quarry to the cement plant site (includes return trips)
- 94,076 trips of 35 tonnes heavy duty diesel transport truck trips coming in and out of the proposed cement plant site per year (includes return trips)

And the operation of numerous pieces of machinery or equipment using diesel fuel will also generate these pollutants. Some of the machinery and equipment are:

- Loaders of raw material in the quarry
- Loaders unloading the raw material at the crusher
- Drill rigs
- Pumps
- Excavators
- Front loaders
- Graders

Even blasting will emit CO, NO_x, SO₂.¹²

None of the emissions from blasting, or from the machinery and equipment were taken into consideration when Colacem stated that: «CO, NO_x, SO₂, and D&F are only emitted from the kiln exhaust stack».

4. Omissions of facts

Colacem was asked to supply an Air Quality Cumulative Effects Study including emissions from:

- Colacem's proposed cement plant
- Colacem's quarry
- Colacem's asphalt plant (on the quarry site)
- Colacem's lime plant (on the quarry site)
- Ivaco Rolling Mills facility located 4 kilometres east
- Ambient atmosphere

¹² Projet d'implantation d'une cimenterie sur le territoire de Port-Daniel-Gascons. MISE À JOUR DE L'ÉTUDE DE RÉPERCUSSIONS SUR L'ENVIRONNEMENT. Document consolidé pour diffusion publique intégrant le rapport original et les analyses supplémentaires demandées par le MDDEFP. Annexes: VOLUME 2 (Annexe F) : Études sur la qualité de l'air. DOSSIER GENIVAR : 121-20440-00. Version finale Novembre 2013. 146 pages. Page 51. https://cimentmcinnis.com/wp-content/uploads/2016/08/Volume2_Annexe_F_20131106.pdf (Accessed May 5, 2021.)

4.1 The quarry's expected increase in limestone extraction was not taken into account

It is estimated that the quarry will increase its yearly production from the approximately 350,000 tonnes of limestone that it currently needs for its regular sales to 1,500,000 tonnes to supply the limestone to the proposed cement plant. This figure might be higher because, if the calculations in Appendix 1 are right, the cement plant alone will need 1,326,672 metric tonnes of limestone a year (Appendix 1, Table 1). Consequently, the total limestone extraction could be between 1,600,000 to 1,700,000 metric tonnes per year.

The Tribunal Member refers to this in his Decision:

[20] Mr. Bataille testified that the quarry is currently licensed to extract up to 3 million tonnes of limestone annually and will extract an estimated 1.5 million tonnes once the Plant is operational—a significant increase from extraction levels in previous years...¹³

The Local Planning Appeal Tribunal confirmed, in their Decision, that there are inconsistencies in values from the quarry.

During his testimony, Colacem's air quality expert witness, Mr. Capstick:

- **Admitted that he could have obtained more accurate information [32]**
- **Admitted that the tribunal cannot really assess adverse effects because additional data from the quarry has not been considered [33]**
- **Admitted values used for the quarry emissions were unrepresentative of the true emissions [34] to [38]¹³**

In choosing to use 2016 historic quarry emission values, Colacem's air quality expert witness used values that grossly underestimated the anticipated quarry emissions, as reported in the LPAT Decision extract below.

Colacem's air quality expert witness chose not to ask nor did he look into other source of pollution coming out of the quarry. He simply used values supplied by Colacem that were incorrect and incomplete, as written by the Member of the Local Planning Appeal Tribunal in his Decision.

[32] Mr. Capstick told the Tribunal that he could have obtained more accurate information from Colacem about the projected air emissions of the quarry but instead relied on NPRI data provided by Colacem. He reasoned that the quarry was already subject to separate approvals and licenses that were already in place irrespective of whether the Plant is constructed.

¹³ Decision delivered by N.P. Robinson and order of the tribunal. Local Planning Appeal Tribunal - Tribunal d'appel de l'aménagement local. Issue Date: April 12, 2021. Case No(s): PL170756 <https://olt.gov.on.ca/tribunals/lpat/e-decisions/> and search for PL170756

[33] Mr. Capstick also testified that the reports were originally prepared with several objectives but with the primary objective of obtaining an ECA. Mr. Capstick conceded, however, that the Tribunal would be in a better position to assess adverse effects if additional data from the quarry had been considered.

[34] Mr. Capstick was retained to perform an Emission Summary and Dispersion Modelling report (“ESDM”) of the cement Plant in isolation of the quarry, even though, on cross-examination, he agreed that:

1. At the time he was retained, he was aware that there was an active quarry adjacent to the proposed cement plant and that the quarry was owned by Colacem;
2. He was aware that a significant amount of aggregate would be hauled from the quarry to the cement Plant, and that the quarry’s production would go up as a result of the cement Plant’s operations, resulting in additional air emissions;
3. He could have obtained information from Colacem regarding air emissions from the quarry had he asked for it, which he did not in the context of preparing the ESDM.

[35] The Tribunal was informed that truck traffic on unpaved roads is an important source of fugitive dust emissions at the quarry and Mr. Capstick acknowledged that he did not model fugitive emissions resulting from truck traffic on the unpaved roads, and so could not say if those emissions would be significantly higher as a result of increased truck traffic. There is thus no evidence before the Tribunal on this point but Colacem points to a proposed Fugitive Dust Best Management Practices Plan (“BMPP”) which will minimize dust emissions.

[36] Mr. Capstick testified in relation to emissions from blasting in a revised version of his model, drawing on National Pollutant Release Inventory (“NPRI”) data. Mr. Capstick concluded that adding blasting emissions resulted in little difference to the air emissions from the quarry. On cross-examination, Mr. Capstick confirmed that the blasting emissions he used were not drawn on a blasting plan that would reflect the actual projected operations of the quarry. He also testified that the Plant is designed to not produce kiln dust and that quarry activities would be curtailed on days that blasting occurs.

[37] Mr. Capstick testified that the historical values inputted into the model were from years in which the annual air emissions rates were the lowest and that a “conservative” approach had been taken with respect to modelling inputs.

[38] In his updated Cumulative Effects Study (“CES”) of November 2018, Mr. Capstick used quarry emissions data from 2016 for the Suspended Particulate Matter (“SPM”) emission rate with a value of 16.13 tonnes per year. Under cross-examination, Mr. Capstick acknowledged that the data point for 2016 is 18 tonnes per year and confirmed that he had been made aware of the 2017 emissions data before September 2018 when the

hearing was originally scheduled. Mr. Capstick stated that he had learned of the new data through Mr. Sulley's 2018 Reply statement.

Mr. Capstick is Colacem's air quality expert witness
Mr. Sulley is Action Champlain air quality expert witness.

The Ontario Ministry of the Environment, Conservation and Parks (MECP) had requested a Cumulative Effects Study (CES) from Colacem.

Mr. Capstick, in paragraph [32] above, said that "He reasoned that the quarry was already subject to separate approvals and licenses that were already in place irrespective of whether the Plant is constructed." **This is true but it fails to give an accurate estimation of the quarry's contribution to the Cumulative Effects Study, as requested by the MECP.**

In paragraph [33] above, "Mr. Capstick conceded, however, that the Tribunal would be in a better position to assess adverse effects if additional data from the quarry had been considered." **This is also true for the MECP request, which was consequently not done as required.**

Mr. Capstick, in paragraph [34] above, said that "He could have obtained information from Colacem regarding air emissions from the quarry had he asked for it, which he did not in the context of preparing the ESDM." **This is a reasonable explanation for the Emission Summary and Dispersion Modelling report but then, absolutely no effort was made to comply with the request to do an accurate and proper Cumulative Effects Study, as required from the MECP.**

In paragraph [35], in reference to traffic on unpaved roads, the Member wrote: "There is thus no evidence before the Tribunal on this point but Colacem points to a proposed Fugitive Dust Best Management Practices Plan ("BMPP") which will minimize dust emissions." **Such a plan does not exist for the quarry or it was never made available to the public. It only exists for the proposed cement plant where all roads are paved. The quarry is not even mentioned in the Environmental Compliance Approval that was granted to Colacem.**¹⁴

In paragraph [36], the Member reports: "Mr. Capstick concluded that adding blasting emissions resulted in little difference to the air emissions from the quarry. On cross-examination, Mr. Capstick confirmed that the blasting emissions he used were not drawn on a blasting plan that would reflect the actual projected operations of the quarry."

In one of the reports, Colacem wrote: "emissions related to blasting were not included in the model as blasting only occurred 12 times during the reporting year and during blasting no other quarry operations occurred".¹⁵

¹⁴ Instrument type: Environmental Compliance Approval (air). ERO number: 012-8124
<https://ero.ontario.ca/notice/012-8124>

¹⁵ Colacem - Witness Statement - Sean Capstick (Air) 18Sep2020.pdf Page 589.

The operating year was 2016 and the quarry would have to extract more limestone to supply the proposed cement plant once it is operational. This means that there could be between 36 and 48 blasting per year once the cement plant is operational.

Again, absolutely no effort was made to comply with the request to do an accurate and proper Cumulative Effects Study, as demanded by the MECP.

4.2 Activities that were not taken into account

On the proposed cement plant site

There will be:

- 40,822 trips per year of 65 tonnes extra heavy duty diesel transport truck from the quarry to the cement plant site (on paved roads, includes return trips)
- 94,076 trips of 35 tonnes heavy duty diesel transport truck coming in and out of the proposed cement plant site per year (on paved roads, includes return trips)
- There will be loaders and various other machinery and equipment that burn diesel fuel

All of these will be emitting numerous different pollutants while they are on Colacem's property. In the case of the 35 tonnes trucks, it will be from the public road until they leave the property. The emissions of all these should be identified, quantified, and added to the cumulative effect study.

On the quarry site

There will be

- 40,822 trips per year of 65 tonnes extra heavy duty transport truck from the quarry to the cement plant site on unpaved roads
- Loaders of raw material in the quarry
- Drill rigs
- Excavators
- Front loaders
- Graders
- Pumps
- Any other machinery that use diesel fuel in the quarry
- Blasting

All of these will be emitting numerous different pollutants while they are operating in the quarry. The emissions of all these should have been identified, quantified, and added to the cumulative effect study as originating from the quarry and its operation.

Colacem should have compiled a detailed source of the type of machinery that has a diesel engine and their emissions considering the intensity of their usage on the cement plant site and in the quarry. They should also have considered the emissions of their transport and operating on the quarry gravel road or their stationary activities in the quarry.

Without this information the Study cannot be considered as a “Revised Air Quality Cumulative Effects Study” since it did not take into account the heavy industrial machinery’s tailpipe exhaust emission and the fugitive dust emissions that they cause driving on the asphalted cement plant road and on the quarry’s unpaved roads, which are not even mentioned in the study.

Overall, Colacem only detailed the cement plant activities, not that of the quarry as it will have to operate once it supplies limestone to the cement plant.

Considering the potential importance of the quarry’s activities emissions, the transport trucks emissions, the diesel machinery or equipment emissions, the blasting emissions, it cannot be concluded that the Cumulative Effects Study submitted by Colacem, as stipulated by the MECP, is accurate and credible.

5. Misrepresentation of facts

Colacem misrepresented the daily quarry activities by 240 %.

All along, Colacem kept declaring to the Ontario Ministry of the Environment, Conservation and Parks that they were using a conservative approach in over-estimating emissions from the quarry. In fact, they wrote that “the quarry is assumed to operate 24 hours per day, 365 days per year.” as reported by the Member of the Local Planning Appeal Tribunal in his Decision:¹⁶

[41] In Golder’s August 2017 CES, Mr. Capstick stated that “the quarry is assumed to operate 24 hours per day, 365 days per year.”

[42] This evidence was similarly repeated in the CES dated May 28, 2018:

It was assumed that Ivaco Rolling Mills operates 365 days per year, 24 hours per day and that production was constant (i.e. operations do not vary significantly day-to-day). Operating schedule for activities at the Colacem Quarry were provided by Colacem and indicated that dust collectors for the different processes operated less than 24 hours per day (with their respective number of hours and days of operations per year) while the quarry could operate 24 hours per day, 365 per year.

¹⁶ Decision delivered by N.P. Robinson and order of the tribunal. Local Planning Appeal Tribunal - Tribunal d’appel de l’aménagement local. Issue Date: April 12, 2021. Case No(s):PL170756 <https://olt.gov.on.ca/tribunals/lpat/e-decisions/> and search for PL170756

Based on the information available, the maximum operation scenario is identical to the operating scenario for the Existing Facilities.

[43] On cross-examination, when asked about the assumption set out in the August 2017 CES, Mr. Capstick told the Tribunal that this version had been superseded by the November 2018 CES. This stated, the November 2018 CES also mentions that it was assumed, for the purposes of the maximum emissions scenario, that the quarry operated 24 hour per day: “The quarry is assumed to operate 24 hours per day, 365 days per year”.

[44] On redirect, Mr. Capstick restated under oath that it was assumed the quarry operated 10 hours per day, and that what was stated in the documents contained in his witness statement should have been corrected.

[45] Mr. Capstick’s correction under oath implies that he may have misstated the conservativeness of his model to the MECP which granted the ECA.

Mr. Capstick is Colacem’s air quality expert witness

In reality, they modelled emissions based on the quarry operating 10 hours a day instead of the 24 hours a day that they repeatedly stated in their texts.

This is very misleading since it means that they actually misrepresented quarry daily activities by 240 % (10 hours vs 24 hours a day) when they submitted their reports to the regulators.

6. The Cumulative Effects Study (CES) submitted by Colacem does not truly reflect how the proposed cement plant will operate

There are sufficient errors of facts, omission of facts, and proof of misrepresentation of facts to invalidate the Cumulative Effects Study (CES) that Colacem submitted to the Ontario Ministry of the Environment, Conservation and Parks (MECP).

Mr. Sulley, who is the air quality expert witness for the Party appealing the zoning change, Action Champlain, is quoted by the Tribunal Member in his Decision:¹⁷

[48] Mr. Sulley summarized his concerns about the approach taken by Colacem and Golder by stating that “the problem is that we don’t actually have an assessment that says what [plant operations will be like]”.

[49] According to Mr. Sulley, differences in the data inputted into the model used by Mr. Capstick causes concern that the CES underpredicts potential impacts.

[54] Mr. Sulley’s testimony was critical of the modelling methodology used by Mr. Capstick.

[207] Despite these concessions, Mr. Sulley took issue with the Air CES on the basis that it: (i) contained certain minor errors; (ii) was completed using publicly available NPRI data for the Colacem quarry, rather than the actual measurement of emissions sources at the quarry through the preparation of a **joint ESDM**; and (iii) the fact that the Air CES did not fully account for the increased extraction of limestone at the quarry to be used by the Plant once it is operational.

[208] Mr. Sulley summarized his concerns by saying that the Plant has not been “assessed as it will operate”. In short, Mr. Sulley worries that the inputs and assumptions used in generating the modelling were imperfect.

Mr. Sulley is Action Champlain’s air quality expert witness at the hearings.

Joint ESDM stands for the Emission Summary and Dispersion Modelling Report of the proposed cement plant and of the quarry, which was not done.

¹⁷ Decision delivered by N.P. Robinson and order of the tribunal. Local Planning Appeal Tribunal - Tribunal d’appel de l’aménagement local. Issue Date: April 12, 2021. Case No(s): PL170756 <https://olt.gov.on.ca/tribunals/lpat/e-decisions/> and search for PL170756

Mr. Capstick's testimony, the air quality expert witness for Colacem, also concurs with the statements above. He is quoted by the Tribunal Member in his Decision:¹⁷

[33] Mr. Capstick also testified that the reports were originally prepared with several objectives but with the primary objective of obtaining an ECA. Mr. Capstick conceded, however, that the Tribunal would be in a better position to assess adverse effects if additional data from the quarry had been considered.

The MECP would also be in a better position to assess adverse effects if additional data from the quarry had been considered. **Consequently, the Cumulative Effects Study can be considered as erroneous.**

Basically, the conclusions of both air quality expert witness is that the Ontario Ministry of the Environment, Conservation and Parks (MECP) did not receive the information that it needed to allow it to make an informed decision concerning the proposed cement plant projected cumulative emissions with the emissions from the quarry.

Appendix 5

The Ontario Minister of the Ministry of the Environment, Conservation and Parks (MECP) refuses to reconsider the Environmental Compliance Approval despite the errors and omissions exposed during the Local Planning Appeal Tribunal hearings

Considering the errors of facts, the omissions of facts and misrepresentation of fact, numerous groups and citizens believe that the Ontario Ministry of the Environment, Conservation and Parks (MECP) did not receive the information that it needed to allow it to make an informed decision concerning the adverse effects of the proposed cement plant projected cumulative emissions, especially with the emissions from the quarry.

Consequently, numerous letters were sent to the Ontario Minister of the Ministry of Environment, Conservation and Parks (MECP) asking that Colacem's Environmental Compliance Approval (ECA) be revoked because of the errors of facts, the omissions of facts and misrepresentation of fact. Most also asked that a new ECA application with trustworthy and accurate facts be requested from Colacem.

In 2021, the local Member of Parliament (MP), Francis Drouin, Glengarry-Prescott-Russell, and the Member of Provincial Parliament (MPP), Amanda Simard, Glengarry-Prescott-Russell, asked the Ontario Minister of the Ministry of Environment, Conservation and Parks to revoke Colacem's Environmental Compliance Approval (ECA) and to require a new application.

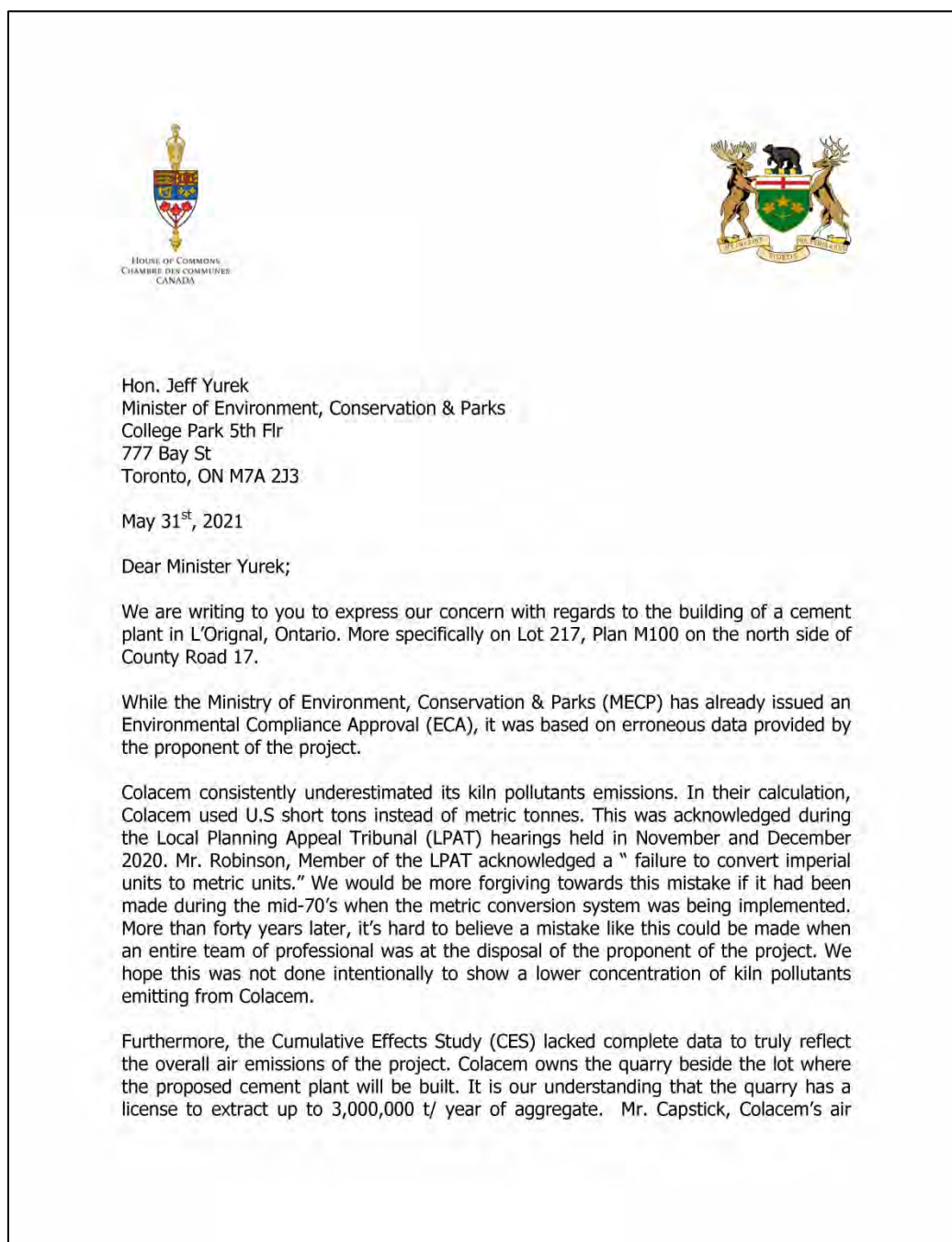
The Champlain Township (lower-tier municipality) asked for a very similar action from the Ontario Minister of the Ministry of Environment, Conservation and Parks application.

For both case and for every citizen's letters, Minister Piccini declined to revoke the Environmental Compliance Approval that has been granted to Colacem.

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1. Copy of the letter from the local Member of Parliament (MP), Francis Drouin , Glengarry-Prescott-Russell , and the Member of Provincial Parliament (MPP), Amanda Simard, Glengarry-Prescott-Russell, dated May 31, 2021.



Page 1 of the “Copy of the letter from the local Member of Parliament (MP), Francis Drouin , Glengarry-Prescott-Russell , and the Member of Provincial Parliament (MPP), Amanda Simard, Glengarry-Prescott-Russell, dated May 31, 2021.”

quality expert hired to perform the CES, acknowledged at the LPAT hearing that he did not factor in the increased amount of output from the quarry to accurately calculate the air emissions. In fact, he used the National Pollutant Release Inventory (NPRI) of 2016. This approach clearly fails to take into account the increased amount of production from the quarry to supply the cement plant. The pollutants emitted from the quarry are estimated to be at least three times greater than the 2016 values.

In addition, when Colacem submitted its CES report to the MECP, they wrote that the quarry emissions were modelled conservatively, assuming it would be operating 24 hours a day, 365 days per year. Mr. Capstick acknowledged under oath at the LPAT hearing that in reality, they only used a 10 hours a day, 365 days per year basis. Even when modelled with extremely underestimated quarry emissions, one of the CES scenarios predicts that the Ontario's Ambient Air Quality Criteria will be exceeded at least every two weeks outside Colacem's property limit. This breach would likely be much more frequent if they use realistic quarry emissions values in the models.

Minister, Premier Legault acknowledged publicly in March 2021 that it was a catastrophe to have built a cement plant in Port-Daniel-Gascons. The promises made by the company have yet to materialize. This has had a major negative impact on the community of Port-Daniel-Gascons. We want to avoid this situation in our community before it's too late.

We are asking you to revoke the ECA as too many significant errors were committed by the proponents of the project. An ECA should be issued based on facts and supporting evidence. While the LPAT may not be the appropriate body to deal with issues surrounding the approval process for the ECA, it did highlight the miscalculations used by Colacem to obtain its ECA. We, as elected representatives, have a responsibility to ensure the decision-making process is based on factual statements.

Statements made in this letter are supported by evidence provided during the LPAT hearing and expert testimony. Minister, we would be happy to share further information at your request.

Sincerely,



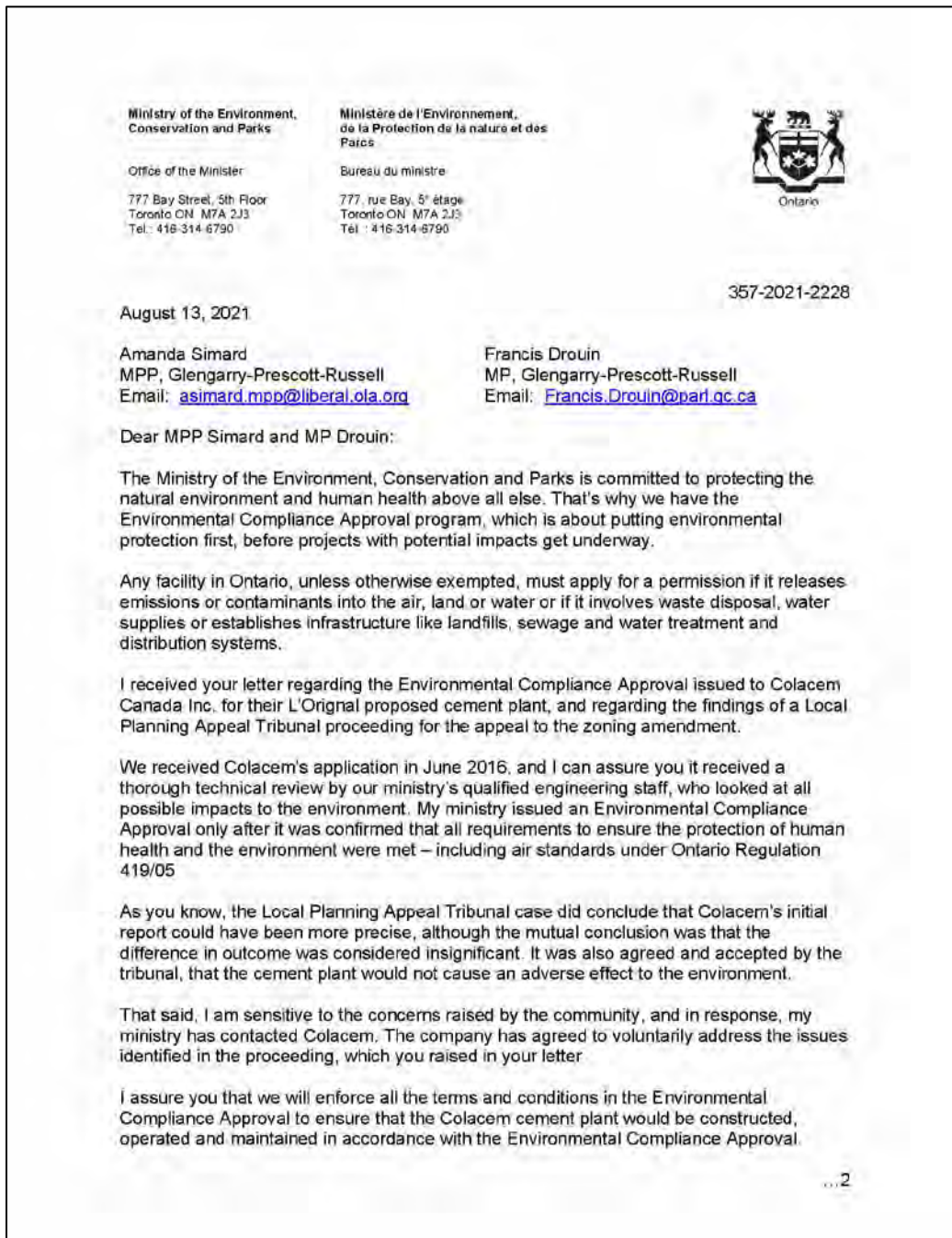
Amanda Simard, MPP
Glengarry-Prescott-Russell



Francis Drouin, MP
Glengarry-Prescott-Russell

Page 2 of the “Copy of the letter from the local Member of Parliament (MP), Francis Drouin , Glengarry-Prescott-Russell , and the Member of Provincial Parliament (MPP), Amanda Simard, Glengarry-Prescott-Russell, dated May 31, 2021.”

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Page 1 of the “Copy of the reply letter from the Ontario Minister Piccini of the Ministry of Environment, Conservation and Parks, dated August 13, 2021”

Amanda Simard and Francis Drouin
Page 2.

We take our obligations to protect the environment seriously, and we also recognize that it is important for Ontario to be open for business in order to bring jobs and investment to the province in this time of recovery. We will always make sure that Ontario's rigorous environmental standards are met and that our decisions are based on the most up-to-date science and evidence. We will continue to take steps that reduce regulatory burden and modernize regulatory compliance for industry, but at no point will we compromise the health and safety of any Ontarian or our natural environment.

Thank you again for writing.

Sincerely,

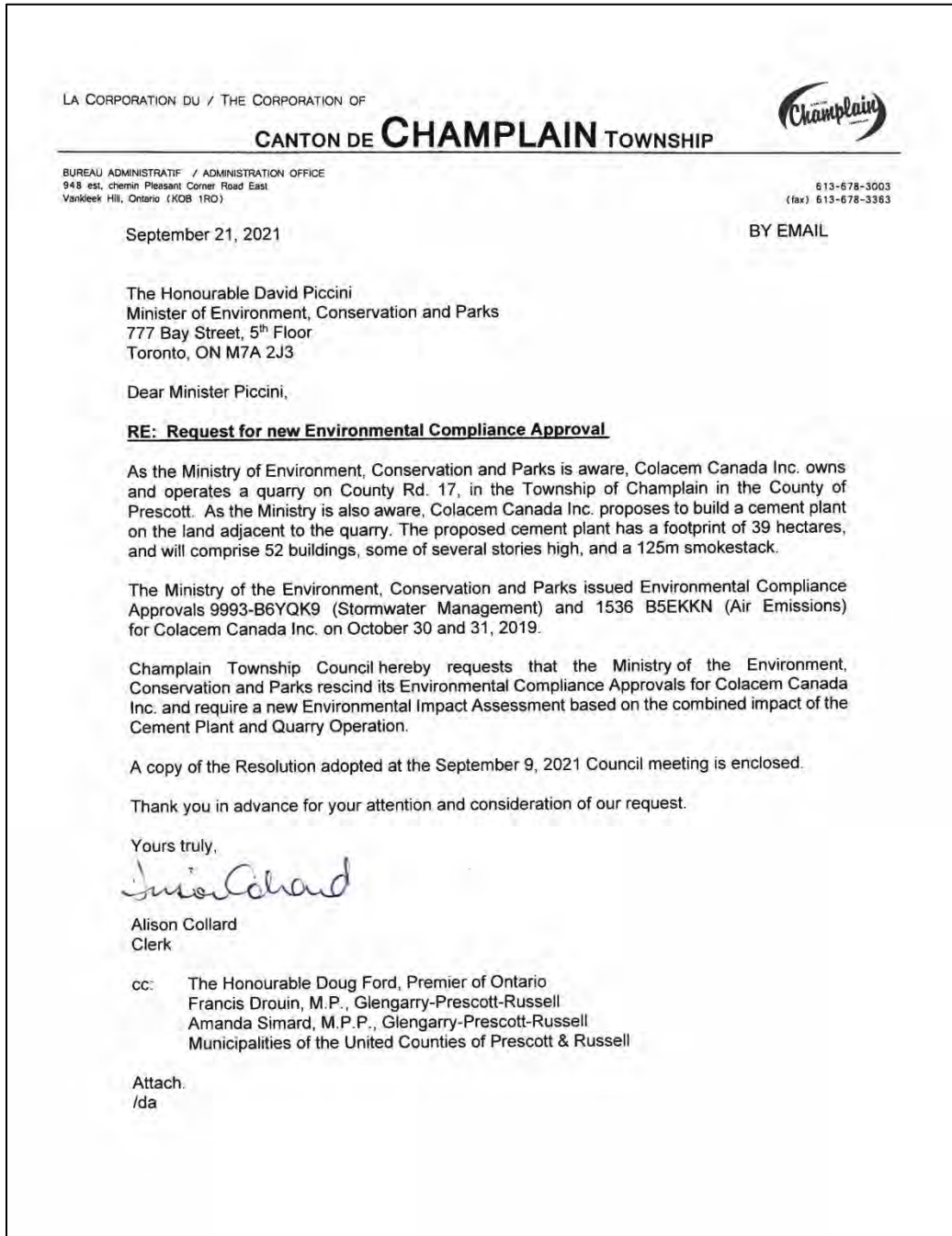
A handwritten signature in black ink, appearing to read 'D. Piccini', with a horizontal line extending to the right.

David Piccini
Minister of the Environment, Conservation and Parks

c: Neryed Ragbar, P. Eng., Manager, Air Approvals Unit, MECP
Michael Seguin, Area Supervisor, Cornwall Area Office, MECP

Page 2, of the “Copy of the reply letter from the Ontario Minister Piccini of the Ministry of Environment, Conservation and Parks, dated August 13, 2021”

3. Copy of the letter from the Champlain Township (lower-tier municipality), dated August 13, 2021



Page 1 of the “Copy of the letter from the Champlain Township (lower-tier municipality), dated August 13, 2021”



TOWNSHIP OF CHAMPLAIN

RESOLUTION
REGULAR MEETING

Agenda Number: 10.1
Resolution Number 2021-417
Title: Request for new Environmental Compliance Approval - Colacem Canada Inc.
Date: September 9, 2021

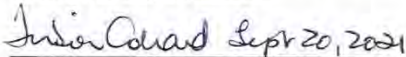
Moved By: Violaine Tittley
Seconded By: André Roy

BE IT RESOLVED THAT Council request the Ministry of the Environment, Conservation and Parks rescind its Environmental Compliance Approvals for Colacem Canada Inc. and require a new Environmental Impact Assessment based on the combined impact of the Cement Plant and Quarry Operation.

BE IT FURTHER RESOLVED that this resolution be sent to the Premier of Ontario, the Minister of the Environment, Conservation and Parks, the local MPP, to the MP and local area municipalities.

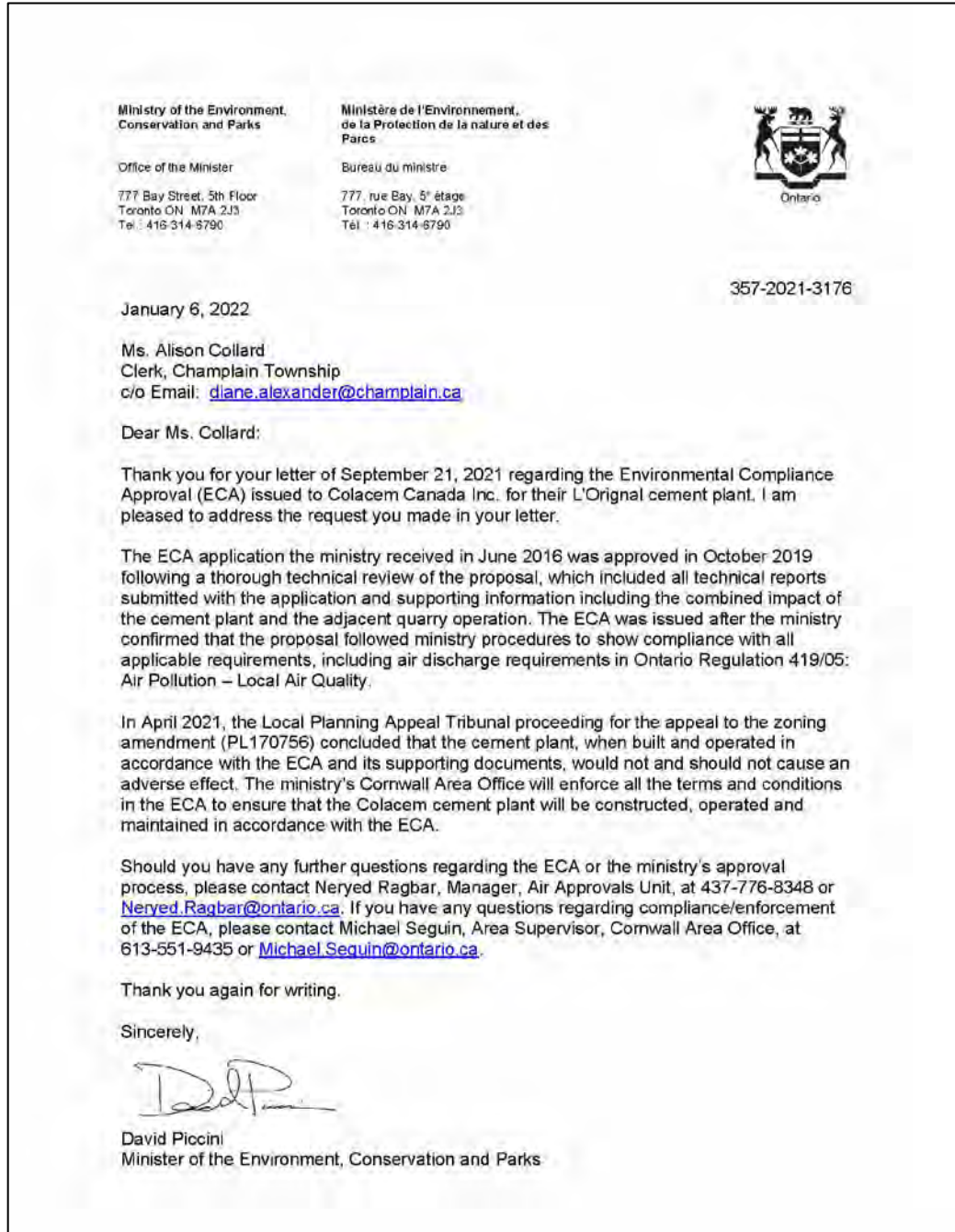
CARRIED

Certified True Copy of Resolution


Alison Collard, Clerk Date: Sept 20, 2021

Page 2 of the “Copy of the letter from the Champlain Township (lower-tier municipality), dated August 13, 2021”

4. Copy of the reply letter from the Ontario Minister Piccini of the Ministry of Environment, Conservation and Parks, dated January 6, 2022.



Page 1 of the “Copy of the reply letter from the Ontario Minister Piccini of the Ministry of Environment, Conservation and Parks, dated January 6, 2022.”

c' The Honourable Doug Ford, Premier of Ontario
Francis Drouin, MP, Glengarry-Prescott-Russell
Amanda Simard, MPP, Glengarry-Prescott-Russell
Municipalities of the United Counties of Prescott & Russell
Neryed Ragbar, P. Eng., Manager, Air Approvals Unit, MECP
Michael Seguin, Area Supervisor, Cornwall Area Office, MECP

Page 2 of “Copy of the reply letter from the Ontario Minister Piccini of the Ministry of Environment, Conservation and Parks, dated January 6, 2022.”

Appendix 6

Environmental risks caused by the emissions of the proposed cement plant

1. Summary

Environmental risks of the pollutant emissions

Colacem's project will be discharging 96 different pollutants in our environment either through kiln smokestack emissions or through fugitive emissions from raw materials or by both.

Overall, of the 62 different pollutants that are emitted through the kiln smokestack and that are problematic:

- 29% are known to be carcinogenic or possibly carcinogenic to animals
- 34% are classified as toxic or very toxic to aquatic organisms
- 22% may be hazardous to the environment or it is strongly advised that this substance does not enter the environment
- 24% accumulate in plants or animals

More specifically:

- The proposed cement plant will be emitting 7.05 metric tonnes a day of nitrogen oxides. Nitrogen oxides, when not converted to nitric acid, can act as a nitrogen fertilizer in the environment. This can cause eutrophication of waterways. On terrestrial ecosystems, it can promote the growth of some plant species to the detriment of other species, breaking an equilibrium that might have taken centuries or more to reach.
- In addition, nitrogen oxides (NO_x, 7.05 tonnes a day) combined with sulfur oxides (SO_x, 3.67 tonnes a day) will be having a combined mass of 10.72 metric tonnes a day of pollutants that can produce acid rain,
- 15 different volatile organic compound (VOC) will be emitted by the proposed cement plant. Some of which are dangerous to human health or cause harm to the environment
- 15 different polycyclic aromatic hydrocarbon (PAH) will be emitted by the proposed cement plant. Cancer is a primary human health risk of exposure to PAHs and it has been linked to cardiovascular disease and poor foetal development
- The proposed cement plant will be emitting 2 different phthalates. One of these is considered as a Probable Human Carcinogen and there is sufficient evidence of carcinogenicity in animals. It is also considered as an endocrine disruptor. The other phthalate is a suspected endocrine disruptor in animals.

- There are 15 pollutants that will be emitted by Colacem that can be bio-accumulated and that are toxic or carcinogenic. They have the potential to be bio-accumulated in plants, milk, fish, meat and eggs and can contaminate our food-chain. They can also contaminate the fish caught in the Ottawa River.
- Ground level ozone is the result of photochemical reactions between NO_x and volatile organic compounds (VOCs), both of which will be emitted from the Colacem proposed cement plant. Ozone can affect sensitive vegetation and ecosystems, including forests, parks, wildlife refuges and wilderness areas. In particular, ozone can harm sensitive vegetation during the growing season.

Colacem's field inventory/survey was very limited

Colacem's field inventory/survey was limited to only the 56 hectares of the immediate site where the cement plant will be built. This represents 26% of Colacem's property. Furthermore, the surveys were only done in a single year, 2015, at one to four different dates only, depending on the type of survey and only at a few locations within the 56 hectares. Additionally, several types of surveys were combined and conducted at the same time. Overall, the site was only visited at 6 different times in 2015.

Considering the scale of the proposed cement plant project, there should have been more surveys done, ideally several times within each season of the year, and for several years to truly characterize and identify all the wildlife present. Also it should have been done on the entire property, including the **significant woodlands and the wetlands on Colacem's site** itself, and the ones adjacent to the property to truly determine what fauna and flora are present. **See Section 4 and 5 below for full details and references.**

The person that did Colacem's field inventory/survey mentioned that some endangered, threatened and special concern species might be in the "**significant woodland**" present either on the quarry side of the property, on the proposed cement plant site, or on properties adjacent. The same could probably be said for the **wetlands** on Colacem's property or adjacent to the property.

Ecosystems of particular concern are:

- the Ottawa River which is less than 2 km North where thousands of migratory birds are observed in the spring and in the fall,
- the Alfred Bog (the most significant peatlands in all of Eastern Ontario), managed by Ontario Parks as a Provincial Nature Reserve, 9 km away West,
- Atocas Bay Conservation Project managed by Ducks Unlimited (wetlands, 8 km away West),
- Pumpkinseed Bay, located in Quebec (bird staging location with over 200 different bird species recorded, 7 km away East)

These sites are all important ecosystems that support an abundance of plant life, animals, fish, native birds and migratory birds. Millions of dollars have been invested by governments and private groups in preserving and restoring ecosystems in this area. The proposed cement plant emissions constitute an important threat to these sites.

These sites should be included in any environmental impact assessment study to truly evaluate the potential adverse effects of the proposed cement plant.

There are 14 Federally-listed Endangered, Threatened and Special Concern species that were observed on Colacem's site or in the area

Overall there are 14 species currently listed as at risk species that were observed on Colacem's site or in the area. There are 3 Endangered species, 6 Threatened species and 5 Special Concern species federally-listed. A 15th species is under consideration for addition and it is currently listed as endangered by the Ontario government.

Risks of potential overflow, overspill, discharge, and runoff of contaminated water

Extreme weather events are becoming more frequent with climate change. The risks of potential overflow, overspill, discharge, and runoff of contaminated water from the proposed cement plant site directly in the drain Charlebois and then in the Ottawa River are extremely high. There does not seem to be any contingency measures in place to prevent damage to the environment.

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2. Introduction

The proposed cement plant project is of an unprecedented scale in the region and has the potential to inflict **Significant Adverse Environmental Effects** through its kiln smokestack emissions, through its fugitive emissions and through its activities.

This appendix starts by examining the environmental risks of the proposed project's pollutant emissions. It is then followed by a look at the ecosystems present on Colacem's property with a review of the field inventory/survey conducted by Colacem on their property.

This discussion is followed by a presentation of several federally-listed species at risk that have been observed on the site of the proposed project or in the area. After that we discuss the area's major ecosystems of major importance and conclude with a discussion on the risks of weather extremes and their effect on potential overflow, overspill, discharge, and runoff of contaminated water from Colacem's property to the Ottawa River.

3. Environmental risks of the pollutant emissions

The full list of the 95 pollutants that will be emitted either through the kiln smokestack emissions or through the fugitive emissions from raw materials or by both are listed in Appendix 1, Section 4.9. One pollutant that is not listed is ozone (O₃). Ozone is the result of photochemical reactions between NO_x and volatile organic compounds (VOCs), both of which will be emitted from the Colacem proposed cement plant.

Overall, the proposed cement plant will be emitting 72 different pollutants through its kiln smokestack. Of these, 62 have a CAS number¹:

- 29% of which are known to be carcinogenic or possibly carcinogenic to animals
- 34% are classified as toxic or very toxic to aquatic organisms
- 22% may be hazardous to the environment or it is strongly advised that this substance does not enter the environment
- 24% accumulate in plants or animals

The full details of the pollutants risks are fully presented in Appendix 3. A short summary is in Table 1 below.

¹ CAS Registry Number is a unique numerical identifier assigned by Chemical Abstracts Service (CAS) to every chemical substance described in the open scientific literature

Table 1. Summary of the potential effect on the environment from some of the inorganic and organic pollutants that will be emitted by the smokestack of the kiln of the proposed cement plant (see Appendix 3 for full details and references).

Risks ^A	Organic pollutant	Inorganic pollutant	Combined
Total number of pollutants with a CAS number ¹	36	26	62
Carcinogenic to animals	13	4	17
Possibly carcinogenic to animals	1		1
Toxic to animal	1		1
Very toxic to aquatic organism	7	3	10
Toxic to aquatic organism	9	2	11
Harmful to aquatic organisms	2	1	3
Accumulates in plants or animals	10	5	15
May be hazardous to the environment	9	3	12
It is strongly advised that this substance does not enter the environment	7	1	8

^A A compound can have more than one risk associated with it. The full details of the risks are presented in Appendix 3.

3.1 Particulate matter pollution

The proposed cement plant will be emitting 690 kilograms of suspended particulate matter (SPM) a day. This represents 230 metric tonnes a year of suspended particulate matter and 11,500 tonnes for the first 50 years that the cement plant will be in operation (Appendix 1, Table 11).

Climates are greatly affected by particulate matter and they contribute to the rise in global temperature.²³

Particulate matter can be very detrimental to the vegetation. It decreases the amount of light absorbed for photosynthesis and it decreases growth and development of vegetation. When particulate matter alters optical properties of snow-covered surfaces, it can lead to vegetation surface temperatures 4 to 11.5 C above ambient environments, which can kill trees if they start to grow in the winter or too early in the spring.²

It can also cause health issues and deaths in animals.⁴

² National Research Council 2010. Global Sources of Local Pollution: An Assessment of Long-Range Transport of Key Air Pollutants to and from the United States. Washington, DC: The National Academies Press. <https://doi.org/10.17226/12743>.

³ Doley, David. (2006). Airborne particulates and vegetation: Review of physical interactions. Clean Air Environ. Quality. 40:36-42.

⁴ Jonathan E. Thompson, . 2018. Airborne Particulate Matter: Human Exposure & Health Effects. Journal of Occupational and Environmental Medicine. 60:392-423

According to the EPA, particles (particulate matter), depending on their chemical composition, may:⁵

- make lakes and streams acidic,
- change the nutrient balance in large river basins,
- deplete the nutrients in soil,
- damage sensitive forests,
- affect the diversity of ecosystems,
- contribute to acid rain effects.⁵

3.2 Carbon monoxide (CO) pollution

The proposed cement plant would increase the emissions of this pollutant more than 41 times that is currently being emitted in the area for a total of 7.35 tonnes a day (2,447 tonnes a year) (Appendix 1, Table 11).

Carbon monoxide is a poison to birds, to fish, and to mammals. It is impossible to determine the extent of danger that these emissions will have on the surrounding ecosystems but they might cause some fauna deaths or illnesses.

3.3 Nitrogen oxides (NO_x) pollution

The proposed cement plant will be emitting 7.05 metric tonnes a day of nitrogen oxides (NO_x) for a total of 2,348 tonnes a year. These emissions will add up to 117,400 metric tonnes of potential eutrophication pollutants or acid rain for the first 50 years that the cement plant will be in operation (Appendix 1, Table 11).

Nitrogen oxides, commonly referred to as NO_x, are very serious pollutants.⁶⁷⁸

Nitrogen oxides are broken down rapidly in the atmosphere by reacting with other substances commonly found in the air.⁶ The reaction of nitrogen dioxide with chemicals produced by sunlight leads to the formation of **nitric acid**, which is a major constituent of acid rain. Nitrogen dioxide also reacts with sunlight, which leads to the formation of **ozone** and **smog** conditions in the air we breathe. Small amounts of nitrogen oxides may evaporate from water, but most of it

⁵ Particulate Matter (PM) Pollution. Health and Environmental Effects of Particulate Matter (PM). Health Effects. <https://www.epa.gov/pm-pollution/health-and-environmental-effects-particulate-matter-pm>. Sept. 10, 2020

⁶ Toxic Substances Portal - Nitrogen Oxides - ToxFAQsTM for Nitrogen Oxides <https://www.atsdr.cdc.gov/toxfaqs/faq.asp?id=396&tid=69>. Sept. 10, 2020

⁷ Nitrogen Oxides (NO_x), Why and How They Are Controlled. November 1999. Technical Bulletin EPA-456/F-99-006R. Prepared by Clean Air Technology Center (MD-12). Information Transfer and Program Integration Division. Office of Air Quality Planning and Standards. U.S. Environmental Protection Agency. Research Triangle Park, North Carolina 27711. 57 pages. <https://www3.epa.gov/ttn/catc/dir1/fnoxdoc.pdf>

⁸ Nitrogen Dioxide (NO₂) Pollution <https://www.epa.gov/no2-pollution/basic-information-about-no2>. Sept. 10, 2020

will react with water and form nitric acid. When released in the soil the same phenomenon might occur.

According to the EPA, NO₂ and other NO_x interact with water, oxygen and other chemicals in the atmosphere to form acid rain. Acid rain harms wildlife and sensitive ecosystems such as lakes and forests (see section 3.5 on acid rain below). NO_x in the atmosphere contributes to nutrient pollution of ecosystems.⁸

Nitrogen fertilizer

Nitrogen oxides, when not converted to nitric acid, can act as a nitrogen fertilizer to freshwater ecosystems. This nitrogen enrichment causes the eutrophication of rivers and lakes by stimulating excessive plant and algae growth (algal blooms). When that plant material decays, it depletes the oxygen in the water, killing aquatic life (fish and plants). Eutrophication leads to decreases in the number of different fish species and in the number of fish, and potentially to the disappearance of fish and plants.⁹

When this NO_x, as a nitrogen fertilizer, lands on the soil of forests, bogs, or of other ecosystems, it can drastically alter plant populations. It has the potential to promote the growth of some plant species to the detriment of other species, breaking an equilibrium that an ecosystem might have taken centuries or more to reach. This is a very serious threat to all the conservation areas in our region, including the Ottawa River.

3.4 Sulphur oxides (SO_x) pollution

The proposed cement plant will be emitting 3.67 metric tonnes a day of sulfur oxides (SO_x) for a total of 1,224 metric tonnes a year (Appendix 1, Table 11).

According to the EPA (US Environmental Protection Agency), sulfur dioxide (SO₂) is one of a group of gases called sulfur oxides (SO_x). All of these gases are harmful to animal health and to the environment.¹⁰ Sulfur dioxide (SO₂) is a colorless, reactive air pollutant with a strong odor. This gas can be a threat to animal health, and plant life.¹¹

Sulfur dioxide (SO₂) is a toxic gas with a pungent, irritating smell. It is converted in sulfuric acid in the presence of water. Sulfur dioxide emissions are a precursor to acid rain (sulfuric acid) and atmospheric particulates.¹² It contributes to the formation of acid rain (see section 1.5 on acid rain).

⁹ U.S. Environmental Protection Agency (EPA). 2008. Integrated Science Assessment Oxides of Nitrogen and Sulfur Ecological Criteria. EPA/600/R-08/082F. 898 pages.

¹⁰ Sulfur Dioxide (SO₂) Pollution. United States Environmental Protection Agency web site <https://www.epa.gov/so2-pollution/sulfur-dioxide-basics>. Sept. 10, 2020

¹¹ Sulfur Dioxide Effects on Health. <https://www.nps.gov/subjects/air/humanhealth-sulfur.htm>. Sept. 10, 2020

¹² Agency for Toxic Substances and Disease Registry (ATSDR) - Toxic Substances Portal - Sulfur Dioxide

3.5 Acid rain

Acid rain is caused by nitrogen oxides (NO_x) and by sulfur oxides (SO_x). The proposed cement plant will be emitting a combined mass of 10.72 metric tonnes a day of nitrogen oxides (NO_x) and of sulfur oxides (SO_x) for a total of 3,570 tonnes a year. These emissions will add up to 178,500 metric tonnes of potential acid rain pollutants for the first 50 years that the cement plant will be in operation (Appendix 1, Table 11).

Acid rain causes damages to the environment, to water bodies, to forests, and to soils. It was the major factor in the decline of sugar maples last century. It can also cause a severe thinning of eggshells or even their complete disappearance in wild birds.¹³

Another devastating effect of acid rain is that it acidifies lakes and streams. Once acidified, lakes and streams become unsuitable for fish, it decreases species richness, community composition, and biodiversity in freshwater ecosystems.

Under our local climate, acid rain can also cause “Episodic Acidification” when the snow melts or after heavy rain. This can cause a surge in acid water washing down into rivers and lakes, severely disturbing ecosystems.

According to the EPA:¹⁴

Effects of Acid Rain on Fish and Wildlife

The ecological effects of acid rain are most clearly seen in aquatic environments, such as streams, lakes, and marshes where it can be harmful to fish and other wildlife. As it flows through the soil, acidic rain water can leach aluminum from soil clay particles and then flow into streams and lakes. The more acid that is introduced to the ecosystem, the more aluminum is released.

Effects of Acid Rain on Plants and Trees

Dead or dying trees are a common sight in areas effected by acid rain. Acid rain also removes minerals and nutrients from the soil that trees need to grow. At high elevations, acidic fog and clouds might strip nutrients from trees’ foliage, leaving them with brown or dead leaves and needles. The trees are then less able to absorb sunlight, which makes them weak and less able to withstand freezing temperatures.

Episodic Acidification

Melting snow and heavy rain downpours can result in what is known as episodic acidification. Lakes that do not normally have a high level of acidity may temporarily experience effects of acid rain when the melting snow or downpour brings greater amounts of acidic deposition and the soil can’t buffer it. This short duration of higher

<https://www.atsdr.cdc.gov/mmg/mmg.asp?id=249&tid=46>. Sept. 10, 2020

¹³ P. J. Drent & j. W. Woldendorp. 1989. Acid rain and eggshells. *Nature* 339:431.
<https://doi.org/10.1038/339431a0>

¹⁴ Effects of Acid Rain <https://www.epa.gov/acidrain/effects-acid-rain>. Sept. 11, 2020

acidity (i.e., lower pH) can result in a short-term stress on the ecosystem where a variety of organisms or species may be injured or killed.

3.6 Ground level ozone

Colacem chose not to tabulate their emissions of ozone (O₃) for the following reason:

Given that O₃ is a secondary pollutant formed from photochemical reaction with VOC and NO_x that occurs over several hours, there are likely little to no impact within the 4 km modelling domain of the proposed Project (i.e., emission plumes would disperse and be carried downwind outside of the modelling domain before reactions would occur).¹⁵

Considering that very important regional ecosystems are more than 4 kilometres away from the proposed site, it would have been appropriate to include ozone levels resulting from Colacem's operations on the ambient levels to be able fully assess the risks to the surrounding area (**Section 6 below**).

According to the EPA, elevated exposures to ozone can affect sensitive vegetation and ecosystems, including forests, parks, wildlife refuges and wilderness areas. In particular, ozone can harm sensitive vegetation during the growing season.¹⁶

The text below was copied from the EPA web site:¹⁶

What does ozone exposure do to sensitive plants?

When sufficient ozone enters the leaves of a sensitive plant, it can:

- Reduce photosynthesis, which is the process that plants use to convert sunlight to energy to live and grow.
- Slow the plant's growth.
- Increase sensitive plants' risk of:
 - disease
 - damage from insects
 - effects of other pollutants
 - harm from severe weather.

Also, some plants can show visible marks on their leaves when ozone is present under certain conditions.

¹⁵ Colacem - Witness Statement - Sean Capstick (Air) 18Sep2020.pdf (Page 517)

¹⁶ Ecosystem Effects of Ozone Pollution

<https://www.epa.gov/ground-level-ozone-pollution/ecosystem-effects-ozone-pollution>

What happens to the ecosystem?

- The effects of ozone on individual plants can then have negative impacts on ecosystems, including:
 - loss of species diversity (less variety of plants, animals, insects, and fish)
 - changes to the specific assortment of plants present in a forest
 - changes to habitat quality
 - changes to water and nutrient cycles.

Ground level ozone pollution is very important and the levels of ozone caused by the proposed cement plant operations should have been fully disclosed.

3.7 Pollutants that can bio-accumulate in rivers and lakes, in fish and wildlife, and in the food chain.

There are 15 pollutants that will be emitted by Colacem that can be bio-accumulated and that are toxic or carcinogenic. They have the potential to be bio-accumulated in plants, milk, fish, native birds, migratory birds, meat and eggs. The full list along with their toxicity is presented below. Thereafter, they can enter the food chain and could eventually end up in our plate.

Some of these pollutants can persist in our environment for some time and eventually accumulate over the years to reach levels that could be dangerous and unsafe in our wildlife, soils and waterways.

They can contaminate the food chain even at a fair distance from the proposed cement plant. They can also contaminate the fish caught in the Ottawa River.

In the tables below, the risks to health and the environment were copied from the online database of three internationally recognised organisations. When a key reference such as TOXNET, NIOSH, ATSDR or INCHEM appears at the end of a sentence, this means that the data was obtained from their database.

TOXNET: Data from Toxnet, Toxicology Data Network. National Library of Medicine HSDB database. <https://www.nlm.nih.gov/toxnet/index.html> (2019) – TOXNET HAS MOVED

As part of a broader NLM reorganization, most of NLM's toxicology information services have been integrated into other NLM products and services. <https://www.nlm.nih.gov/toxnet/index.html> (2022) .

NIOSH and **TOXNET** can now be searched at: <https://chem.nlm.nih.gov/chemidplus/chemidlite.jsp> by entering the CAS number and then choosing NIOSH ICSC (2022).

NIOSH: Data from NIOSH, The National Institute for Occupational Safety and Health (NIOSH) - <https://www.cdc.gov/niosh/ipcsneng/nengname.html>

ATSDR: Data from ATSDR, Toxic Substances Portal. Agency for Toxic Substances and Disease Registry - <https://www.atsdr.cdc.gov/substances/index.asp>

INCHEM: World Health Organization, Internationally Peer Reviewed Chemical Safety Information database. <https://incchem.org/> (2022)

Only the pollutants that have a CAS number, that bio-accumulate, and that had a mention concerning health or environmental risks are presented below. They have been separated into two groups, organic pollutants and inorganic pollutants.

Table 2. List of organic pollutants that will be emitted by the proposed cement plant that have a CAS number and that are known to be dangerous and that bio-accumulate in plant, fish, meat, and the environment.

Organic pollutant	CAS ^A	Information from TOXNET, NIOSH, ATSDR and INCHEM
Benzo(a)anthracene	56-55-3	Probable human carcinogen - ANIMAL CARCINOGENICITY DATA: Sufficient (TOXNET). Bioaccumulation of this chemical may occur in seafood (NIOSH). May cause cancer. Very toxic to aquatic life with long lasting effects. The substance is very toxic to aquatic organisms. The substance may cause long-term effects in the aquatic environment. Bioaccumulation of this chemical may occur in aquatic organisms. It is strongly advised not to let the chemical enter into the environment. (INCHEM)
Benzo(a)pyrene	50-32-8	Carcinogenic to humans - sufficient evidence for the carcinogenicity in experimental animals (TOXNET). The substance is very toxic to aquatic organisms. Bioaccumulation of this chemical may occur in fish, in plants and in molluscs. The substance may cause long-term effects in the aquatic environment (NIOSH).
Benzo(k)fluoranthene	207-08-9	Probable human carcinogen - Sufficient evidence of carcinogenicity in animals (TOXNET). This substance may be hazardous to the environment; special attention should be given to air quality and water quality. Bioaccumulation of this chemical may occur in crustacea and in fish (NIOSH).
Biphenyl	92-52-4	The substance is very toxic to aquatic organisms. Bioaccumulation of this chemical may occur along the food chain, for example in plants. It is strongly advised that this substance does not enter the environment (NIOSH).
Bis(2-ethylhexyl) phthalate	117-81-7	Probable Human Carcinogen - Sufficient evidence of carcinogenicity in animals - Is an endocrine disruptor (TOXNET). Bioaccumulation of this chemical may occur in seafood (NIOSH).
Chrysene	218-01-9	Probable human carcinogen - animal carcinogenicity data: Sufficient (TOXNET). The substance is very toxic to aquatic organisms. Bioaccumulation of this chemical may occur in seafood. It is strongly advised that this substance does not enter the environment (NIOSH).
Dibenz(a,h)anthracene	53-70-3	Probable human carcinogen - Sufficient evidence of carcinogenicity in animals (TOXNET). Bioaccumulation of this chemical may occur in seafood (NIOSH).
Dioxins and Furans (TEQ)	Used 1746-01-6 since generic description	Carcinogenic to humans - carcinogenic to animals (TOXNET). Poison, The substance is very toxic to aquatic organisms. This substance may be hazardous in the environment; special attention should be given to soil contamination. Bioaccumulation of this chemical may occur in fish, in plants, in mammals and in milk. It is strongly advised that this substance does not enter the environment (NIOSH).
Indeno(1,2,3-cd)pyrene	193-39-5	Probable human carcinogen - Sufficient evidence of carcinogenicity in animals (TOXNET). This substance may be hazardous to the environment; special attention should be given to air quality and water quality. Bioaccumulation of this chemical may occur in fish (NIOSH).
Pyrene	129-00-0	Bioaccumulation of this chemical may occur in crustacea, in fish, in milk, in algae and in molluscs. It is strongly advised that this substance does not enter the environment (NIOSH).

^A CAS Registry Number is a unique numerical identifier assigned by Chemical Abstracts Service (CAS) to every chemical substance described in the open scientific literature.

Table 2 (continued from previous page). List of inorganic pollutants that will be emitted by the proposed cement plant that have a CAS number and that are known to be dangerous and that bio-accumulate in plant, fish, meat, and the environment.

Inorganic pollutant	CAS ^A	Information from TOXNET, NIOSH, ATSDR and INCHEM
Barium	7440-39-3	Fish and aquatic organisms can accumulate barium (ATSDR)
Lead	7439-92-1	Probable human carcinogen - Sufficient evidence of carcinogenicity in animals (TOXNET). Bioaccumulation of this chemical may occur in plants and in mammals (NIOSH)
Mercury	7439-97-6	Corrosive, the substance is very toxic to aquatic organisms. In the food chain important to humans, bioaccumulation takes place, specifically in fish (NIOSH). Mercury combines with carbon to make organic mercury compounds. The most common one, methylmercury, is produced mainly by microscopic organisms in the water and soil. More mercury in the environment can increase the amounts of methylmercury that these organisms make (ATSDR). Methylmercury is a possible human carcinogen (TOXNET).
Selenium	7782-49-2	Selenium may accumulate up the food chain (ATSDR).
Thallium	7440-28-0	Poison, the substance is toxic to aquatic organisms. Bioaccumulation of this chemical may occur along the food chain, for example in freshwater organisms. This substance may be hazardous to the environment; special attention should be given to birds and mammals (NIOSH). It is strongly advised that this substance does not enter the environment. The substance may cause long-term effects in the aquatic environment. It's absorbed by plants and enters the food chain, it builds up in fish and shellfish (ATSDR).

^A CAS Registry Number is a unique numerical identifier assigned by Chemical Abstracts Service (CAS) to every chemical substance described in the open scientific literature.

4. Colacem’s field inventory/survey was limited to one year only (2015) and to a fraction of its property

Colacem did commission a field inventory/survey in 2015 in order to characterize the habitats and communities on site.¹⁷

Date	Type of Survey
April 22, May 27, and June 22, 2015	Nocturnal Anuran Call Count Surveys
May 27, and June 22, 2015	Crepuscular and Nocturnal Bird Surveys
April 22, May 27, June 22, and August 14, 2015	Herpetile and other Wildlife Visual Encounter Surveys
June 5 and July 5, 2015	Breeding Bird Surveys
April 22, June 5, and August 14, 2015	Ecological Land Classification, Botanical Inventory and Wetland Community Surveys
August 14, 2015	Aquatic Habitat and Fish Surveys

Figure 1. Screen capture of the table listing the type of survey that was done and when, in 2015 (page 42).¹⁷

The field inventory/survey was only done in a single year, 2015, at between one to four different dates only for the various type of survey (see Figure 1 above for details), and only at a few stations within the site (Figure 2). Furthermore, several types of surveys were combined and conducted at the same time. Overall, the site was only visited at 6 different times in 2015. Considering the scale of the proposed cement plant project, there should have been more surveys done, ideally several times within each season of the year, and for several years to accurately characterize and identify all the wildlife and flora truly present and to describe the natural environment of the whole site through the seasons.

The field surveys were also restricted to the site of the proposed cement plant which covers 56 hectares adjacent to Colacem’s quarry (See Figure 2 below). These 56 hectares represent only 26% of Colacem’s property at this location (see Figure 3 below). The whole property should have been surveyed along with the **significant woodlands and wetlands within the quarry and adjacent to the property**.

The quarry’s site will be closely linked to that of the proposed cement plant and, at a minimum, it should have been included in Colacem’s field inventory/survey (see Figure 4 below for a plan of the quarry expansion which includes some **wetlands** (Figure 6) and some **woodlands** (Figure 7)).

The person that did Colacem’s field inventory/survey mentioned that some endangered, threatened and special concern species might be in the “**significant woodland**” present both on the quarry side of the property, on the proposed cement plant site, or on properties adjacent

¹⁷ Colacem - Witness Statement - Heather Melcher (Wildlife and Natural Environment) 18Sep2020.PDF

(Figure 1 and 2).¹⁸ The same could be said for the **wetlands** on Colacem's property or adjacent to its property.

The quarry's activities will be 4 to 5 times greater to supply limestone to the proposed cement plant. The cement plant would not be built there if the quarry was not already there. Both the proposed cement plant property and the quarry property should have been included in the field inventory/survey conducted by Colacem to truly reflect this situation.

Given the number of different pollutants (96) and their mass (more than 20 tonnes a day) a more comprehensive field inventory/survey should have included (**Section 6 below**):

- the Ottawa River which is less than 2 km North where thousands of migratory birds are observed in the spring and in the fall,
- the Alfred Bog (the most significant peatlands in all of Eastern Ontario), managed by Ontario Parks as a Provincial Nature Reserve, 9 km away West,
- Atocas Bay Conservation Project managed by Ducks Unlimited (wetlands, 8 km away West),
- Pumpkinseed Bay, located in Quebec (bird staging location with over 200 different bird species recorded, 7 km away East)

These sites are all important ecosystems that support an abundance of plant life, animals, fish, native birds and migratory birds. Millions of dollars have been invested by governments and private groups in preserving and restoring ecosystems in this area.

Ten federally-listed endangered, threatened or special concern species were observed either on the proposed cement plant site or on one of the sites listed above or in the area (**Section 5 below for details**).

- Considering that pollutants can spread over a long distance when coming from the kiln
- Considering that 15 of the pollutants can accumulate in the food-chain
- Considering that some of the pollutants can persist for a long time in the environment

It is not because a pollutant is below its air quality standards that it means that there will not be some adverse effects on plants, wildlife or the environment.

Depending on the targeted class of wildlife, the surveys were conducted for 1, 2, or 3 days, generally combined with other wildlife surveys done at the same time. It is exaggerated to then state that any given species is absent from the site, only based on so few days of observation within one year.

Conclusions presented in the study concerning the absence of any given species from the site does not mean that the species is not there. The sampling was not intensive enough to be conclusive. The sampling in this study should have been more intensive, more frequent and carried over several years to be accurate.

¹⁸ Colacem - Witness Statement - Heather Melcher (Wildlife and Natural Environment) 18Sep2020.PDF

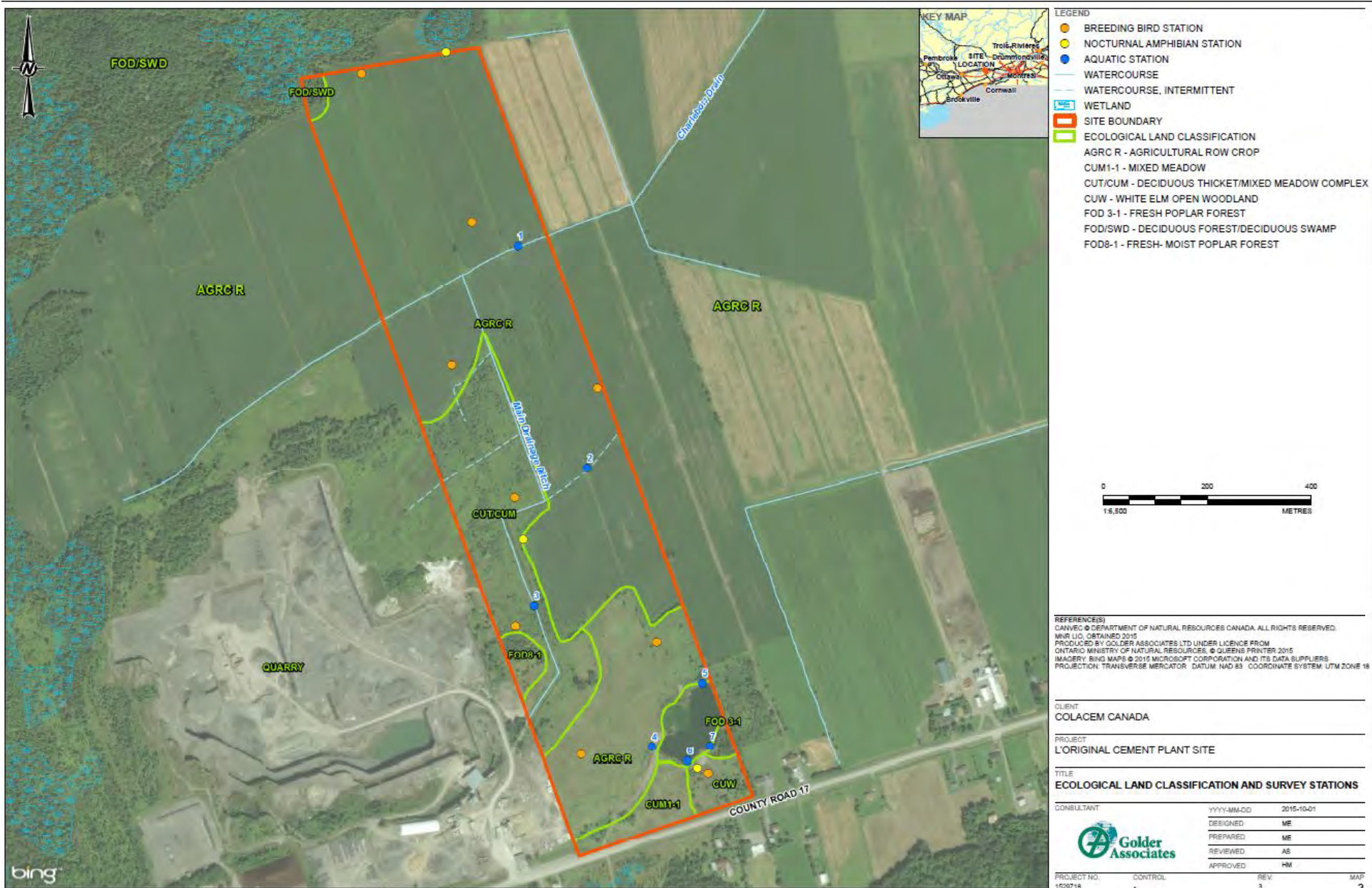


Figure 2. Ecological land classification and survey stations. ¹⁹ Screen capture of page 35.

¹⁹ Colacem - Witness Statement - Heather Melcher (Wildlife and Natural Environment) 18Sep2020.PDF

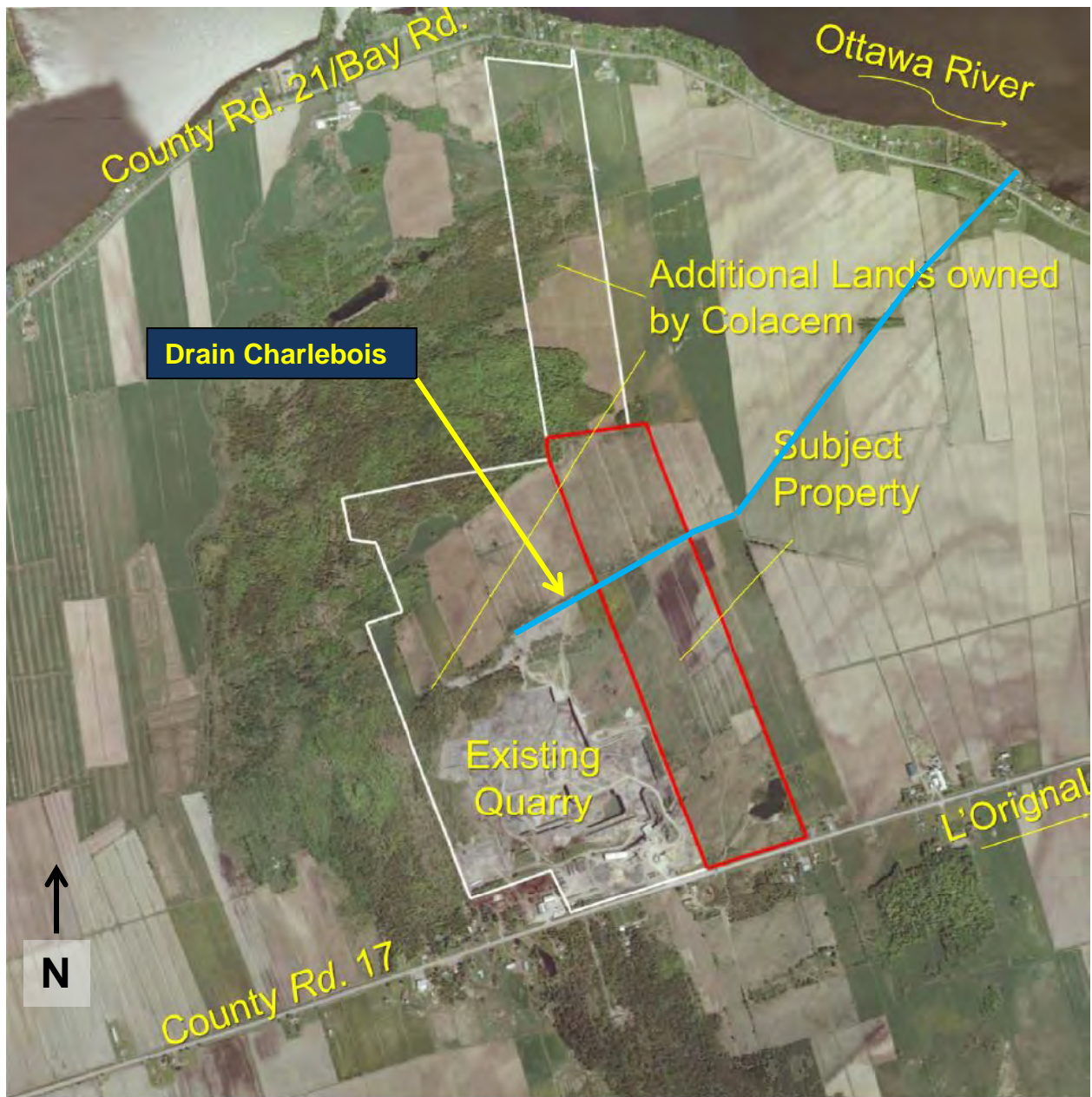


Figure 3. Aerial view of the lots owned by Colacem. It includes the existing quarry, the proposed cement plant project (Subject Property), and lands extending up to a few hundred meters from the Ottawa River. Screen capture from Display Boards used during Colacem Open Houses.²⁰ The

The Drain Charlebois runs directly into the Ottawa River and its outline was added in blue to this figure to indicate its position. A yellow arrow and a text box were also added to draw attention to the Drain Charlebois.

²⁰ Colacem - Witness Statement - Rachel Gould (Consultation) 18Sep2020.PDF (Page 51)

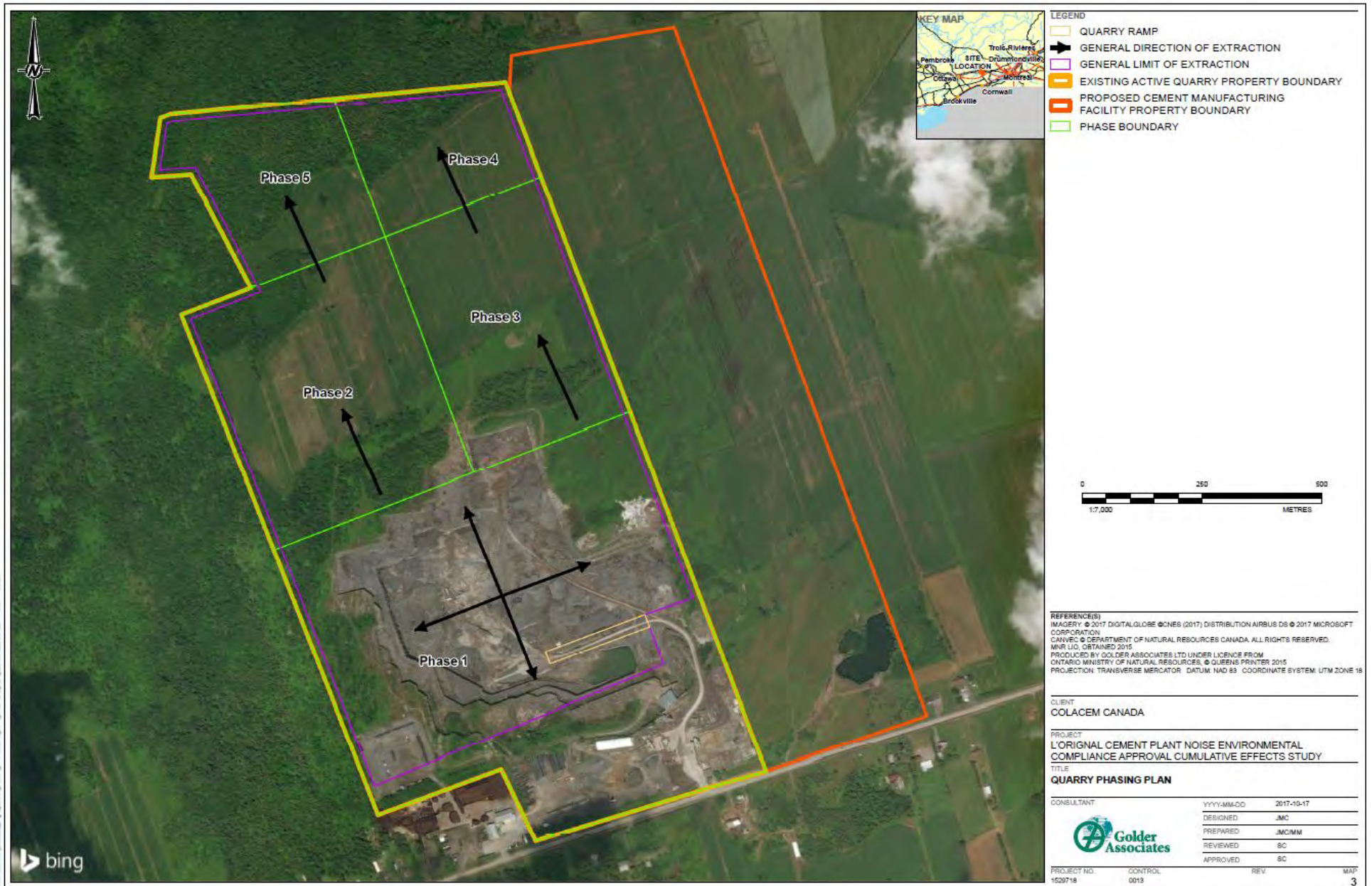


Figure 4. Planned expansion of the quarry. Screen capture of the “Quarry Site Phasing/Sequencing Plan” on page 257.²¹

²¹ Colacem - Witness Statement - Joe Tomaselli (Noise) 18Sept2020.PDF

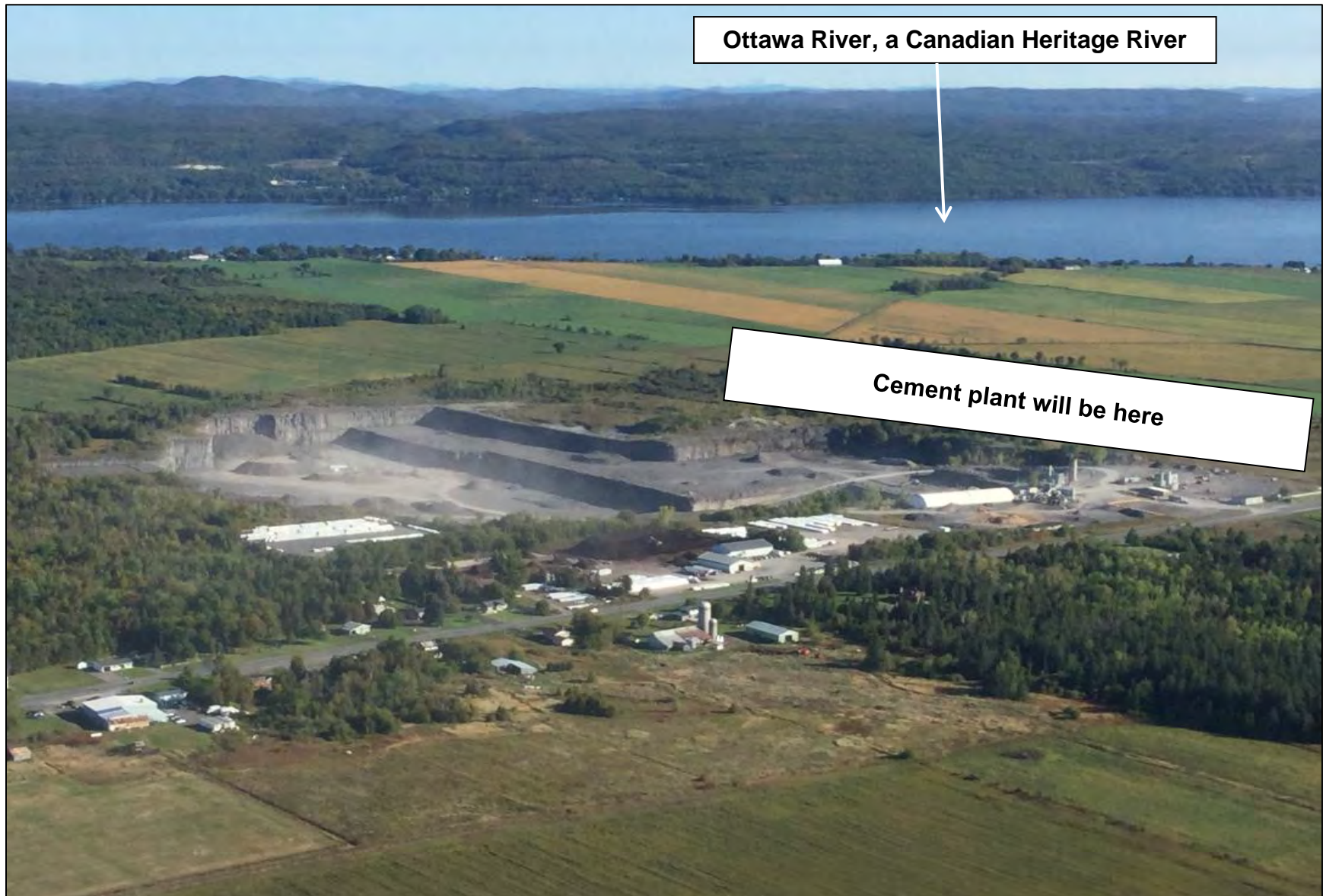


Figure 5. Aerial view looking north towards the Ottawa River with the Colacem quarry in the foreground. The proposed cement plant site approximate location has been indicated by a text box. Photo courtesy of the Vankleek and District Nature Society.

4.1 Wetlands present on Colacem property and on adjacent lands

There are important wetlands on Colacem's property and on adjacent lands. These wetlands were not included in the field inventory/survey although they should have been.

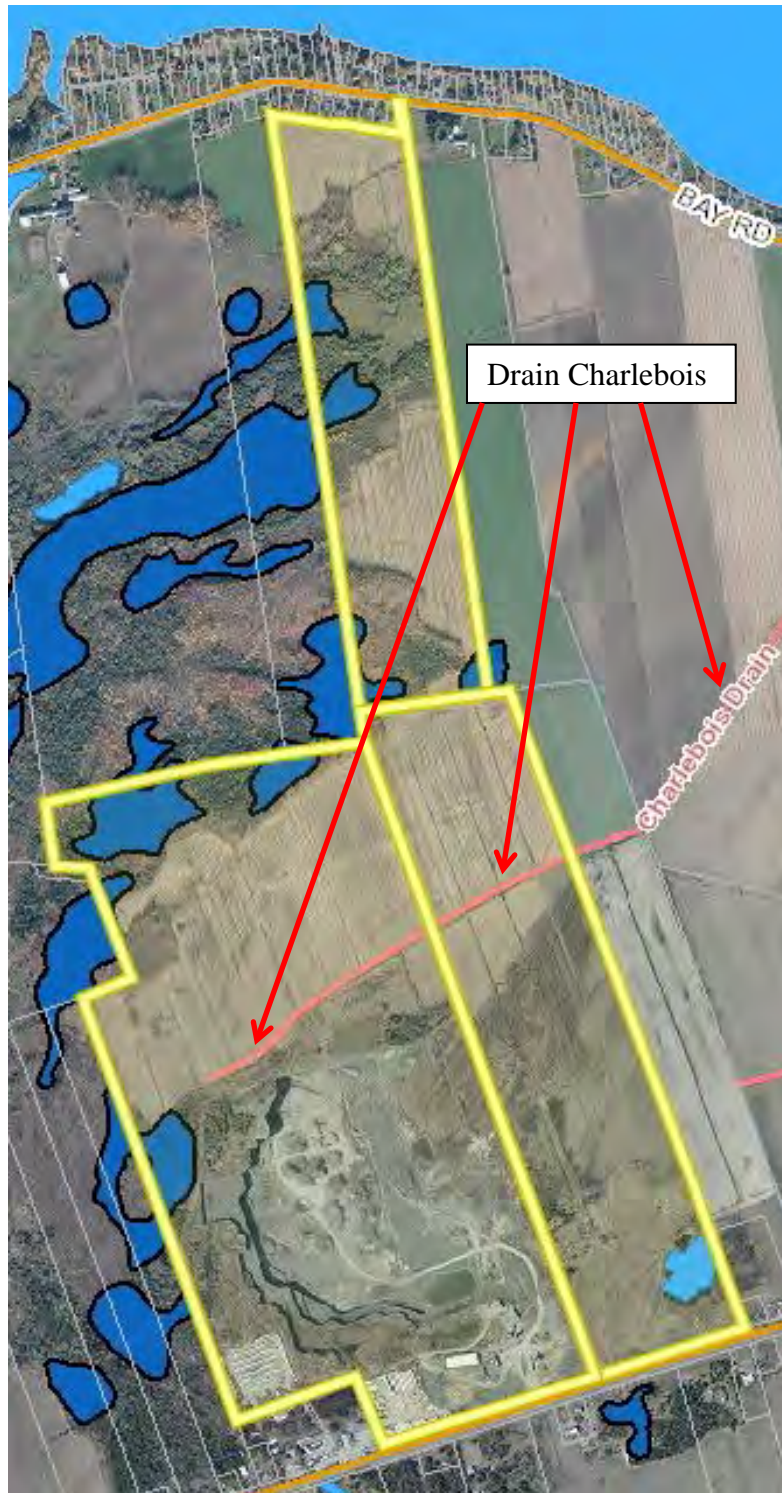


Figure 6. Wetlands present on Colacem's property (Property boundary in yellow). The dark blue areas are the wetlands according to Prescott-Russell's A la Carte web site (<https://alacarte.prescott-russell.on.ca/Html5Viewer/Index.html?viewer=Public>).

4.2 Woodlands present on Colacem property and on adjacent lands

There are significant woodlands on Colacem's property and on adjacent lands. These woodlands were not included in the field inventory/survey although they should have been.



Figure 7. Significant woodlands present on Colacem's property (Colacem's property boundary in yellow). The green areas are the woodlands according to Prescott-Russell's A la Carte web site (<https://alacarte.prescott-russell.on.ca/Html5Viewer/Index.html?viewer=Public>).

5. Federally-listed species that are endangered, threatened or of concern in the area

Fourteen species at risk or threatened have been officially observed on the proposed site or nearby. The list of at risk species observed on Colacem's property would probably be much larger if the significant woodlands and wetlands on all of its property had been included in the original survey. The other species listed are species that Colacem speculated that they could be there but were not observed.

The status of the different species listed below is based on the classification from:

- COSEWIC: The Committee on the Status of Endangered Wildlife in Canada <https://species-registry.canada.ca/index-en.html#/species?sortBy=commonNameSort&sortDirection=asc&pageSize=10>
- SARA: Canadian government Species at Risk Act . <https://www.laws.justice.gc.ca/eng/acts/S-15.3/page-10.html#h-435647>
- ESA: Endangered Species Act, 2022. Ontario Regulation 230/08: Species at risk in Ontario. <https://www.ontario.ca/laws/regulation/080230>

Monarch

The Monarch (*Danaus plexippus*) is listed as “Special Concern” with SARA, as “Endangered” with COSEWIC (<https://species-registry.canada.ca/index-en.html#/species/294-90>), and as Special Concern with ESA. It was observed and reported in Colacem's field inventory/survey.

Yellow-banded Bumble Bee

The Yellow-banded Bumble Bee (*Bombus terricola*) is listed as “Special Concern” both with SARA and with COSEWIC (<https://species-registry.canada.ca/index-en.html#/species/1288-939>) and with ESA.

It was listed as having a moderate potential to occur on the site because woodlands and meadows on the site may provide potential suitable for this species.

Again, the absence of observation of this species does not mean that it is not there. The same comments concerning the sampling protocol written for the Western chorus frog apply also for this species (see next page).

Western chorus frog - Great Lakes St. Lawrence / Canadian Shield population

The Western chorus frog (*Pseudacris triseriata*) is a threatened species that has been observed in the area where the quarry and the proposed cement plant are located (see Figure 8 below). Status: Threatened both with COSEWIC and SARA: <https://species-registry.canada.ca/index-en.html#/species/1019-697>

According to Herp Atlas records, the Western chorus frog has been observed in the area where the proposed cement plant will be built.

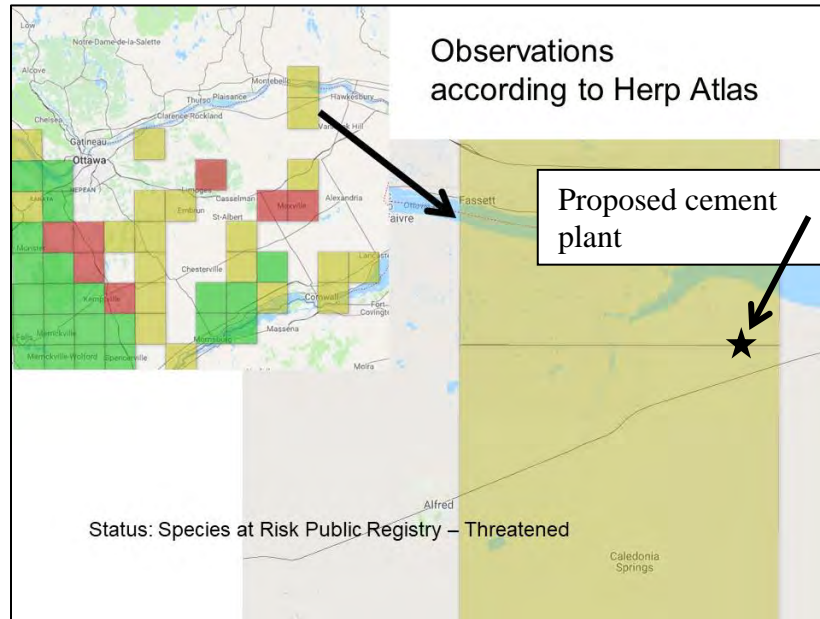


Figure 8. Location where the Western chorus frog was observed according to Herp Atlas.²² The red star indicates roughly where the proposed cement plant will be built. This is a screen capture of the Atlas web page in 2018.

The following comments were written in Colacem's report (page 129):

Although the marshy ditches on the site and flooded areas at the western edge of the site provide potential suitable habitat for this species, none were observed during targeted field surveys in 2015.²³

The survey was done only during 3 nights in the same year (April 22, May 27, and June 22, 2015). They also did other wildlife surveys at the same time.

It is exaggerated to then state that this species is absent from that site, only based on 3 samples within the same year (see Figure 9 below).

²² Reference: <https://www.ontarionature.org/oraa/maps/?species=micf&lat=44.168&long=-80.065&zoom=6> accessed 20 April 2018. The Atlas was moved December 2019. See Big changes to the Ontario Reptile and Amphibian Atlas. <https://ontarionature.org/programs/community-science/reptile-amphibian-atlas/>

²³ Colacem - Witness Statement - Heather Melcher (Wildlife and Natural Environment) 18Sep2020.PDF

The absence of observation of this species does not mean that it is not there. The sampling could have been more intensive, more frequent and over several years. The observation of this species inventoried in the same area according to Herp Atlas should warrant a more thorough survey to rule out whether this species is present or not.

Also, as mentioned in Section 4 above, Colacem's field inventory/survey was very narrow in scope by only surveying the 26 % of Colacem's property. Especially considering that the proposed cement plant site and the lot of the quarry were officially merged in 2021 and that there are significant woodlands and wetlands on the property where this species could be present.

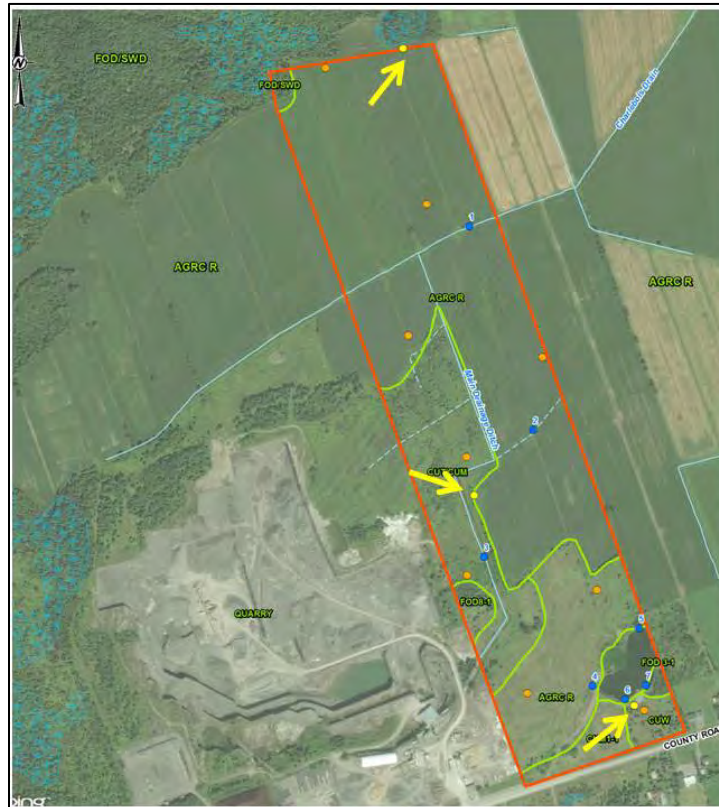


Figure 9. Aerial photograph showing the three sampling stations for the Western chorus frog. It is a smaller version of Figure 2 above. The yellow arrows were added to point the sampling stations.

Barn Swallow

Some Barn Swallow (*Hirundo rustica*) were observed and reported in Colacem's field inventory/survey. It is listed as "Threatened" with SARA and as "Special Concern" with COSEWIC (<https://species-registry.canada.ca/index-en.html#/species/1147-790>). It is listed as "Threatened" with ESA.

It was observed and reported in Colacem's field inventory/survey.

Bobolink

Bobolink (*Dolichonyx oryzivorus*) is present in the area. It is listed as “Threatened” with SARA and as “Special Concern” with COSEWIC (<https://species-registry.canada.ca/index-en.html#/species/1087-746>). It is listed as “Threatened” with ESA.

It was not observed during Colacem’s field inventory/survey. However, the absence of observation of this species does not mean that it is not there. The same comments concerning the sampling protocol written for the Western chorus frog apply also for this species.

It has been observed at the Atocas Bay Conservation Project a few kilometres from the Colacem’s site.²⁴²⁵

Chimney Swift

Chimney Swift (*Chaetura pelagica*) is present in the area. It is listed as “Threatened” with SARA and as “Threatened” with COSEWIC (<https://species-registry.canada.ca/index-en.html#/species/951-650>). It is listed as “Threatened” with ESA.

It was not observed during Colacem’s field inventory/survey. However, the absence of observation of this species does not mean that it is not there. The same comments concerning the sampling protocol written for the Western chorus frog apply also for this species.

It has been observed a few kilometres from the site.

Eastern Meadowlark

Eastern Meadowlark (*Sturnella magna*) is present in the area. It is listed as “Threatened” both with SARA and with COSEWIC (<https://species-registry.canada.ca/index-en.html#/species/1144-798>). It is listed as “Threatened” with ESA.

It was not observed during Colacem’s field inventory/survey. However, the absence of observation of this species does not mean that it is not there. The same comments concerning the sampling protocol written for the Western chorus frog apply also for this species.

It has been observed at the Atocas Bay Conservation Project a few kilometres from the Colacem’s site.²⁶²⁷

²⁴ The Atocas Bay Conservation Project
<https://www.ducks.org/alabama/alabama-conservation-projects/the-atocas-bay-conservation-project>

²⁵ Atocas Bay-A Piece of Prairie in Eastern Ontario by Erling Armson, Ducks Unlimited Canada
<https://trainingcenter.fws.gov/resources/knowledge-resources/Birdscapes/sprsum02/Ppcn.html>

²⁶ The Atocas Bay Conservation Project
<https://www.ducks.org/alabama/alabama-conservation-projects/the-atocas-bay-conservation-project>

²⁷ Atocas Bay-A Piece of Prairie in Eastern Ontario by Erling Armson, Ducks Unlimited Canada

Grasshopper Sparrow

Grasshopper Sparrow, *pratensis* subspecies (*Ammodramus savannarum pratensis*) is present in the area. It is listed as “Special Concern” both with SARA and with COSEWIC (<https://species-registry.canada.ca/index-en.html#/species/1241-907>). It is listed as “Special Concern” with ESA.

It was not observed during Colacem’s field inventory/survey. However, the absence of observation of this species does not mean that it is not there. The same comments concerning the sampling protocol written for the Western chorus frog apply also for this species.

It has been observed a few kilometres from the site.

Least Bittern

Least Bittern (*Ixobrychus exilis*) is present in the area. It is listed as “Threatened” with SARA and as “Threatened” with COSEWIC (<https://species-registry.canada.ca/index-en.html#/species/51-10>). It is listed as “Threatened” with ESA.

It was not observed during Colacem’s field inventory/survey. However, the absence of observation of this species does not mean that it is not there. The same comments concerning the sampling protocol written for the Western chorus frog apply also for this species.

It has been observed at the Atocas Bay Conservation Project a few kilometres from the Colacem’s site.^{28,29}

Short-eared Owl

Short-eared Owl (*Asio flammeus*) is present in the area. It is listed as “Special Concern” with SARA and as “Threatened” with COSEWIC (<https://species-registry.canada.ca/index-en.html#/species/60-395>). Its status with SARA will eventually change to “Threatened”. It is listed as “Special Concern” with ESA.

It was not observed during Colacem’s field inventory/survey. However, the absence of observation of this species does not mean that it is not there. The same comments concerning the sampling protocol written for the Western chorus frog apply also for this species.

It has been observed at the Atocas Bay Conservation Project a few kilometres from the Colacem’s site.^{10,11}

<https://trainingcenter.fws.gov/resources/knowledge-resources/Birdscapes/sprsum02/Ppcn.html>

²⁸ The Atocas Bay Conservation Project

<https://www.ducks.org/alabama/alabama-conservation-projects/the-atocas-bay-conservation-project>

²⁹ Atocas Bay-A Piece of Prairie in Eastern Ontario by Erling Armson, Ducks Unlimited Canada
<https://trainingcenter.fws.gov/resources/knowledge-resources/Birdscapes/sprsum02/Ppcn.html>

Wood Thrush

Wood Thrush (*Hyllocichla mustelina*) was listed as having a moderate potential to occur on site by Colacem. It is listed as “Threatened” with SARA and as “Threatened” with COSEWIC (<https://species-registry.canada.ca/index-en.html#/species/1197-870>). It is listed as “Special Concern” with ESA.

It was not observed during Colacem’s field inventory/survey. However, the absence of observation of this species does not mean that it is not there. The same comments concerning the sampling protocol written for the Western chorus frog apply also for this species.

Tri-coloured Bat

Tri-coloured Bat (*Perimyotis subflavus*) was listed as having a low to moderate potential to occur on site by Colacem. It is listed as “Endangered” with SARA and as “Endangered” with COSEWIC (<https://species-registry.canada.ca/index-en.html#/species/1174-850>). It is listed as “Endangered” with ESA.

It was not observed during Colacem’s field inventory/survey. However, the absence of observation of this species does not mean that it is not there. The same comments concerning the sampling protocol written for the Western chorus frog apply also for this species.

Midland Painted Turtle

Midland Painted Turtle (*Chrysemys picta marginata*) is present in the area. It is listed as “Special Concern” with SARA and as “Special Concern” with COSEWIC (<https://species-registry.canada.ca/index-en.html#/species/1403-1016>).

It was not observed during Colacem’s field inventory/survey. However, the absence of observation of this species does not mean that it is not there. The same comments concerning the sampling protocol written for the Western chorus frog apply also for this species.

It has been observed in the area.

Snapping Turtle

Snapping Turtle (*Chelydra serpentina*) is present in the area. It is listed as “Special Concern” with SARA and as “Special Concern” with COSEWIC (<https://species-registry.canada.ca/index-en.html#/species/1033-710>). It is listed as “Special Concern” with ESA.

It was not observed during Colacem’s field inventory/survey. However, the absence of observation of this species does not mean that it is not there. The same comments concerning the sampling protocol written for the Western chorus frog apply also for this species.

It has been observed in the area.

Spiny Softshell Turtle

Spiny Softshell Turtle (*Apalone spinifera*) was present in the area. It is listed as “Endangered” with SARA and as “Endangered” with COSEWIC (<https://species-registry.canada.ca/index-en.html#/species/278-206>). It is listed as “Endangered” with ESA.

It was not observed during Colacem’s field inventory/survey. However, the absence of observation of this species does not mean that it is not there. The same comments concerning the sampling protocol written for the Western chorus frog apply also for this species.

It has been observed locally in the past but now it is considered extirpated from the area.

Spotted Turtle

Spotted Turtle (*Clemmys guttata*) is present in the area. It is listed as “Endangered” with SARA and as “Endangered” with COSEWIC (<https://species-registry.canada.ca/index-en.html#/species/285-350>). It is listed as “Endangered” with ESA.

It was not observed during Colacem’s field inventory/survey. However, the absence of observation of this species does not mean that it is not there. The same comments concerning the sampling protocol written for the Western chorus frog apply also for this species.

It has been observed in the area.

Black Ash

Black Ash (*Fraxinus nigra*) is present in the area. It is listed as “Under consideration for addition” with SARA and as “Threatened” with COSEWIC (<https://species-registry.canada.ca/index-en.html#/species/1445-1032>). It is listed as “Endangered” with ESA.

It is likely to be encountered in the significant woodlands on Colacem’s property or on the lots adjacent to it.

It has been observed in the area.

Butternut

Butternut (*Juglans cinerea*) is present in the area. It is listed as “Endangered” with SARA and as “Endangered” with COSEWIC (<https://species-registry.canada.ca/index-en.html#/species/793-336>). It is listed as “Endangered” with ESA.

It is likely to be encountered in the significant woodlands or on Colacem’s property or on the lots adjacent to it. It has been observed in the area.

Overall there are 14 species at risk federally-listed. Three are listed as Endangered, six as Threatened (a seventh species is under consideration to be added to this category) and five as Special Concern. All have been observed either on Colacem’s property or in the area.

Table 3. Summary on the status of species at risk observed on the site of the proposed cement plant or in the area.

Species	SARA ^A	ESA ^B	Location
Monarch	Special Concern ^C	Special Concern	Observed on site
Barn Swallow	Threatened ^D	Threatened	Observed on site
Bobolink	Threatened	Threatened	Observed at Atocas Bay ^E
Eastern Meadowlark	Threatened	Threatened	Observed at Atocas Bay
Short-eared Owl	Special Concern ^C	Special Concern	Observed at Atocas Bay
Least Bittern	Threatened	Threatened	Observed at Atocas Bay
Western chorus frog Great Lakes St. Lawrence / Canadian Shield population	Threatened	Not listed	Observed in the area
Midland Painted Turtle	Special Concern	Not listed	Observed in the area
Snapping Turtle	Special Concern	Special Concern	Observed in the area
Spiny Softshell	Endangered	Endangered	Possibly extirpated from the area
Spotted Turtle	Endangered	Endangered	Observed in the area
Grasshopper sparrow	Special Concern	Special Concern	Observed in the area
Chimney swift	Threatened	Threatened	Observed in the area
Black Ash	Under consideration for addition ^C	Endangered	Possibly on site, is in the area
Butternut	Endangered	Endangered	Possibly on site, is in the area

^A Canadian government Species at Risk Act.

^B Ontario. Endangered Species Act (ESA), 2022. Ontario Regulation 230/08: Species at risk in Ontario list

^C Eventually will change to Threatened

^D Eventually will change to Special Concern

^E Atocas Bay stands for “Atocas Bay Conservation Project wetland”, 8 km away. Managed by Ducks Unlimited

6. Potential impact of air pollution on surrounding environment and conservation areas.

It is a great concern that the environment will suffer because the studies and reports submitted to the Ontario Ministry of the Environment, Conservation and Parks contained errors of facts and that emissions will be above any levels that Colacem has discussed.

It should furthermore be noted that even when pollution levels are within the Ontario regulatory limits, it does not mean that there are no effects on the environment. Particularly of concern is the fact that some of the pollutants could accumulate with time and some ecosystems are more susceptible than others to changes in their environment.

Notwithstanding the errors of facts, the omissions of facts and misrepresentation of fact that are sufficient to invalidate the Environmental Compliance Approval that Colacem received from the Ontario Ministry of the Environment, Conservation and Parks, there are several broad concerns that extend far beyond the 56 hectares of Colacem's field inventory/survey.

As mentioned in previous sections, the Colacem's field inventory/survey only covers the 56 hectares of Colacem's property adjacent to its quarry. It should have included Colacem's entire property and the adjacent lots.

To better assess the potential impact of this project on the environment, ecosystems and wildlife habitats, an appropriate study should cover the much larger area that will be affected by the proposed facility's emission of 96 different pollutants if ozone is included.

Of particular concern are:

- the Ottawa River which is less than 2 km North where thousands of migratory birds are observed in the spring and in the fall,
- the Alfred Bog (the most significant peatlands in all of Eastern Ontario), managed by Ontario Parks as a Provincial Nature Reserve, 9 km away West,
- Atocas Bay Conservation Project managed by Ducks Unlimited (wetlands, 8 km away West),
- Pumpkinseed Bay, located in Quebec (bird staging location with over 200 different bird species recorded, 7 km away East)

6.1 The Ottawa River (a Canadian Heritage River) which is less than 2 km away

The Ottawa River is very close to the project site and there is a municipal drain (Charlebois Municipal Drain) which intersects the Colacem site where the cement plant will be built. Furthermore, there is a series of ditches which collect water from the proposed site to the Charlebois Municipal Drain. **See Figure 10 below and Section 7.**

Thousands of migratory birds are observed in the spring and in the fall in this area.

Presentation of the Canadian Heritage Rivers System.³⁰

Canada's 40 Heritage Rivers are recognized nationally for their outstanding natural, cultural, and recreational heritage. These rivers are an important part of Canada's rich heritage, and shape who we are as a nation.

Once rivers are designated to the Canadian Heritage Rivers System, they become part of a network of waterways that are cared for by passionate river stewards. Governments, local communities, conservation authorities and local citizens come together with the overarching goal of celebrating, conserving and protecting designated rivers. Extracted from their web site.²⁵

Presentation on the importance of the Ottawa River:²⁷

Canada's eighth largest river, the Ottawa flows through 1271 kilometres (km) of the Laurentian physiographic region of Canada. The section designated as a Canadian Heritage River spans 590km and forms a natural border between Ontario and Quebec. The river flows through rural areas and small towns in the Upper and Lower Ottawa Valleys, and passes through the urban setting of Ottawa, Ontario.

Though tamed by multiple hydroelectric dams, the river has many interesting natural features, including underwater caves found at Westmeath. Rare plant species can be found along the riverbed and the diverse environment around the river is home to countless species of fish, birds and mammals. Extracted from their web site.²⁵

³⁰ Canadian Heritage Rivers System - Canada's National River Conservation Program. <https://chrs.ca/en>
Sept. 11, 2020

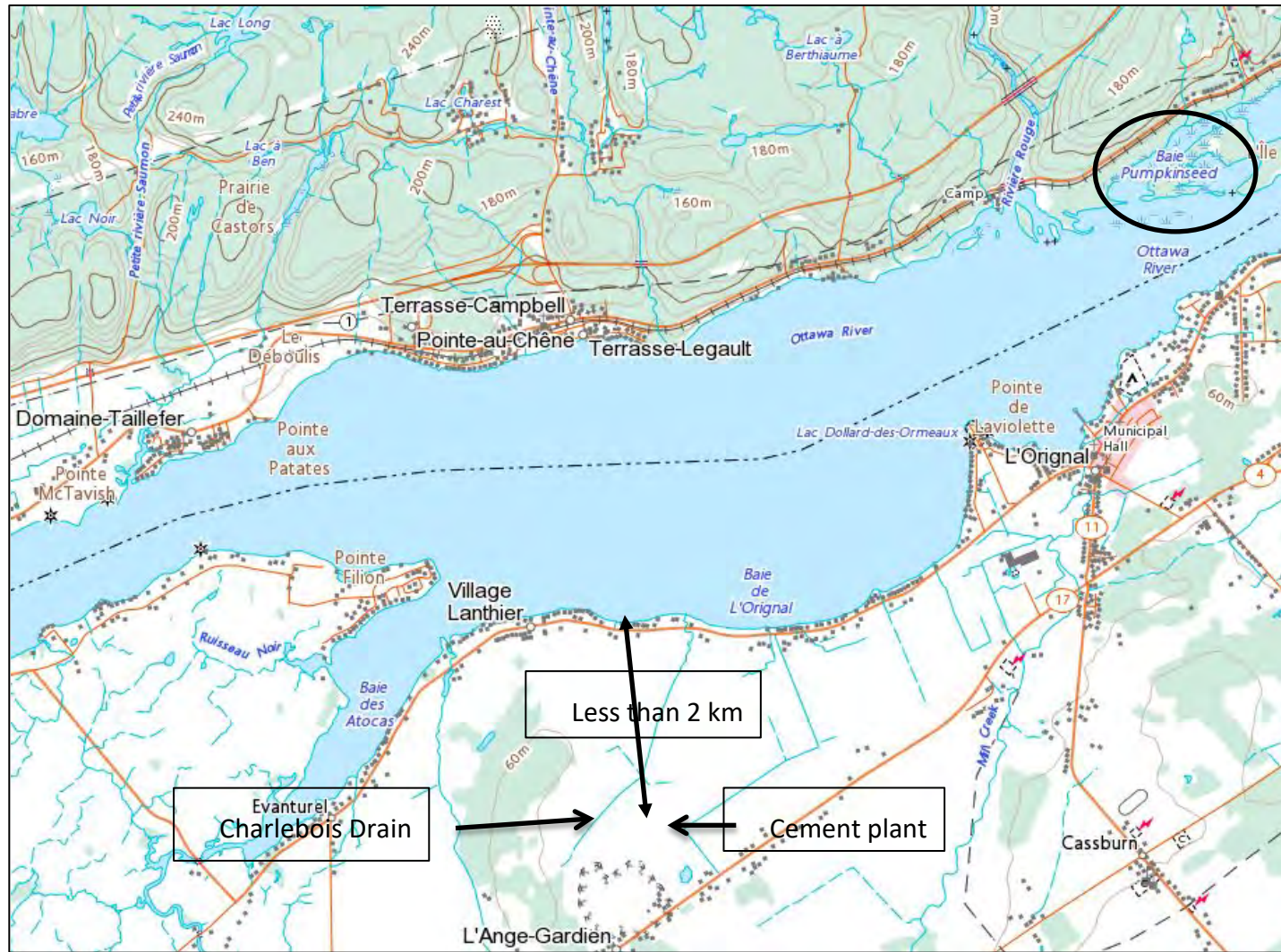


Figure 10. Map showing where the proposed cement plant will be located in relation to the Ottawa River. Pumpkinseed Bay is circled in red in the top right of the map. The Ottawa River is Lac Dollard des Ormeaux at the point where the Charlebois Municipal Drain reaches the Ottawa River. The Charlebois Municipal Drain is the main blue line while the smaller lines are channels that drain in that main drain which itself drains directly in the Ottawa River.

6.2 Alfred Bog, the most significant peatlands in all of Eastern Ontario, is managed by Ontario Parks as a Provincial Nature Reserve, 9 km away

The Vankleek Hill and District Nature Society, along with the Ottawa Field Naturalist Society and the Nature Conservancy of Canada were instrumental in saving the Alfred Bog from commercial peat extraction. The Alfred Bog was eventually donated to Ontario Parks which is currently managing it as a Provincial Nature Reserve (see Figure 11 to get an overview of the Alfred Bog location in relation with the proposed cement plant and the Ottawa River).

How was Alfred Bog formed?

Around 8000 years ago, when the lake formed by the melting glaciers drained to the Atlantic down the Ottawa River, the river abandoned its old channel and moved to its present location. The abandoned channel now contains two significant boreal peat bogs, Mer Bleue at the west end and Alfred Bog at the east end.

Exactly what is a peat bog?

The dominant vegetation in these bogs is sphagnum moss, known to gardeners as peat moss. The sphagnum became established in a boreal (meaning northern) climate. It thrives in cool, wet, oxygen-starved, nutrient-poor, acid conditions and has been building ever since. Sphagnum “wicks” up water from below and grows best at the centre of the bog so over thousands of years a dome forms. Domed bogs drain in all directions from the dome, and the only nutrients they receive come from rain and snow. These conditions produce a unique community of plants and animals.

Why Alfred Bog is special?

Treasures like these must be preserved for future generations. At 4,200 hectares (10 000 acres) Alfred Bog is the largest bog in Ontario south of the Canadian Shield. It is twice the size of Mer Bleue. There are several rare or at risks species in the Alfred Bog.

Why should we be concerned?

The Alfred Bog is very old and is stable. It took several hundreds or thousands of years to reach this state. Pollution can rapidly and drastically change its dynamic. For example, looking at some of the pollutants that will be emitted by the cement plant:

- Ozone can cause visible leaf injury and/or premature leaf die-back. It can also decrease growth during a growing season.³¹ It's important for plants having persistent foliage since they have no energy to regrow their leaves every spring, e.g. Labrador tea, Bog laurel and Sheep laurel;
- Nitrogen oxide (NO_x) can decrease bog growth, leaf discoloration, direct damage to mosses, liverworts and lichens, impacts on functioning of the bog peat ecosystem, changes in vegetation composition, e.g. loss of plant diversity and increase in *Eriophorum* (cotton grass).³²

³¹ Air Pollution Information System - Ozone :: Bogs, wetland and heath <http://www.apis.ac.uk/node/1587> Sept. 9, 2020

³² Air Pollution Information System - Nitrogen Oxides :: Bogs <http://www.apis.ac.uk/nitrogen-oxides-bogs> Sept. 9, 2020.

- Sulphur Dioxide (SO₂) can have direct toxic effects on the plants, it can change bogs vegetation composition, decreasing biodiversity³³
- Cement dust (particulate matter). This dust is either windblown from the site or emitted by the kiln stack. The text below has been copied:³⁴

«Cement dusts, like dusts in general, affect vegetation by both physical and chemical processes. Physically, dust may cover the leaf surface and reduce the amount of light available for photosynthesis, or may occlude stomata. Occlusion may lead to increased resistance to gas exchange, or may prevent full stomatal closure, leading to water stress. Increased transpiration is a common response to dust exposure.

Chemically, cement dusts are strongly alkaline, and may have detrimental effects on leaf surfaces. Infestation by pests and pathogens is likely to be enhanced.

Trees and woodlands receive greater deposition of dust than adjacent short vegetation because of increased air turbulence. In extreme cases, dust deposition may lead to tree death, but less severe symptoms are changes in pigments, sugars, and overall growth, detectable over a few km from a major source

Indirect effects may be caused through the soil, especially on acid soils, where the cement dust can increase the pH and available calcium, leading to changes in vegetation composition.»³¹

- Air pollution is a possible cause for the break-up of bog vegetation.



Figure 11. Overview of the Alfred Bog location in relation with the proposed cement plant and the Ottawa River (© OpenStreetMap contributors).

³³ Air Pollution Information System - Sulphur Dioxide (SO₂) :: Bogs <http://www.apis.ac.uk/node/911>. Sept. 9, 2020

³⁴ Air Pollution Information System - Cement dusts :: terrestrial ecosystems Particulate matter, PM 2.5 and PM10) <http://www.apis.ac.uk/node/1142> Sept. 9, 2020

6.3 Atocas Bay Conservation Project wetland, 8 km away

The Atocas Bay Conservation Project, located east of Ottawa, Ontario exemplifies a piece of the Prairie Pothole Region in Eastern Ontario.³⁵ This project is a success story of international collaboration but it runs a high risk of being threatened by the air pollution that will be produced by the cement plant. Atocas Bay now provides healthy habitat for several species at risk such as Bobolinks, Meadowlarks and Short-eared owls.

The text below has been copied:³⁶

«The Atocas Bay Conservation Project in Ontario was dedicated on October 26, 2004, to celebrate a cross-border (Ontario and Quebec) conservation partnership and honor the many partners who participated in this conservation success story on the Ottawa River.

The 1,600-acre Atocas Bay project was completed in 2001 under the auspices of the multipartner Eastern Habitat Joint Venture. The project is located in an area of high wetland loss. Once the property was purchased, Ducks Unlimited Canada restored more than 200 wetland basins, which had been drained for agriculture. The wildlife response to the improved habitat has been remarkable - breeding duck numbers have increased 24-fold. The property is actively managed for wildlife and for farming using conservation agricultural practices.

The project was made possible by generous funding from the Alabama Department of Conservation and Natural Resources, Canadian Wildlife Service, Ducks Unlimited, Ontario Ministry of Natural Resources, U.S. Fish and Wildlife Service, family and friends of Sterling Adams (president of Ducks Unlimited from 1961-1962), and Waterfowl Research Foundation, Inc. Since 1979, the state of Alabama has invested nearly \$1 million in wetland conservation across Canada. This has been leveraged to more than \$4 million under the matching provisions of the North American Wetlands Conservation Act.»³⁰

6.4 Pumpkinseed Bay is a bird staging location with over 200 bird species recorded, 7 km away (in Quebec)

Pumpkinseed Bay is a bird staging location east of the proposed cement plant on the Ottawa River. There have been over 200 bird species recorded at that location.

Ducks and geese also stay at L'Original Bay and at Pumpkinseed Bay in the spring and sometimes in the fall.

³⁵ Ontario Eastern Habitat Joint Venture - Partners conserving habitat for migratory birds. <https://www.ehvj.ca/where-we-work/ontario/> Sept. 10, 2020

³⁶ The Atocas Bay Conservation Project - A Hands Across the Border success story. <https://www.ducks.org/alabama/Alabama-Conservation-Projects/The-Atocas-Bay-Conservation-Project> Sept. 10, 2020.

These sites are all important ecosystems that support an abundance of plant life, animals, fish, native birds and migratory birds. Millions of dollars have been invested by governments and private groups in preserving and restoring ecosystems in this area.

These sites should be included in any environmental impact assessment study to truly evaluate the potential adverse effects of the proposed cement plant.

7. Risks of contaminated water overflow and runoff from the plant site

Extreme weather events are becoming more frequent with climate change.

In June 2020, a study from researchers at the Climate Research Division, Environment and Climate Change Canada was published in the Proceedings of the National Academy of Sciences of the United States of America.³⁷ Titled “Human influence has intensified extreme precipitation in North America”, they report that, according to their research, climate change has made:

- Rainfall more extreme and more frequent
- Storms with extreme rainfall more frequent
- The largest increases in extreme precipitation were in the eastern part of North America.

They concluded that climate change has caused an increase in frequency and intensity of regional precipitation extremes in North America and that, if human greenhouse gas emissions continue to increase, North America will see further increases in these extremes.

The same month, the National Capital Commission (NCC) and the City of Ottawa published a 2 volume report of 427 pages titled “Climate Projections for the National Capital Region Report”. Among key findings, they report that the National Capital Region will become much warmer and wetter over the coming decades with more extreme events and that precipitation will increase in volume and intensity.³⁸ Storm water capacity should be assessed was one of the recommendation.

It is of concern that the proposed cement plant facility has not put sufficient measures in place to handle weather extremes and that their basin systems could be overwhelmed and that contaminated water might overflow and runoff from their site. Their water storage and catchment systems might not have the capacity to contain extreme and unexpected volume of precipitations. Furthermore, there is also a high risk of runoff from the overall site in the case of extreme precipitations, bypassing basins and catchment structures.

The risks of potential overflow, overspill, discharge, and runoff of contaminated water from the proposed cement site are extremely high and there does not seem to be any contingency measures in place to prevent damage to the environment.

³⁷ Megan C. Kirchmeier-Young and Xuebin Zhang. 2020. Human influence has intensified extreme precipitation in North America. Proceedings of the National Academy of Sciences of the United States of America 117: 13308-13313. <https://www.pnas.org/content/117/24/13308> . Sept. 11, 2020

³⁸ Climate Projections for the National Capital Region Report, June 2020. <https://ncc-ccn.gc.ca/our-plans/climate-change-adaptation-initiative>

There is a high risk of extreme water runoff after a heavy rain in the quarry. This runoff water, if contaminated, could be accidentally pumped into the drain Charlebois and consequently in the Ottawa River because the quarry has a permit to pump water with a maximum volume of 6,336,000 litres per day which represents 2,312,640,000 litres per year into the drain Charlebois.³⁹

There will be 96 different pollutants on site deposited either from kiln or from fugitive emissions or from both that could be carried away by extreme precipitation. Petroleum coke is stored outdoors, at the edge of the quarry, and contains 19 different contaminants (Table 4 below).

The risks of potential overflow, overspill, discharge, and runoff of contaminated water from the proposed cement plant site directly in the drain Charlebois which drains directly into the Ottawa River are extremely high.

Table 4. List of the 19 pollutants present in the petroleum coke that will be stored outdoors on the site of the proposed cement plant.⁴⁰

Pollutant	CAS Number ^A	Pollutant	CAS Number ^A
SPM	N/A	Manganese	7439-96-5
Antimony	7440-36-0	Mercury	7439-97-6
Arsenic	7440-38-2	Nickel	7440-02-0
Barium ^B	7440-39-3	Selenium	7782-49-2
Beryllium	7440-41-7	Silver	7440-22-4
Cadmium	7440-43-9	Tellurium	13494-80-9
Chromium	7440-47-3	Thallium	7440-28-0
Cobalt	7440-48-4	Vanadium	7440-62-2
Copper	7440-50-8	Zinc	7440-66-6
Lead	7439-92-1		

^A CAS Registry Number, also referred to as CASRN or CAS Number, is a unique numerical identifier assigned by the Chemical Abstracts Service (CAS) to every chemical substance described in the open scientific literature

^B The rows coloured are pollutants that bio-accumulate in plant, fish, meat, eggs, and the environment. They also can enter the food-chain.

³⁹ Colacem Canada Inc. - Permit to take water No. 0636-BBCJ6M
<https://ero.ontario.ca/notice/013-4547>

⁴⁰ Colacem - Witness Statement - Sean Capstick (Air) 18Sep2020.pdf (Page 446)

Looking at the Revised Site Plan dated May 2018 (Figure 12), of particular concern are:

- 27 - Open storage petroleum coke
- 50 - Storm water basin
- 52 - Petroleum coke water treatment systems

The numbers above refer to the buildings and structures number on the Revised Site Plan (Figure 12).

27 and 52 - Open storage petroleum coke area and water treatment systems:

Petroleum coke is a toxic material. According to Colacem, it will contain 19 contaminants which are listed in Table 4 above.

Petroleum coke is stored outdoors in an open storage area and the risks of runoff of contaminated water following excessive precipitations are very high. Under extreme conditions, the contaminated water could escape either directly from the storage area or from the petroleum coke water treatment systems (Figure 13). Considering that it is at the edge of the quarry, the risk of that contaminated water being subsequently directly pumped from the quarry to the drain Charlebois are not negligible.

50 - Storm water basin:

This basin is located right next to the Charlebois Municipal Drain which drains directly in the Ottawa River. The basin capacity might be insufficient to cope with extreme rainfalls and consequently, there is a high risk of overflow or of runoff directly in the Charlebois Municipal Drain from the site (Figure 14).

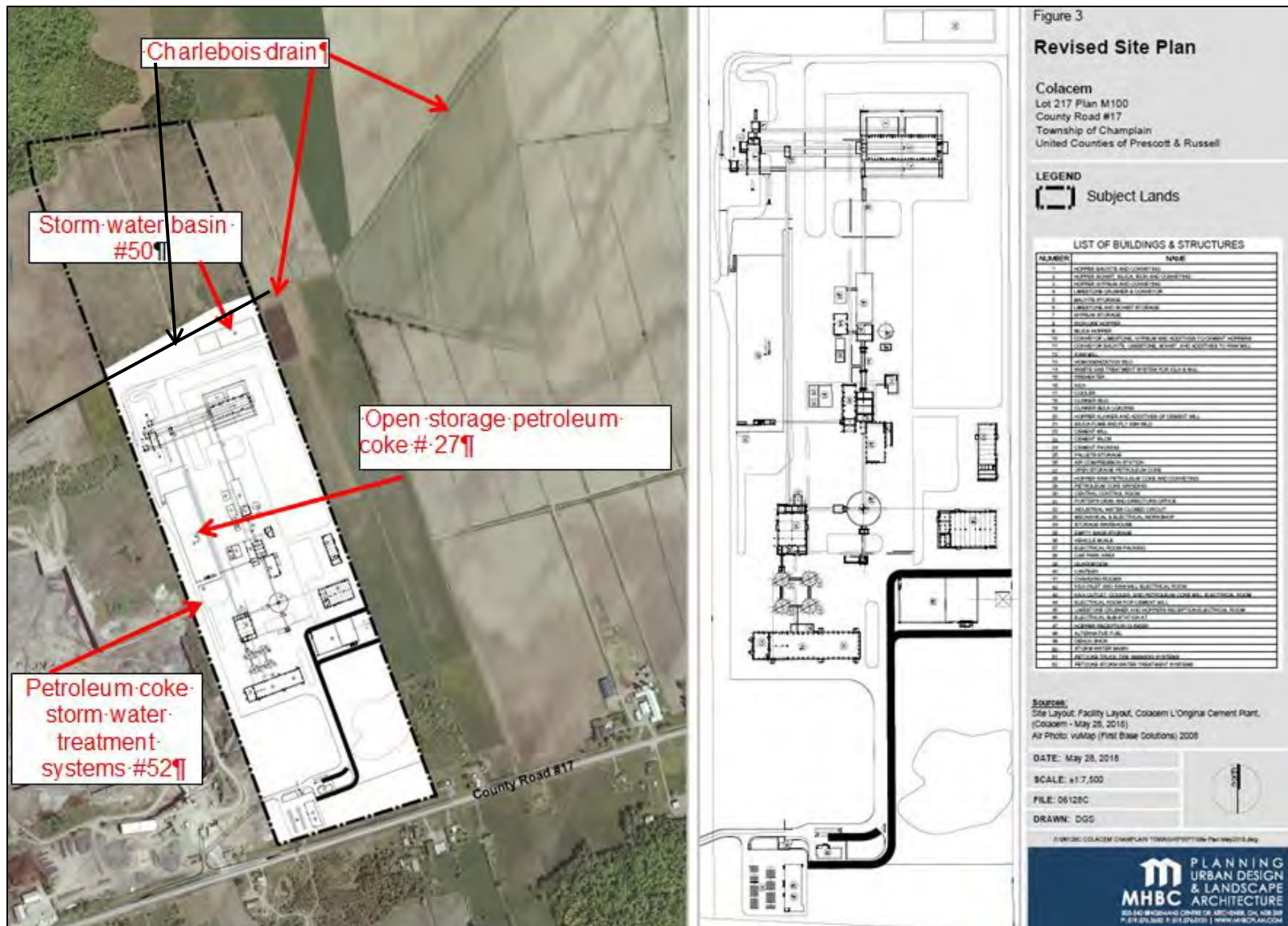


Figure 12. Colacem’s proposed cement plant Revised Site Plan. Screen capture of page 80.⁴¹ The drain Charlebois has been added in blue where the site overlaps its course. The text boxes and the red arrows refer to the structures of concern.

⁴¹ Colacem - Witness Statement - James Parkin (Planning) - 18September2020.PDF



Figure 13. Enlarged section of the Revised Site Plan showing the open storage petroleum coke (structure No. 27) and the petroleum coke storm water treatment systems (structure No. 52). Screen capture of page 80.⁴² Note the proximity to the quarry.

⁴² Colacem - Witness Statement - James Parkin (Planning) - 18September2020.PDF

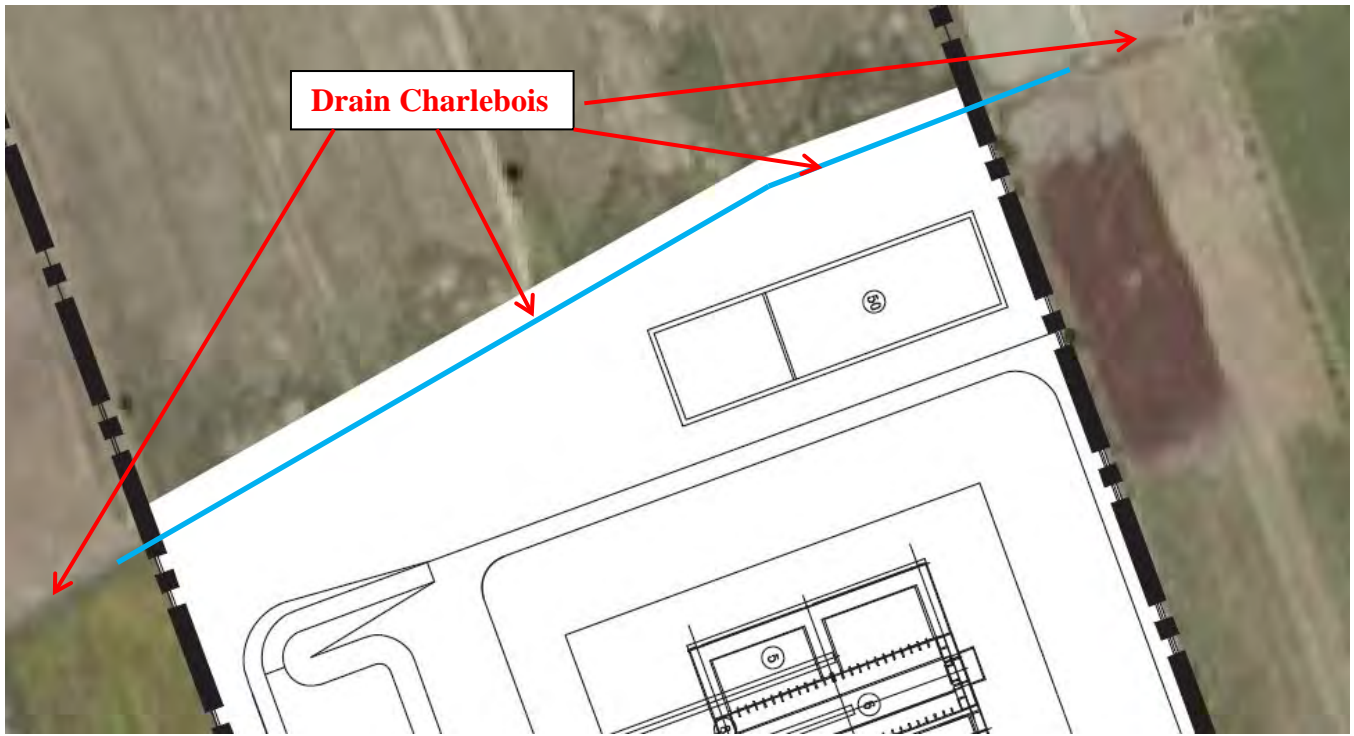


Figure 14. Enlarged section of the Revised Site Plan showing the Storm water basin (structure No. 50) and its proximity to the drain Charlebois (drawn in blue where it will be under the site). The arrows in red point to the drain Charlebois. Screen capture of page 80.⁴³ Note the proximity to the drain Charlebois.

⁴³ Colacem - Witness Statement - James Parkin (Planning) - 18September2020.PDF

8. Conclusion

Environmental risks of the pollutant emissions

Colacem's project will be discharging 96 pollutants in our environment either through the kiln smokestack emissions or through the fugitive emissions from raw materials or by both.

Overall, the proposed cement plant will be emitting 72 different pollutants through its kiln smokestack. Of these, 62 are problematic:

- 29% of which are known to be carcinogenic or possibly carcinogenic to animals
- 34% are classified as toxic or very toxic to aquatic organism
- 22% may be hazardous to the environment or it is strongly advised that this substance does not enter the environment
- 24% accumulate in plants or animals

More specifically:

- The proposed cement plant will be emitting 7.05 metric tonnes a day of nitrogen oxides. Nitrogen oxides, when not converted to nitric acid, can act as a nitrogen fertilizer in the environment. This can cause eutrophication of waterways. On terrestrial ecosystems, it can promote the growth of some plant species to the detriment of other species, breaking an equilibrium that might have taken centuries or more to reach.
- In addition, nitrogen oxides (NO_x, 7.05 tonnes a day) combined with sulfur oxides (SO_x, 3.67 tonnes a day) will be having a combined mass of 10.72 metric tonnes a day of pollutants that can produce acid rain,
- 15 different volatile organic compound (VOC) will be emitted by the proposed cement plant. Some of which are dangerous to human health or cause harm to the environment
- 15 different polycyclic aromatic hydrocarbon (PAH) will be emitted by the proposed cement plant. Cancer is a primary human health risk of exposure to PAHs and it has been linked to cardiovascular disease and poor foetal development
- The proposed cement plant will be emitting 2 different phthalates. One of these is considered as a Probable Human Carcinogen and there is sufficient evidence of carcinogenicity in animals. It is also considered as an endocrine disruptor. The other phthalate is a suspected endocrine disruptor in animals.
- There are 15 pollutants that will be emitted by Colacem that can be bio-accumulated and that are toxic or carcinogenic. They have the potential to be bio-accumulated in plants, milk, fish, meat and eggs and can contaminate our food-chain. They can also contaminate the fish caught in the Ottawa River.
- Ground level Ozone is the result of photochemical reactions between NO_x and volatile organic compounds (VOCs), both of which will be emitted from the Colacem proposed cement plant. Ozone can affect sensitive vegetation and ecosystems, including forests, parks, wildlife refuges and wilderness areas. In particular, ozone can harm sensitive vegetation during the growing season.

Colacem's field inventory/survey was limited

Colacem's field inventory/survey was limited to only the 56 hectares of the immediate site where the cement plant will be built. This represents 26% of Colacem's property. Furthermore, the surveys were only done in a single year, 2015, at one to four different dates only, depending on the type of survey and only at a few locations within the 56 hectares. Additionally, several types of surveys were combined and conducted at the same time. Overall, the site was only visited at 6 different times in 2015.

Considering the scale of the proposed cement plant project, there should have been more surveys done, ideally several times within each season of the year, and for several years to truly characterize and identify all the wildlife present. Also it should have been done on the entire property, including the **significant woodlands and the wetlands on Colacem's site** itself, and the ones adjacent to the property to truly determine what fauna and flora are present.

The person that did Colacem's field inventory/survey mentioned that some endangered, threatened and special concern species might be in the "**significant woodland**" present either on the quarry side of the property, on the proposed cement plant site, or on properties adjacent (Figure 1 and 2).⁴⁴ The same could be said for the **wetlands** on Colacem's property or adjacent to the property.

Ecosystems of particular concern:

- the Ottawa River which is less than 2 km North where thousands of migratory birds are observed in the spring and in the fall,
- the Alfred Bog (the most significant peatlands in all of Eastern Ontario), managed by Ontario Parks as a Provincial Nature Reserve, 9 km away West,
- Atocas Bay Conservation Project managed by Ducks Unlimited (wetlands, 8 km away West),
- Pumpkinseed Bay, located in Quebec (bird staging location with over 200 different bird species recorded, 7 km away East)

These sites are all important ecosystems that support an abundance of plant life, animals, fish, native birds and migratory birds. Millions of dollars have been invested by governments and private groups in preserving and restoring ecosystems in this area. The proposed cement plant emissions constitute an important threat to these sites.

These sites should be included in any environmental impact assessment study to truly evaluate the potential adverse effects of the proposed cement plant.

⁴⁴ Colacem - Witness Statement - Heather Melcher (Wildlife and Natural Environment) 18Sep2020.PDF

There are 14 Federally-listed Endangered, Threatened and Special Concern species that were observed on Colacem's site or in the area

Overall there are 14 species currently listed as at risk species that were observed on Colacem's site or in the area. There are 3 Endangered species, 6 Threatened species and 5 Special Concern species federally-listed. A 15th species is under consideration for addition and it is currently listed as endangered by the Ontario government.

Risks of potential overflow, overspill, discharge, and runoff of contaminated water

Extreme weather events are becoming more frequent with climate change. The risks of potential overflow, overspill, discharge, and runoff of contaminated water from the proposed cement plant site directly in the drain Charlebois and then in the Ottawa River are extremely high. There does not seem to be any contingency measures in place to prevent damage to the environment.

Appendix 7

Greenhouse gas emissions

1. Summary

- The proposed cement plant will be emitting 832,942 metric tonnes of greenhouse gas (GHG) per year from its kiln operation alone
- The plant will be operational for 50 years or more
- The plant will emit over 41,647,100 metric tonnes (41.6 Mt) of greenhouse gas during the first 50 years
- These are GHG equivalent to 181,074 cars emissions **each and every year** for the next 50 years
- Over 50 years, these emissions are **equivalent to 9,053,700** extra 2020 typical gasoline car emissions

This represents a major setback for any governmental greenhouse gas reduction programme.

Colacem will only pay a fraction of the greenhouse gas costs, if any, because of Ontario's Emissions Performance Standards program or Canada's Output-Based Pricing System.

Consequently, Ontarian taxpayers will have to bear most of Colacem greenhouse gas costs since their emissions will be added to Ontario's provincial greenhouse gas burden that must be collectively lowered.

- Colacem will not be paying their fair share of Ontario greenhouse gas costs burden
- in 2022, Ontarians would have had to pay, collectively, approximately \$ 40,000,000 to offset Colacem's GHG emissions (or \$25 million if using green energy)
- In 2023, Ontarians would have to pay \$ 51,000,000 (or \$32 million if exclusively using green energy)
- In 2024, Ontarians would have to pay \$ 63,000,000 (or \$39 million if exclusively using green energy)
- Canadians or Ontarians would have to contribute more money if Colacem was to receive grants and other subsidies from the either level of government to increase energy efficiency or for energy conversion or other programme.

The cost to offset Colacem’s GHG emissions (through retrofit, insulation, subsidies for electric vehicles, etc) would have been \$98.3 million a year in 2017-2018 according to the Ontario Ministry of the Environment and Climate Change at the time. This represents an average cost of \$118 per tonne of GHG reduction.

Colacem’s greenhouse gas emissions are equivalent to 181,074 gasoline car emissions a year. If the federal government wanted to offset Colacem’s emissions by subsidising the purchase of 181,074 electric cars, they would have to spend \$ 905,370,000 a year if they gave a subsidy of \$5,000 per car as they currently offer through their Incentives for Zero-Emission Vehicles Program (iZEV).

The province of Ontario, the citizens, the companies and industries already established here do not deserve this additional financial burden.

Even if Colacem used only green energy or non-fossil energy, it would still be emitting 519,480 metric tonnes a year of greenhouse gas because these emissions would come from the limestone calcination, regardless of the source of energy.

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2. Introduction

The proposed cement plant will be emitting greenhouse gas from most of the operations that are required to run a cement plant.

This document only discusses the greenhouse gas (GHG) emitted from the kiln operation. These include greenhouse gas emitted from the calcination operations and from the combustion of petroleum coke.

However, to truly be able to assess the true quantity of greenhouse gas that will be produced from Colacem, the following activities and operations should be included:

- Colacem's asphalt plant GHG emissions (on the quarry site)
- Colacem's lime plant GHG emissions (on the quarry site)
- Transport trucks GHG emissions (9,598,127 kilometres driven)
- All GHG emissions of any equipment and machinery using gasoline, fuel oil, diesel fuel or other form of fossil fuel in the quarry or on the proposed cement plant site

Some were likely previously excluded because of their low GHG emission volume but they now are all part of the same property belonging to Colacem.

3. Colacem's greenhouse gas emissions from the kiln operation

The calculations to determine Colacem's greenhouse gas (GHG) emissions from its kiln operation are fully detailed in Appendix 1, Section 4.10. A summary is presented below.

The kiln will produce greenhouse gas from two distinct processes:

- 1- Limestone calcination
- 2- Combustion of the petroleum coke to heat the kiln.

3.1 Limestone calcination

In cement manufacture, CO₂ is produced during the production of clinker which is made by heating a homogeneous mixture of raw materials in a rotary kiln at a high temperature. During the production of clinker, limestone, which is mainly calcium carbonate (CaCO₃), is heated, or calcined, which generates lime (CaO), and CO₂.

3.2 Combustion of petroleum coke to heat the kiln

The fuel needed to produce the heat required to break down the CaCO₃ is also a source of greenhouse gas. Petroleum coke (petcoke) will be the fuel that will be used by the proposed cement plant to produce the heat required to calcine the CaCO₃.

Using internationally agreed upon greenhouse gas calculation standards developed by the Intergovernmental Panel on Climate Change (IPCC), the calculated values are presented in Table 1.

Table 1. Yearly production of CO_{2e} by the proposed cement plant (CO_{2e} is carbon dioxide equivalent). **Details in Appendix 1, Section 4.10.**

Source	Metric tonnes per year
Metric tonnes of CO ₂ produced from raw material in a year (limestone calcination)	519,480 ^A
Metric tonnes of CO _{2e} produced from the kiln fuel (petroleum coke) in a year	313,462
Total number of metric tonnes of CO_{2e} emitted in a year	832,942

^A This quantity of greenhouse gas would be emitted by that process even if the whole plant was powered by clean energy. The calcination of the limestone will release this quantity of CO₂ regardless of its energy source.

In one of Colacem's documents, they stated:

«The annual GHG emissions estimated by Colacem are 783,702 tonnes based on the maximum production».¹

However they did not publicly disclosed how they arrived at this value. The estimate of 832,942 tonnes of GHG emissions, as detailed above, was based on Colacem's mass and energy information that they supplied and it was analysed using internationally agreed upon greenhouse gas calculation standard. This is the value that will be used in the discussions concerning greenhouse gas emissions from the kiln of the proposed cement plant.

3.3 Equivalent greenhouse gas emissions from cars

According to the EPA, in 2020, a car reportedly produces an average of 4.6 metric tonnes of CO₂ per year.² Considering that the proposed cement plant will be producing 832,942 metric tonnes of greenhouse gas a year, the proposed cement plant's yearly GHG emissions will be equivalent to more than 181,074 cars emissions per year.

The life expectancy of the cement plant is estimated to be approximately 50 years. Consequently this proposed plant is expected to produce the equivalent total GHG of 9,053,700 cars during the first 50 years of being in operation.

¹ Colacem - Witness Statement - Sean Capstick (Air) 18Sep2020.pdf (Page 656)

² Greenhouse Gas Emissions from a Typical Passenger Vehicle
<https://www.epa.gov/greenvehicles/greenhouse-gas-emissions-typical-passenger-vehicle>

4. Other sources of greenhouse gas from the proposed cement plant project

There are several other sources that will contribute to greenhouse gas emission once the proposed cement plant project becomes operational but they have not been included in Colacem's GHG emissions.

4.1 Heavy duty diesel transport trucks

Yearly, there will be:

- 94,076 trips (includes returns) of 35 tonnes heavy duty diesel transport truck in and out of the project's site to pick raw material and to deliver cement powder.
- The 35 tonnes diesel trucks will be driving 9,598,127 kilometres (This distance is equivalent to driving to the moon one way 25 times)
- 40,822 trips (includes returns) of 65 tonnes extra heavy duty diesel transport truck from the quarry to the project's site and back to deliver limestone.
- The 65 tonnes diesel trucks will be driving 40,822 kilometres³

Within the proposed cement plant site, every year, there will be 134,898 diesel truck trips coming or leaving the site, and probably idling occasionally, all producing tailpipe exhaust emission and GHG.

The estimated distance driven is conservative and the diesel fuel require to drive the 9,600,000 kilometers should be added to the GHG from the proposed cement plant because they are an integral part of its business plan. One cannot happen without the other.

4.2 Quarry operations

There are machineries and equipment that use diesel as fuel and that will emit GHG. They should all be accounted for:

- Loaders of raw material in the quarry
- Drill rigs
- Excavators
- Front loaders
- Unpaved road graders
- Water pumps
- Any other machinery or piece of equipment that use gasoline, fuel oil, diesel fuel or other form of fossil fuel in the quarry
- Blasting can emit GHG emissions and there will likely be 36 to 48 blasting a year instead of the 12 of the past.

³ See Appendix 1, Section 4.6, 4.7 and 4.8

4.3 Diesel machinery and equipment operating on the cement plant site

If there is some machinery or piece of equipment that use diesel as fuel and that will emit GHG. They should all be accounted for.

These have not been identified but there are likely to be some:

- front loaders
- diesel tank trucks for paved road watering
- asphalt road sweepers

4.4 Other activities that will be emitting GHG on Colacem's property

There are two other plants on the property. They both have a permit to operate 24 hours a day, 7 days a week and 365 days a year.

Their GHG emissions should also be accounted for:

- Colacem's asphalt plant (on the quarry site)
- Colacem's lime plant (on the quarry site)

5. Potential cost to the Canadian tax payers

Ontario has replaced the federal government carbon tax by its Emissions Performance Standards program.⁴ However, given that this program is still in transition, the federal government carbon tax will be used to calculate costs. Even if the carbon tax is replaced by a cap and trade system, the overall costs to the taxpayers and businesses will likely be similar.

The federal government, under the Greenhouse Gas Pollution Pricing Act, adopted on June 21, 2018, the federal carbon pollution pricing system (also known as the federal backstop). It has two parts:

- a regulatory charge on fuel, known as the fuel charge (carbon tax or levy)⁵
- a regulatory system for large industry, known as the Output-Based Pricing System (OBPS)⁶

⁴ Emissions Performance Standards program. <https://www.ontario.ca/page/emissions-performance-standards-program>

⁵ Fuel Charge Rates. Canada Revenue Agency. <https://www.canada.ca/en/revenue-agency/services/forms-publications/publications/fcrates/fuel-charge-rates.html>

⁶ Output-Based Pricing System <https://www.canada.ca/en/environment-climate-change/services/climate-change/pricing-pollution-how-it-will-work/output-based-pricing-system.html>

5.1 Regulatory charge on fuel, known as the fuel charge (carbon tax or levy)

In addition to subsidizing greenhouse gas emission reductions programs across various sectors of the economy, a fuel charge (carbon levy or carbon tax) can be imposed to encourage a reduction in GHG emissions by industries, governments, and consumers. As of April 2022, the carbon tax is \$ 50 per tonne of greenhouse gas (GHG) in Ontario. It will increase by \$15 a year for the next years. Some experts calculate that it should reach \$210 a tonne by 2030 in order for Canada to reach its Paris target.⁷

The Colacem proposed cement plant GHG emissions are not just an issue for Colacem, it is a global issue for the whole province and for the country. The GHG that this industry will produce will be added to our provincial total GHG and will push up the ceiling height which we must collectively bring down to reach our GHG target level. Consequently, this industry's GHG will increase the costs and efforts required to reach the target levels that Canada has agreed to in the Paris Accord. This translates in an additional burden which is shared with all the citizens of Ontario and Canada along with other provincial governments and agencies, industries and companies.

5.2 Regulatory system for large industry, known as the Output-Based Pricing System (OBPS)

The aim of the Output-Based Pricing System is to minimize competitiveness risks for emissions-intensive, trade-exposed industrial facilities (EITE), while retaining the carbon price signal and incentive to reduce GHG emissions.⁸

Quoted from ⁹:

«Large industrial facilities typically emit significant amounts of greenhouse gas pollution. But they often face competition from peers in jurisdictions that don't yet price pollution. The Output-Based Pricing System is designed to put a price on carbon pollution for industries while maintaining their competitive position relative to international peers.

The OBPS does this by setting a performance standard for each sector under the system. Companies have to pay for any emissions over the standard. If they perform better than the standard, they will have credits to sell. The result is that companies have an incentive to cut pollution and support clean innovation while minimizing the total cost they pay.»

⁷ Canada needs carbon tax of \$210 a tonne by 2030 to meet Paris targets, report says <https://nationalpost.com/news/politics/canada-needs-carbon-tax-of-210-a-tonne-by-2030-to-meet-paris-targets-report-says>

⁸ LASER TALKS – In Depth Laser Talks on Output Based Carbon Pricing. <https://canada.citizensclimatelobby.org/7588-2/>

⁹ Pricing carbon pollution for large industry: backgrounder. <https://www.canada.ca/en/environment-climate-change/services/climate-change/pricing-pollution-how-it-will-work/output-based-pricing-system/large-industry-backgrounder.html>

Naturally, it should be expected that heavy industries will pay their fair shares of the carbon pollution pricing system. However, because of the Output-Based Pricing System, in the case of cement plants, they are eligible to be reimbursed for up to 95% of the taxes collected under the federal Output-Based Pricing.⁹ Consequently, it is very likely that Colacem GHG emissions will be subsidized and that the taxpayers will bear most of the costs since their emissions will be added to the provincial GHG ceiling, but without Colacem paying their fair share of that cost.

Consequently, the figures in Table 2 below illustrate the equivalent financial burden that the proposed cement plant will be directly imposing on the province of Ontario by its GHG emissions. The true cost will probably be higher and it will be a mix of subsidies, greenhouse gas emission reduction programs and carbon tax or levy costs that will be implemented and/or levied or taxed.

Table 2. Estimated cost that collectively will have to be paid to remediate Colacem greenhouse gas emissions addition to Ontario total emissions.

Year	Cost per tonne of CO ₂ e	Total cost ^A	95% not paid by Colacem ¹⁰
2022	\$50	\$41,647,100	\$39,564,745 ^B
2023	\$65	\$54,141,230	\$51,434,169
2024	\$80	\$66,635,360	\$63,303,592
2025	\$95	\$79,129,490	\$75,173,016
2026	\$110	\$91,623,620	\$87,042,439
2027	\$125	\$104,117,750	\$98,911,863
2028	\$140	\$116,611,880	\$110,781,286
2029	\$155	\$129,106,010	\$122,650,710
2030	\$170	\$141,600,140	\$134,520,133

^A The quantity of greenhouse gas produced by Colacem is assumed to be 832,942 metric tonnes per year.

^B Note that this amount is possibly quite similar to the cap and trade system.

¹⁰ Pricing carbon pollution for large industry: backgrounder <https://www.canada.ca/en/environment-climate-change/services/climate-change/pricing-pollution-how-it-will-work/output-based-pricing-system/large-industry-backgrounder.html>

6. Scenario where 100 % of the kiln heating comes from green energy

Even if Colacem used only green energy or non-fossil energy to heat the kiln, it would still be producing 519,480 metric tonnes a year of greenhouse gas emitted from the limestone calcination. The GHG costs would be lower but still substantial (Table 3).

Table 3. Estimated cost that collectively will have to be paid to remediate Colacem greenhouse gas emissions addition to Ontario total emissions if it only uses green energy.

Year	Cost per tonne of CO ₂ e	Total cost ^A	95% not paid by Colacem ¹¹
2022	\$50	\$25,974,000	\$24,675,300
2023	\$65	\$33,766,200	\$32,077,890
2024	\$80	\$41,558,400	\$39,480,480
2025	\$95	\$49,350,600	\$46,883,070
2026	\$110	\$57,142,800	\$54,285,660
2027	\$125	\$64,935,000	\$61,688,250
2028	\$140	\$72,727,200	\$69,090,840
2029	\$155	\$80,519,400	\$76,493,430
2030	\$170	\$88,311,600	\$83,896,020

^A The quantity of greenhouse gas produced by Colacem is assumed to be 519,480 metric tonnes per year, coming exclusively from limestone calcination.

^B Note that this amount is possibly quite similar to the cap and trade system

¹¹ Pricing carbon pollution for large industry: backgrounder <https://www.canada.ca/en/environment-climate-change/services/climate-change/pricing-pollution-how-it-will-work/output-based-pricing-system/large-industry-backgrounder.html>

7. Costs associated with greenhouse gas emission reduction programs

Ontario and the federal government are or did subsidize greenhouse gas emission reduction programs across various sectors of the economy. These programs covered a wide range of activities such as improving energy efficiency, decreasing energy needs, using alternate fuel, recycling, among others.

Although the various Ontario greenhouse gas emission reductions programs were cancelled by the current elected government, this section does provide a rough estimate of potential costs which may or not be paid in the future, under a different provincial government or by a federal agency.

Chris Ballard, Ontario Minister of Environment and Climate Change, posted the Minister's Climate Change Action Plan (CCAP) progress report for 2017 on March 14, 2018 ¹².

The information in Figure 1 of this report is reproduced in Table 4 below (Figure 1, Section 3: Minister's CCAP Progress Report) (<https://www.ontario.ca/page/ministers-climate-change-action-plan-progress-report-2017> ¹²).

Table 4 below is a summary of the projected greenhouse gas emission reductions resulting from the various initiatives funded under the Climate Change Action Plan (CCAP) in 2017/18. The estimated GHG reductions in the year 2020 are shown in column 2 of the table. These values are the expected GHG reductions for the year 2020, assuming that all identified 2017/18 initiated investments continued to receive their full funding request until 2020/21.

The cumulative GHG reductions over the useful life of the initiatives, assuming that all identified 2017/18 initiated investments continued to receive their full funding request until 2020/21 are shown in column 3 of Table 4.

The lifetime cost per tonne of GHG reduction for the various initiatives averaged over their CCAP sector are shown in column 4. It is assumed that the GHG reduction effect continues until 2050.

Assuming that all identified 2017/18 initiated investments continued to receive their full funding request until 2020/21, the average cost of reducing the emission of greenhouse gas (GHG) across all sectors of the economy is \$ 118 per metric tonne. Among the various sectors, the minimum cost was \$15 per tonne and the maximum cost was \$396 per tonne (Table 4).

¹² Minister's Climate Change Action Plan progress report 2017. Published: March 14, 2018. Updated: March 15, 2018. Accessed May. 9, 2022.
<https://www.ontario.ca/page/ministers-climate-change-action-plan-progress-report-2017>
Cost details at: <https://www.ontario.ca/page/ministers-climate-change-action-plan-progress-report-2017#section-7>

Table 4. Estimated greenhouse gas (GHG) reductions associated with 2017/18 Initiatives Identified in CCAP.¹³

CCAP Sectors	GHG reductions in the year 2020 (tonnes of CO ₂ e) ¹	Cumulative GHG reductions until 2050 (2017 to 2050) (tonnes of CO ₂ e) ²	Lifetime cost per tonne ³
Homes, Buildings & Industry	1,893,821	50,245,000	\$96
Electric Vehicles	130,698	1,371,000	\$396
Transit, Freight & Active Transportation	244,507	3,193,000	\$242
Government	37,706	704,000	\$199
Agriculture, Forestry & Waste	52,300	1,445,000	\$15
Municipal and Indigenous Partnerships	148,112	3,547,000	\$85
Total	2,507,145	60,505,000	\$118⁴

¹ GHG reductions in 2020, assuming all identified 2017/18 initiated investments continued to receive their full funding request until 2020/21.

² Cumulative GHG reductions over the useful life of the initiatives, assuming all identified 2017/18 initiated investments continue to receive their full funding request until 2020/21.

³ The ratio of total investments in 2017/18 initiated CCAP programs until 2020/21 divided by the total cumulative GHG emission reductions of the initiatives over their useful life.

⁴ Includes all 2017/18 initiated enabling initiatives.

Table 5. Estimated cost using historical cost per tonne of greenhouse gas (GHG) reductions for the proposed cement plant lifetime. The values are taken from Table 4 above.

Cost of reducing Colacem equivalent emission of greenhouse gas	Cost for one year	Cumulated cost for 50 years ^A
Average cost of \$ 118 per tonne	\$ 98,287,156	\$ 4,914,357,800
Lowest cost of \$ 15 per tonne	\$ 12,494,130	\$ 624,706,500

^A The minimum life expectancy of the cement plant is estimated to be 50 years

¹³ Minister's Climate Change Action Plan progress report 2017. Published: March 14, 2018. Updated: March 15, 2018. Accessed May, 9, 2022.

<https://www.ontario.ca/page/ministers-climate-change-action-plan-progress-report-2017>

Cost details at: <https://www.ontario.ca/page/ministers-climate-change-action-plan-progress-report-2017#section-7>

Using grants in various sectors of our economy and using the average cost figure above, the Climate Change Action Plan would have had to spend an extra \$ 98.3 million (\$98,287,156) in 2017/18 in initiatives grants. This would have reduced the emissions of greenhouse gas equivalent to what the proposed cement plant will emit in one year of operation (832,942 metric tonnes of GHG per year) but spread over all sectors of our economy. Unfortunately, this would have only offset one year of GHG emitted by the cement plant (Table 5).

The proposed cement plant is expected to be operational for a minimum of 50 years. In this period, this plant will produce over 41,647,100 metric tonnes (41.6 Mt) of greenhouse gas. Assuming that the average cost of reducing the emission of greenhouse gas (GHG) across all sectors of the economy remains an average of \$ 118 per metric tonne, the cost to offset the additional GHG emissions from this proposed cement plant would be over \$ 4.9 billion for 50 years of operations, which is \$ 98.3 million a year (Table 4.3).

If the cost was the minimum cost from Table 4.2 (\$15 per metric tonne), then the cost to offset the GHG emissions from this proposed cement plant would cost more than \$ 625 million dollars for 50 years of operations, which is \$ 12.5 million a year (Table 4.3).

Considering that Colacem's proposed cement plant will be emitting 832,942 metric tonnes of greenhouse gas a year, at an average cost of \$118 per tonne of GHG reduction, it would have costed \$ 98,287,156 to offset Colacem GHG emissions for one year. These values were true in 2017-2018. They are likely higher for 2022.

8. Canada's Incentives for Zero-Emission Vehicles Program (iZEV)

«In order to encourage the adoption of ZEVs by Canadians and Canadian businesses, the Government of Canada launched the Incentives for Zero-Emission Vehicles (iZEV) Program in May 2019. There are many different makes and models of eligible zero-emission vehicles for purchase or lease that provide consumers with iZEV Program incentives of up to \$5,000.»¹⁴

Colacem's greenhouse gas emissions are equivalent to 181,074 gasoline car emissions a year. If the federal government wanted to offset Colacem's emissions by subsidising the purchase of 181,074 electric cars, they would have to spend \$ 905,370,000 a year if they gave a subsidy of \$5,000 per car as they currently offer through their Incentives for Zero-Emission Vehicles Program (iZEV).¹⁵

¹⁴ Zero-emission vehicles

<https://tc.canada.ca/en/road-transportation/innovative-technologies/zero-emission-vehicles>

¹⁵ Incentives for purchasing zero-emission vehicles

<https://tc.canada.ca/en/road-transportation/innovative-technologies/zero-emission-vehicles/incentives-purchasing-zero-emission-vehicles>

9. Conclusions

- The proposed cement plant will be emitting 832,942 metric tonnes of greenhouse gas per year from its kiln operation alone
- These are GHG equivalent to 181,074 cars emissions each and every year for the next 50 years
- The plant will be operational for 50 years or more
- The plant will emit over 41,647,100 metric tonnes (41.6 Mt) of greenhouse gas during that period
- Over 50 years, these emissions are equivalent to 9,053,700 extra 2020 typical car emissions

This represents a major setback for any governmental greenhouse gas reduction programme.

Colacem will only pay a fraction of the greenhouse gas costs, if any, because of Ontario's Emissions Performance Standards program or Canada's Output-Based Pricing System.

Consequently, Ontarian taxpayers will have to bear most of Colacem greenhouse gas costs since their emissions will be added to Ontario's provincial greenhouse gas burden that must be collectively lowered.

- Colacem will not be paying their fair share of Ontario greenhouse gas costs burden
- in 2022, Ontarians would have had to pay, collectively, approximately \$ 40,000,000 to offset Colacem's GHG emissions (or \$25 million if Colacem had been using green energy to heat the kiln)
- In 2023, Ontarians would have to pay \$ 51,000,000 (or \$32 million if using green energy)
- In 2024, Ontarians would have to pay \$ 63,000,000 (or \$39 million if using green energy)
- Canadians or Ontarians would have to contribute more money if Colacem was to receive grants and other subsidies from the either level of government to increase energy efficiency or for energy conversion or other programme.

The cost to offset Colacem's GHG emissions (through retrofit, insulation, subsidies for electric vehicles, etc) would have been \$98.3 million in 2017-2018 according to the Ontario Ministry of the Environment and Climate Change at the time. This represents an average cost of \$118 per tonne of GHG reduction.

Colacem's greenhouse gas emissions are equivalent to 181,074 gasoline car emissions a year. If the federal government wanted to offset Colacem's emissions by subsidising the purchase of 181,074 electric cars, they would have to spend \$ 905,370,000 a year if they gave a subsidy of \$5,000 per car as they currently offer through their Incentives for Zero-Emission Vehicles Program (iZEV).¹⁶

¹⁶ Incentives for purchasing zero-emission vehicles
<https://tc.canada.ca/en/road-transportation/innovative-technologies/zero-emission-vehicles/incentives-purchasing-zero-emission-vehicles>

The province of Ontario, the citizens, the companies and industries already established here do not deserve this additional financial burden.

Even if Colacem used only green energy or non-fossil energy, it would still be emitting 519,480 metric tonnes a year of greenhouse gas because these emissions would come from the limestone calcination, regardless of the source of energy.

Appendix 8

Risks to tourism and agriculture

1. Summary

Potential impact on tourism

The local economy relies heavily on agriculture and tourism. The region benefits from 2 million people that visit the area yearly because it is located approximately 75 kilometres away from Montreal and adjacent to Ottawa.

United Counties of Prescott and Russell's rich and established history of agriculture draws a large number of tourists year round. Specialty food, wine and beer producers, local markets, food festivals and agricultural destination holidays – all are strategically placed to welcome the large population that lives nearby.

The proposed cement plant will be built fronting County Road 17 and it will be less than 2 kilometres from the Ottawa River, a Canadian Heritage River.

County Road 17 is the major link between five of the eight municipalities of the United Counties of Prescott-Russell and it is the main way through which tourists access our area. The Ottawa River is another popular way through which vacationers enjoy our area.

The visual impact of the kiln smokestack, the smokestack plume, the cooling tower, and other structures will give our landscape the look of a heavy industrial zone, either from the road or from the river. This is never associated with a welcoming sight and it will be sufficient to deter many tourists from coming to this area.

The proposed cement plant will generate an additional 94,076 trips a year of 35 tonne heavy duty diesel transport trucks either coming in or out of Colacem's site. This increase in traffic will happen on County Road 17. This additional traffic has the potential of disturbing tourist and vacationers motoring or bicycling on our road.

Another tourism deterrent will be the odours. Colacem will be emitting 3.7 metric tonnes **per day** of sulphur dioxide through its kiln smokestack. Sulphur dioxide has a characteristic and pungent odor which is irritating, and which is associated with pulp and paper mills. These odours could be pervasive in an extensive radius around the cement plant. This could become a major obstacle to the expansion of tourism in our area, let alone to keep regular tourists returning here.

The risks to our tourism industry seem to outweigh any benefits.

Potential impact on agriculture

Colacem will be emitting a total of 96 pollutants:

- Some of which can directly damage plants and crops or poison livestock
- 15 of which can bio-accumulate in plants, milk, fish, meat and eggs

Among the pollutants that bio-accumulate are dioxins and furans, lead, mercury, and thallium.

These pollutants can and will land anywhere within a huge radius around the cement plant. No one has any control on where they will land as soon as they are emitted by Colacem.

Thereafter, they can enter the food supply chain and eventually end up in our plate. This could be extremely problematic for producers and farmers of this area. It takes years to develop a good reputation and to build consumers trust but, it can disappear very quickly after news of local food or local fish contamination by pollutants like dioxins, lead, or mercury.

Negative publicity could have a detrimental effect to our tourism or agricultural industry for many years to come.

Is it worth the risk to allow such a heavy industry to produce cement here?

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2. Introduction

The United Counties of Prescott-Russell, are ideally located between Montreal and Ottawa, approximately 75 kilometers away from Montreal and adjacent to Ottawa.

The proposed cement plant will be fronting County Road 17, near Alfred.

There are more than 3 million persons living within a 100 kilometer radius of L'Orignal. The area is ideally located on the Ottawa River and is a few kilometers from Hawkesbury. This area has a strong agriculture and tourism industry that draws many visitors every year.

3. Location

The proposed cement plant is located approximately mid-way between Ottawa and Montreal, less than 2 kilometers from the Ottawa River, a Canadian Heritage River, in Eastern Ontario.

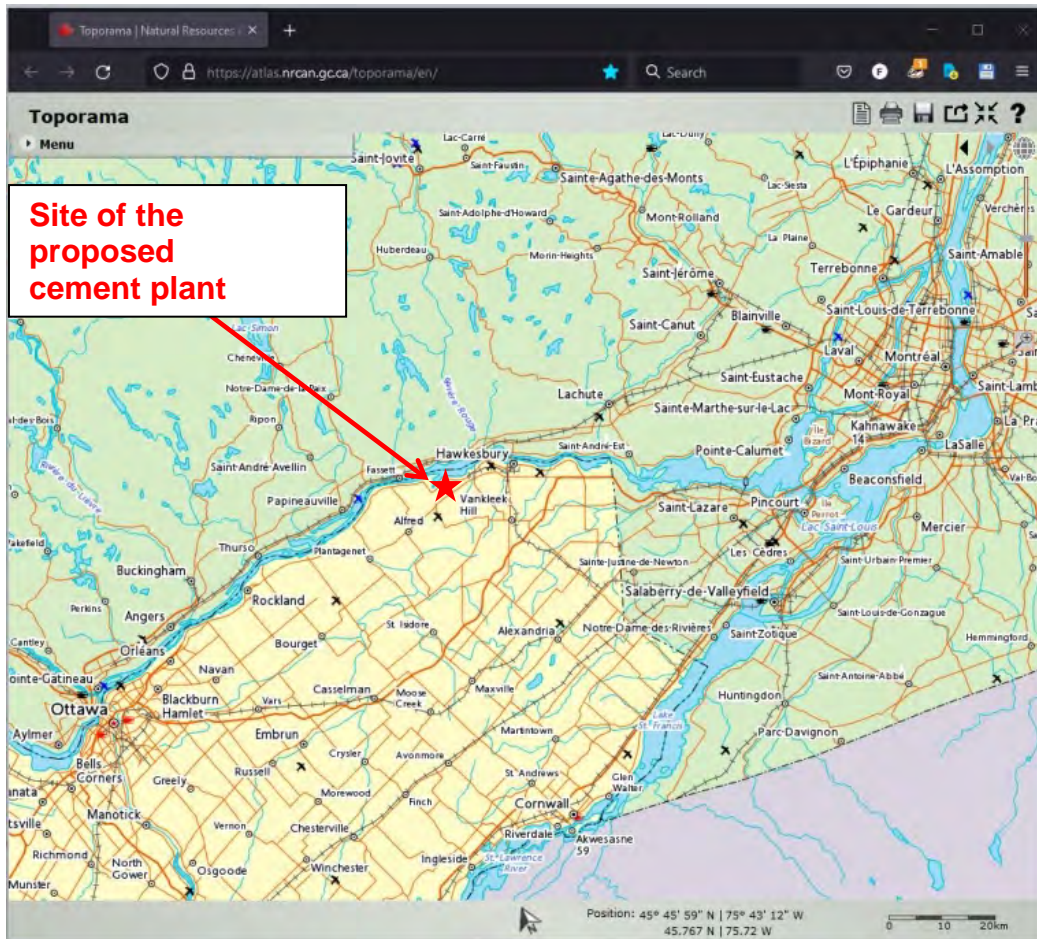


Figure 1. Map showing the location of the proposed cement plant in relation to Ottawa and Montreal.¹ The area in yellow is in Ontario and the area in green is in Québec.

¹ Map obtained from The Atlas of Canada - Toporama <https://atlas.nrcan.gc.ca/toporama/en/>

The road in front of the proposed cement plant site is County Road 17. This is the main road through which tourists access our area. It passes in front of the proposed cement plant site and it is the where the 35 tonne heavy duty diesel transport trucks will be coming in and will be leaving the site to deliver materials. It is anticipated that there will be a total of 94,076 extra trips a year either coming in or out of Colacem site because of their proposed cement plant.

4. Importance of agriculture and tourism to the United Counties of Prescott and Russell

The local economy relies heavily on agriculture and tourism. The region benefits from the 2 million people that visit the area yearly.

Prescott and Russell's rich and established history of agriculture draws a significant number of tourists year round. Specialty food, wine and beer producers, local markets, food festivals and agricultural destination holidays – all are strategically placed to welcome the large population that lives nearby.

4.1 Agriculture

According to the Ontario Ministry of Agriculture, Food and Rural Affairs, in 2016, the economic contribution of agricultural production in Prescott and Russell was \$344 million.²

This extract comes from the web site of the United Counties of Prescott and Russell, in Economic development – Sectors – Agriculture:

«All business sectors in Prescott and Russell benefit from the region's strong agricultural base.

13% of Ontario's Agricultural and Agri-business is in Prescott and Russell, Canada's oldest agricultural region. This long-established industry provides a stable source of raw material for all the other industries in the region that rely on it: manufacturing, food processing and tourism.

The soil in Prescott and Russell is ideal for growing diverse and high yield crops, allowing cash crop and biofuel enterprises to thrive. Agriculture is further supported by a skilled bilingual workforce (a high number of which have specific expertise with agriculture), robust shipping options and the proximity of large markets.»³

² Ministry of Agriculture, Food and Rural Affairs - Census Farms Classified by Economic Class and Total Value of Sales, by County, Ontario - 2016
http://www.omafra.gov.on.ca/english/stats/census/cty34_16.htm. (Sept. 15, 2020)

³ United Counties of Prescott and Russell web site - Economic development – Sectors – Agriculture and Tourism. http://www.en.prescott-russell.on.ca/business/economic_development/sectors (Sept. 15, 2020)

4.2 Tourism

On the web site of the United Counties of Prescott and Russell, in Economic development – Sectors – Tourism, they wrote:

«Benefit from the 2 million people that visit the region yearly.

Prescott and Russell’s proximity to large urban centres, and a growing demand for unique art, food, and outdoor experiences has created a need for new attractions and supporting businesses to serve customers. In the interest of further strengthening the region, the Prescott and Russell Economic Development and Tourism Department promotes new opportunities to engage tourists and entice new visitors.

Many more visitor-related ventures are supported by the added attraction of peaceful rural and wilderness areas that draw cyclists to recreational trails, hikers to the Larose forest and boaters to the Ottawa River.»⁴

There are 7 towns and villages along the Ottawa River. Starting east to west, they are: Chute-à-Blondeau, Hawkesbury, L’Orignal, Lefaivre, Treadwell, Wendover, and Rockland. Additionally, Alfred and Plantagenet are also on County Highway 17, which is the only road in front of the cement plant site.

The road along the Ottawa River and / or Highway 17 are both used by tourists to visit the area at a leisure pace. The Ottawa River is used by boaters coming from along the river and also from Montreal or from Ottawa.

There are three main draw to the area:

- 1- The peaceful rural and wilderness areas that draw cyclists to recreational trails, cross-country skiers, hikers to the Prescott-Russell Recreational Trail (from the Quebec border to Ottawa) or to the Larose forest and swimmers, canoers and boaters to the Ottawa River.
- 2- During most of the year, in this area, there are events almost every weekend. They are festivals, carnivals, rodeos, and fairs.
- 3- There are sports activities such as fishing, ice fishing, snowmobiling, gliding, ATV riding

Overall, agriculture and tourism play an extremely important part in the United Counties of Prescott-Russell’s economy. Internationally, there are fishing guides that emphasize the importance of the Ottawa River as one of the top 10 destination for muskies fishing.⁵

⁴ United Counties of Prescott and Russell web site - Economic development – Sectors – Agriculture and Tourism. http://www.en.prescott-russell.on.ca/business/economic_development/sectors (Sept. 15, 2020)

⁵ No fish tale: Ottawa River a destination for muskie anglers. <https://www.cbc.ca/news/canada/ottawa/muskie-fishing-ottawa-river-1.4230509> (Sept. 15, 2020)

5. Potential impact of Colacem's proposed cement plant on tourism

There are more than 3 million persons living within a 100 kilometer radius of L'Orignal, near where the proposed cement plant will be built. The area is ideally located on the river and a few kilometers from Hawkesbury. This area has a strong tourism industry that draws a lot of visitors. Having one of the heaviest type of industry in this area has the potential to have a severe negative impact on its tourism industry.

Figure 2 below illustrates the area in Ontario and in Quebec which will be within a radius of 43 kilometers of the smoke kiln stack of the proposed cement plant. Depending on ambient conditions, an observer 43 kilometers away, with an unobstructed line of sight, will see the upper part of the kiln smokestack along with its cooling tower, and its plume.



Figure 2. Map showing the municipalities that are within a radius of 43 kilometers from the kiln smokestack of the proposed cement plant. The municipalities in the yellow area are within Eastern Ontario while the ones in the green area are in Quebec.⁶

The towns of Lefavre, Alfred, Vankleek Hill, L'Orignal, and Hawkesbury are all within the 14 km zone that will have a view of the 100 meter top part of the kiln. The plume coming out of the kiln will have a volume of 1,000,000 cubic metres per hour. **This plume is expected to be visible from over 50 kilometer away depending on the weather and with an unobstructed line of sight.**

⁶ Map obtained from The Atlas of Canada - Toporama <https://atlas.nrcan.gc.ca/toporama/en/>

The visual impact of the kiln smokestack and cooling tower and other structures will give our landscape the look of a heavy industrial zone. This is never associated with a welcoming sight and it will be sufficient to deter many tourists from coming to this area. Who will have a positive comment to say when they get a full view of a kiln smokestack in full production?

Whether hiking, bicycling, driving on County Road 17 in front of the plant or boating on the Ottawa River or any other activity involving the river in this area, this proposed plant will be a deterrent.

Many tourists will likely modify their touring and outings to steer away from this area once the proposed cement plant is in full operation.

Another tourism deterrent will be the odours. Among the 96 different pollutants that will be emitted from the cement plant, Colacem will be emitting **3.7 metric tonnes per day** of sulphur dioxide through its kiln smokestack. Sulphur dioxide (SO₂) has a characteristic and pungent odor which is irritating, and which is associated with pulp and paper mills.

The yearly mass of these emissions will be as much and sometimes much more than the Thurso Fortress Cellulose Spécialisée (pulp and paper mill) plant emitted between 2008 and 2017 in Thurso, Québec, on the Ottawa River. This plant was called Papiers Fraser up to 2009 (Figure 3).

The SO₂ odours that could be dominating the air in an extensive radius around the cement plant could be a major obstacle to increase tourism in our area, let alone keep past tourists returning here.

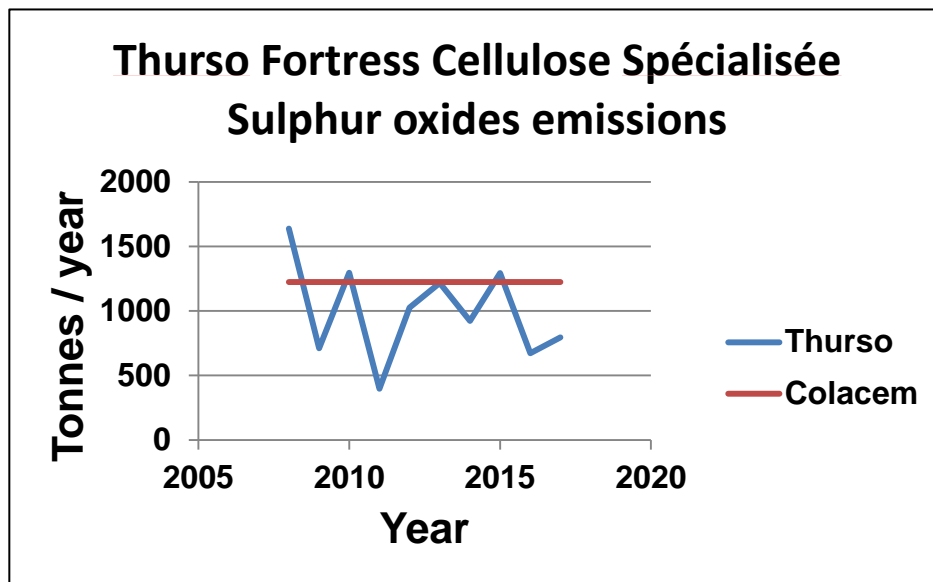


Figure 3. Comparison of sulphur dioxide emissions from the pulp and paper mill in Thurso, Québec from 2008 to 2017 with what the Colacem proposed cement plant will be emitting (1,224 tonnes per year).⁷

⁷ National Pollutant Release Inventory (NPRI)- Explore National Pollutant Release Inventory data

With social media being broadly popular, all it would take is a negative remark concerning foul smells in our area to impact tourism and damage years of efforts to attract more tourists here.

Possibly, many of our regular tourists might modify their touring and outing plans to steer away from this area once the plant is in operation.

Another deterrent will be the added 94,076 yearly truck trips of 35 tonne heavy duty diesel transport trucks either coming in or out of Colacem site to pick up cement powder or to deliver raw material (Figure 4).



Figure 4. Photo of a typical heavy duty diesel transport truck that will be used to transport material to and from the proposed cement plant. Screen capture from Display Boards used during Colacem Open Houses.⁸

This increase in traffic will happen on County Road 17 which is the major link between five of the eight municipalities of the United Counties of Prescott-Russell. This is the main road through which tourists access our area. This also has the potential of having a huge impact on motoring or bicycling tourist traffic.

The risks to our tourism industry seem to outweigh any potential benefit.

<https://www.canada.ca/en/environment-climate-change/services/national-pollutant-release-inventory/tools-resources-data/exploredata.html>

⁸ Colacem - Witness Statement - Rachel Gould (Consultation) 18Sep2020.PDF (Page 111, 126, 208, 223)

6. Potential impact of Colacem’s proposed cement plant on agriculture

Colacem will be emitting 96 pollutants (Appendix 1) of which 15 can be bio-accumulated in plants, milk, fish, native birds, migratory birds, meat and eggs. **The full list along with their toxicity is presented in Appendix 3.**

Some of these pollutants can directly damage plants and crops or poison livestock. Unfortunately, there is a more insidious way through which pollutants can harm agriculture and producers. It is by contaminating the food supply chain.

Accumulation of pollutants can occur when they fall on the ground, on the snow, or on the water and accumulate there until they are disturbed by natural or anthropogenic events. They also can accumulate in the food chain when they are absorbed by plants or animals which are subsequently eaten by other animals and so on in the food chain. These pollutants tend to accumulate from organism to organism. They can end up in livestock, fish, native birds, and migratory birds, eventually finish up being consumed by people (vegetables and fruits, crops, eggs, dairy products and meat). The 15 pollutants in Table 1 below can do that, and they also can be dangerous to wildlife, the environment and to the population health, among other things.

Table 1. List of persistent pollutants that will be emitted by the proposed cement plant that are known to be dangerous and that bio-accumulate in plant, fish, meat, eggs, and the environment (see Appendix 3, Section 3.6 for more details).

Organic pollutants	Inorganic pollutants
Benzo(a)anthracene	Barium
Benzo(a)pyrene	Lead
Benzo(k)fluoranthene	Mercury
Biphenyl	Selenium
Bis(2-ethylhexyl) phthalate	Thallium
Chrysene	
Dibenz(a,h)anthracene	
Dioxins and Furans (TEQ)	
Indeno(1,2,3-cd)pyrene	
Pyrene	

The odds are that some of these pollutants will end up on land or water within 0.1 to 50 kilometers of the kiln. And from there, they will eventually be absorbed by plants (through leaves or the soil) or by livestock (through the lungs, the skin, or by drinking or eating contaminated water or hay or grains). Animal feed, be it hay, cereals or grains, can accumulate some pollutants which are then passed to livestock when they are ingested.

Thereafter, they can enter the food supply chain and end up in our plate.

This could become very problematic for producers and farmers of this area. As the news concerning food security and food recalls constantly reminds us of how fragile the system can be, **traceability** is becoming more important in North America. Just remember of the onion recalls because of *Salmonella* in August and September 2020.⁹ Negative publicity concerning local food or local fish contamination by pollutants could have a detrimental effect to our tourism or agriculture industry for many years to come.

These pollutants can and will land anywhere within a huge radius around the cement plant. Nobody has any control on where they will land as soon as they are emitted by the kiln smokestack.

This is also a risk for many of the rest of the 96 pollutants that Colacem will be emitting that have the potential to passively accumulate in our area and beyond.

From a tourism point of view, the risks of fish in the Ottawa River becoming contaminated by these pollutants that bio-accumulate are high and they can have a huge impact on the tourism industry because of the many activities directly relating to fishing such as: winter ice fishing, winter fishing contests, muskies fishing¹⁰, “Free Fishing Weekend on Family Day Weekend” among others.

**Is it worth the risk to allow such a heavy industry to produce cement here?
The risks to our agriculture seem to outweigh the risks.**

7. Conclusion

Potential impact on tourism

The local economy relies heavily on agriculture and tourism. The region benefits from 2 million people that visit the area yearly because it is located approximately 75 kilometres away from Montreal and adjacent to Ottawa.

The United Counties of Prescott and Russell’s rich and established history of agriculture draws a large number of tourists year round. Specialty food, wine and beer producers, local markets, food festivals and agricultural destination holidays – all are strategically placed to welcome the large population that lives nearby.

The proposed cement plant will be built fronting County Road 17 and it will be less than 2 kilometres from the Ottawa River, a Canadian Heritage River.

⁹ Outbreak of Salmonella Newport Infections Linked to Onions <https://www.cdc.gov/salmonella/newport-07-20/index.html>

¹⁰ Ottawa River Muskie Factory <https://ottawarivermuskyfactory.com/>

County Road 17 is the major link between five of the eight municipalities of the United Counties of Prescott-Russell and it is the main way through which tourists access our area. The Ottawa River is another popular way through which vacationers enjoy our area.

The visual impact of the kiln smokestack, the smokestack plume, the cooling tower, and other structures will give our landscape the look of a heavy industrial zone, either from the road or from the river. This is never associated with a welcoming sight and it will be sufficient to deter many tourists from coming to this area.

The proposed cement plant will generate an additional 94,076 trips a year of 35 tonne heavy duty diesel transport trucks either coming in or out of Colacem's site. This increase in traffic will happen on County Road 17. This additional traffic has the potential of disturbing tourist and vacationers motoring or bicycling on our road.

Another tourism deterrent will be the odours. Colacem will be emitting 3.7 metric tonnes **per day** of sulphur dioxide through its kiln smokestack. Sulphur dioxide has a characteristic and pungent odor which is irritating, and which is associated with pulp and paper mills. These odours could be pervasive in an extensive radius around the cement plant. This could become a major obstacle to the expansion of tourism in our area, let alone to keep regular tourists returning here.

The risks to our tourism industry seem to outweigh any benefits.

Potential impact on agriculture

Colacem will be emitting a total of 96 pollutants:

- Some of which can directly damage plants and crops or poison livestock
- 15 of which can bio-accumulate in plants, milk, fish, meat and eggs

The least desirable pollutants that bio-accumulate are dioxins and furans, lead, mercury, and thallium.

These pollutants can and will land anywhere within a huge radius around the cement plant. Nobody has any control on where they will land as soon as they are emitted by Colacem.

Thereafter, they can enter the food supply chain and eventually end up in our plate. This could be extremely problematic for producers and farmers of this area. It takes years to develop a good reputation and to build consumers trust but, it can disappear very quickly after news of local food contamination by pollutants like dioxins, lead, or mercury.

Negative publicity could have a detrimental effect to our tourism or agriculture industry for many years to come.

Is it worth the risk to allow such a heavy industry to produce cement here?

Appendix 9

A prior request to designate the project

1. Introduction

A petition on the same proposed cement plant project was submitted to the Honourable Catherine McKenna on October 2, 2018 under CEAA 2012.

It had been submitted by Nature Canada, Ontario Nature, Nature Québec and the Vankleek Hill and District Nature Society.

The Honourable Catherine McKenna rejected the petition on April 1, 2019.

The letters exchanged between Nature Canada and Honourable Catherine McKenna are presented below.

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2. Copy of the letter submitted by Nature Canada, Ontario Nature, Nature Québec and the Vankleek Hill and District Nature Society to Minister McKenna on October 2, 2018.



October 2, 2018

The Honourable Catherine McKenna
Minister of Environment and Climate Change
200 Sacré-Coeur Boulevard
Gatineau, QC K1A 0H3
ec.ministre-minister.ec@canada.ca
Via Email

Dear Minister McKenna,

Re: Petition for the Designation of L'Original, Ontario Cement Plant as a Designated Project under CEAA 2012

The undersigned petitioners hereby request that you exercise your discretion under s. 14(2) of the *Canadian Environmental Assessment Act, 2012 (CEAA 2012)* to designate the proposed Colacem Canada Inc. cement plant at L'Original, Ontario as a designated project under *CEAA 2012*.

We further request that you strike a review panel under s. 38(1) of *CEAA 2012* to conduct the environmental assessment.

The petitioners are convinced that the attached documents clearly demonstrate that the proposed project has the potential to cause significant environmental impacts to components of the environment that are within federal legislative authority.

In particular, we wish to draw your attention to the fact that, as proposed, the Colacem Canada Inc. cement plant will emit roughly one megatonne of greenhouse gases into the atmosphere annually, without any serious analysis of mitigation measures by either the federal or provincial governments.

Thank you in advance for considering this petition; we look forward to your reply.

Sincerely,

Handwritten signature of Graham Saul.

Graham Saul
Executive Director, Nature Canada

Handwritten signature of Caroline Schultz.

Caroline Schultz
Executive Director, Ontario Nature



Christian Simard
Executive Director, Nature Québec



Dr. David Stringer
VanKleek Hill and District Nature Society

cc. Hon. Rod Phillips, Minister of Environment, Ontario

cc. Hon. Isabelle Melançon, Minister of Sustainable Development, the Environment and the Fight against Climate Change

cc. Ron Hallman, President, Canadian Environmental Assessment Agency

cc. Dr. David Stringer, VanKleek Hill and District Nature Society

3. Reply of the Honourable Catherine McKenna to the petition request on April 1, 2019

Ministre de l'Environnement et
du Changement climatique



Minister of Environment
and Climate Change

Ottawa, Canada K1A 0H3

APR 01 2019

Ms. Andrea Lesperance
Nature Canada
300 - 75 Albert Street
Ottawa ON K1P 5E7

Dear Ms. Lesperance:

Thank you for your letter of October 2, 2018, requesting that I designate the Colacem Canada Inc.'s L'Original Cement Plant Project under section 14 of the *Canadian Environmental Assessment Act, 2012* (CEAA 2012).

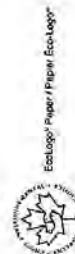
After careful consideration of the facts, the scientific advice provided by expert departments, including Fisheries and Oceans Canada, Global Affairs Canada, and Environment and Climate Change Canada, the provincial and federal oversight in place for the Project, and the proponent's project design, I have decided not to designate the Project for environmental assessment under CEAA 2012.

In your letter you expressed concern regarding potential environmental effects related to fish and fish habitat, and transboundary effects from greenhouse gas emissions and other contaminants.

With implementation of the Project's design features and legislative oversight provided by the *Fisheries Act* and the proposed federal *Greenhouse Gas Pollution Pricing Act*, adverse effects on fish and fish habitat and transboundary effects due to greenhouse gas emissions would be addressed and adequately managed. Greenhouse gas emissions would be reduced to the extent practicable by the proponent through the use of preheaters and precalciners, and the proponent's performance on greenhouse gases will be monitored through the reporting requirements pursuant to the federal Greenhouse Gas Reporting Program.

With the application of standard mitigation measures and provincial oversight provided by the *Environmental Protection Act* and the *Ontario Water Resources Act*, contaminants to air and water would also be addressed and adequately managed. Any effects on water quality are not likely to extend to the Ottawa River and air quality parameters would meet provincial regulatory standards near the property boundary.

.../2



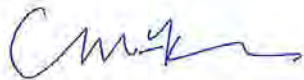
Canada

- 2 -

With respect to public and Indigenous participation, I am satisfied that provincial processes, including the municipal planning amendment process, provide opportunities for participation.

I appreciate you bringing these concerns to my attention and trust you will find this information helpful.

Sincerely,

A handwritten signature in blue ink, appearing to read 'C McKenna', with a stylized flourish at the end.

The Honourable Catherine McKenna, P.C., M. P.

Appendix 10

Fish habitats will be destroyed by the proposed cement plant project and by the quarry expansion

Colacem's did conduct an internal field inventory/survey, but only on 26% of its property.¹
See Section 7.1.2 of the Request and Appendix 6, Section 4 for details.

In the course of that work, it's author prepared a Request for Review which she submitted to the Fisheries and Oceans Canada (DFO) on June 20, 2016 (page 94-115)¹.

Fisheries and Oceans Canada (DFO) replied to this request in a letter dated September 20, 2017.
A copy of this letter is in Section 1 below.

According to the DFO letter, construction activities will include the infilling of approximately 3,911 m² of main drainage channel and 650 m² of intermittent drain channel.

The letter clearly states that:

« Based on the above information the Program has concluded that your proposal is likely to result in:

- serious harm to fish due to the destruction of fish habitat through infilling of approximately 4561m² of drain channel, which is prohibited under subsection 35(1) of the Fisheries Act.

In order to be in compliance with the above legislation you must apply for and obtain an authorization from the Program pursuant to paragraph 35(2)(b) of the Fisheries Act.»

Since that letter was received (dated September 20, 2017):

- As of September 18, 2020, no application for DFO Fisheries Act Authorization has been submitted (page 7, Item 15).¹
- The proposed cement plant site has been moved North 50 metres closer to the Drain Charlebois in 2018 (Section 2 below), seemingly covering or infilling the Drain Charlebois (Page 80)² **See Section 2 below to see the new site plan dated May 28, 2018.**

Furthermore, emphasising the fact that the quarry should have been considered as being an integral part of the proposed cement plant project when conducting impact assessments, the Drain Charlebois along with several types of drain channels will be destroyed when the quarry expands (page 257).³ They also likely are populated with fish. To our knowledge, this action has never been part of any Environmental Compliance Approval for the quarry or the cement plant project. See Section 3 below.

¹ Colacem - Witness Statement - Heather Melcher (Wildlife and Natural Environment) 18Sep2020.PDF

² Colacem - Witness Statement - James Parkin (Planning) - 18September2020.PDF

³ Colacem - Witness Statement - Joe Tomaselli (Noise) 18Sept2020.PDF

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1. **Copy of Fisheries and Oceans Canada's reply to Colacem's Request for Review, dated September 20, 2017.**



Fisheries and Oceans
Canada

Pêches et Océans
Canada

Central & Arctic Region
Fisheries Protection Program
867 Lakeshore Road,
Burlington, ON
L7S 1A1

Région centrale et de l'Arctique
Programme de protection des pêches
867 chemin Lakeshore
Burlington, ON
L7S 1A1

September 20, 2017

Our file *Notre référence*
16-HCAA-00941

Marc Bataille
Colacem Canada Inc.
2540 boulevard Daniel-Johnson
Laval, QC
H7T 2S3

Dear Mr. Bataille:

Subject: Proposal likely to result in serious harm to fish. Application for *Fisheries Act* authorization required – L'Orignal Cement Plant.

The Fisheries Protection Program (the Program) of Fisheries and Oceans Canada received your proposal on June 20, 2016. Please refer to the file number and title below:

DFO File No.: 16-HCAA-00941

Title: **Infilling, Charlebois Municipal Drain and tributaries, Township of Champlain, SAR**

Your proposal has been reviewed to determine whether it is likely to: 1) result in serious harm to fish, which is prohibited under subsection 35(1) of the *Fisheries Act*, and 2) impact aquatic species at risk listed on Schedule 1 of the *Species at Risk Act* in a manner that contravenes sections 32, 33 or 58 of that Act.

Since there are no SARA listed species or their habitats identified in the project area, no additional approvals under SARA will be required for your proposed activities.

Our review considered the following:

- Request for review form submitted to DFO by Amber Sabourin of Golder Associates on June 20, 2016.
- Report on the biological and physical characteristics of the site prepared by Golder Associates and enclosed with the request for review including:
 - Site photos provided by Golder Associates
 - Map of the proposed project location
 - Fish sampling data

Canada

Screen capture of page 1 of the Copy of Fisheries and Oceans Canada's reply to Colacem's Request for Review, dated September 20, 2017. Page 116 of Colacem - Witness Statement - Heather Melcher (Wildlife and Natural Environment) 18Sep2020.PDF

- Email correspondence from Amber Sabourin to Maude Tremblay of DFO on May 17, 2017

We understand that you propose to:

- Construct a cement plant consisting of 52 buildings or structures on a site that is approximately 56 hectares, located at Lot 217, Plan M100, L'Orignal Ontario.
- Construction activities will include the infilling of approximately 3911m² of main drainage channel and 650m² of intermittent drain channel.

Based on the above information the Program has concluded that your proposal is likely to result in:

- serious harm to fish due to the destruction of fish habitat through infilling of approximately 4561m² of drain channel, which is prohibited under subsection 35(1) of the *Fisheries Act*.

In order to be in compliance with the above legislation you must apply for and obtain an authorization from the Program pursuant to paragraph 35(2)(b) of the *Fisheries Act*.

Should you choose to proceed with your proposal, please complete the Application for Authorization under Paragraph 35(2)(b) of the *Fisheries Act* Form available at <http://www.dfo-mpo.gc.ca/pnw-ppe/reviews-revues/authorization-autorisation-eng.html>.

Often times, relocation and redesign of a project can avoid and mitigate impacts and the potential for serious harm to fish. Should you elect to relocate or redesign your project, this could reduce the impacts of your proposal to a level where an authorization is not required.

Please be advised that any unauthorized work, undertaking or activity that contravenes section 35 of the *Fisheries Act* or sections 32, 33 or 58 of SARA could lead to corrective action such as enforcement.

It is also your *Duty to Notify* DFO if you have caused, or are about to cause, serious harm to fish that are part of or support a commercial, recreational or Aboriginal fishery. Such notifications should be directed to (<http://www.dfo-mpo.gc.ca/pnw-ppe/violation-infracton/index-eng.html>).

The Program may not issue a *Fisheries Act* authorization unless there has been a determination that an assessment for your project is not required, or an assessment decision that allows the project to proceed has been issued.

Screen capture of page 2 of the Copy of Fisheries and Oceans Canada's reply to Colacem's Request for Review, dated September 20, 2017. Page 117 of Colacem - Witness Statement - Heather Melcher (Wildlife and Natural Environment) 18Sep2020.PDF

If you have any questions, please contact William Glass at our Burlington office at (905) 319-7234 or by email at William.glass@dfo-mpo.gc.ca. Please refer to the file number referenced above when corresponding with the Program.

Yours sincerely,

A handwritten signature in cursive script that reads "Jennifer Thomas". The signature is written in black ink and is positioned above the typed name.

Jennifer Thomas
A/ Manager, Regulatory Review
Fisheries Protection Program

Copy: William Glass – DFO
Amber Sabourin – Golder Associates

Screen capture of page 3 of the Copy of Fisheries and Oceans Canada's reply to Colacem's Request for Review, dated September 20, 2017. Page 118 of Colacem - Witness Statement - Heather Melcher (Wildlife and Natural Environment) 18Sep2020.PDF

2. The Drain Charlebois is now included in the proposed cement plant site, and will be possibly covered or infilled.

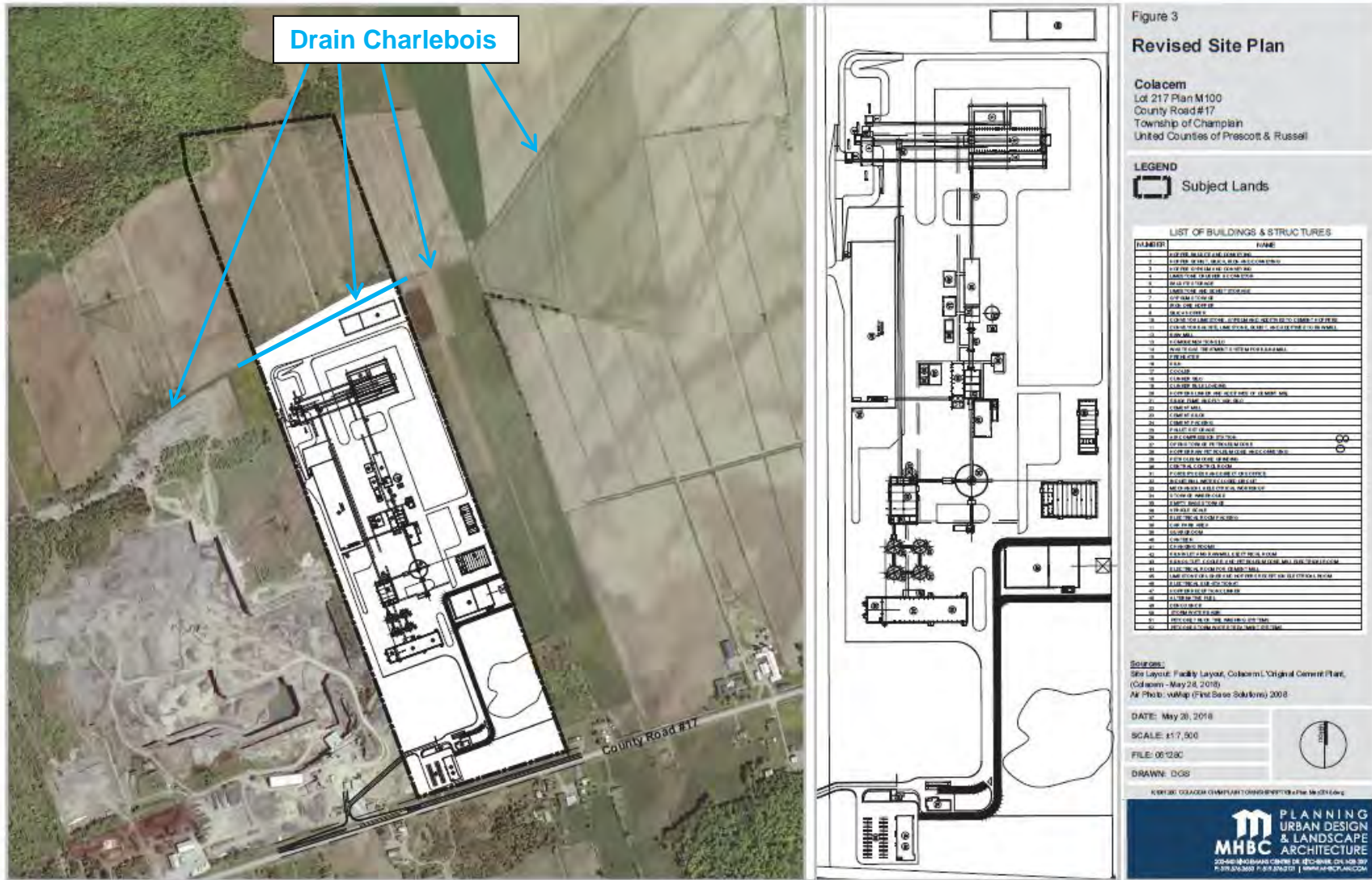


Figure 1. Colacem’s proposed cement plant Revised Site Plan dated May 28, 2018. Screen capture of page 80. ⁴ The Drain Charlebois has been added in blue where the site overlaps its course and arrows were added to point to the Drain Charlebois.

⁴ Colacem - Witness Statement - James Parkin (Planning) - 18September2020.PDF

3. Planned expansion of the quarry showing the area that will be mined by the quarry (surrounded by a yellow line), along with all the drain channels apparent on this aerial photo and on Figure 1 above that are likely populated by fish that will be destroyed, including the Drain Charlebois which is also populated by fish.

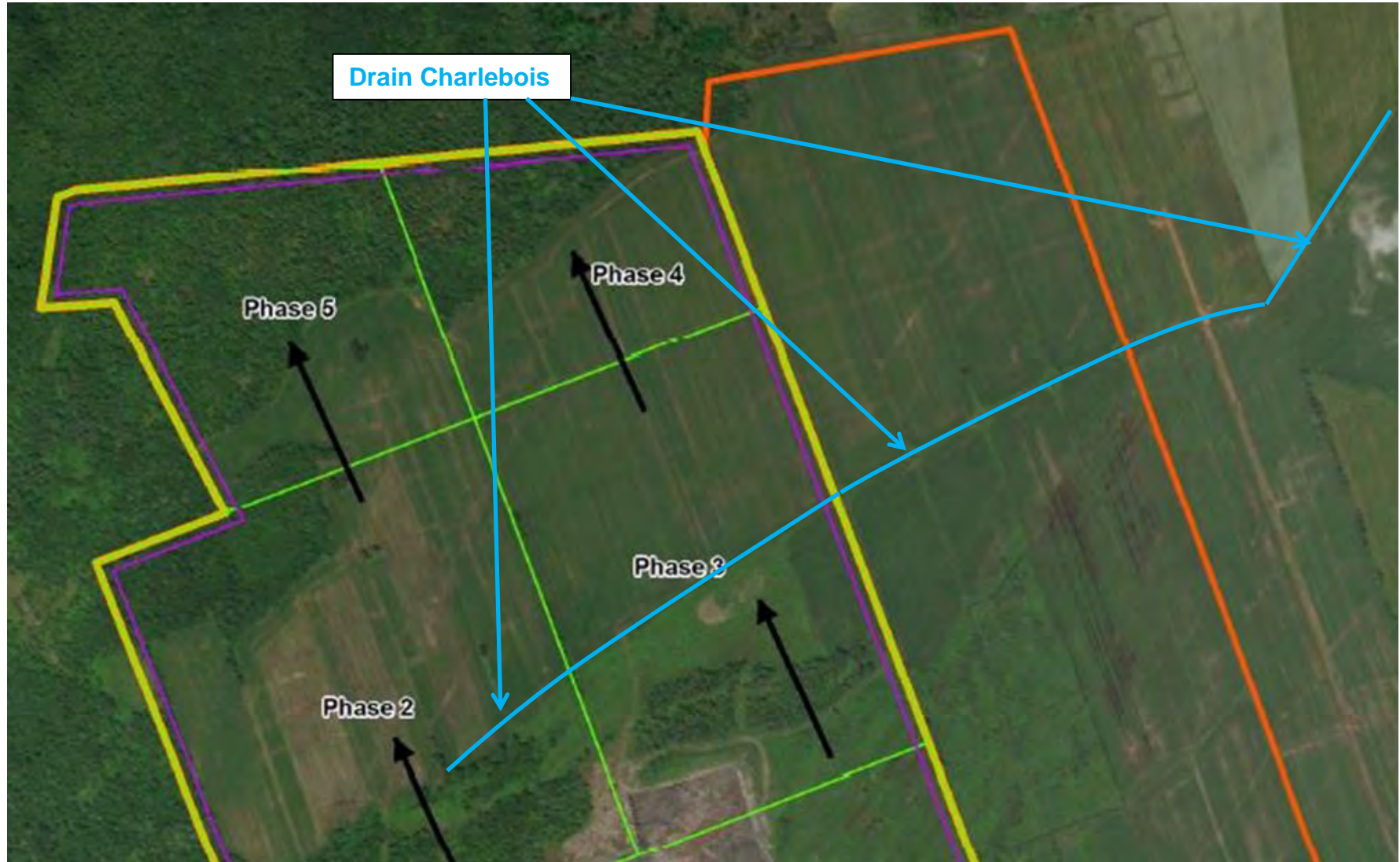


Figure 2. Enlarged section illustrating the planned expansion of the quarry. Screen capture of the “Quarry Site Phasing/Sequencing Plan” on page 257.⁵ The Drain Charlebois has been added in blue and arrows were added to point to the Drain Charlebois.

There is a copy of the quarry’s full expansion plan in Appendix 6, Section 4, Figure 4.

⁵ Colacem - Witness Statement - Joe Tomaselli (Noise) 18Sept2020.PDF



1870 chemin de la Baie, L'Original ON K0B 1K0
actionchamplain.communications@gmail.com

The Honourable Steven Guilbeault
Minister of Environment and Climate Change
Fontaine Building 12th floor
200 Sacré-Coeur Blvd
Gatineau QC K1A 0H3
Telephone: 819-938-3813
ministre-minister@ec.gc.ca;
Steven.Guilbeault@parl.gc.ca
cc: The Impact Assessment Agency of Canada information@iaac-aeic.gc.ca
Via Email

Dear Minister Guilbeault,

Re: Petition for the Designation of a proposed cement plant project in L'Original, Ontario as a Designated Project under the Impact Assessment Act (2019)

Action Champlain, an incorporated not-for-profit organization formed by a group of residents, hereby requests that you exercise your discretion under subsection 9(1) of Impact Assessment Act (IAA 2019) to designate Colacem Canada Inc.'s proposed cement plant at L'Original, Ontario as a designated project under IAA 2019.

We further request that you strike a review panel under subsection 36(1) of the IAA 2019 to conduct a full Federal Impact Assessment with public hearings.

Nature Canada submitted a petition on the same project to the Honorable Catherine McKenna in 2018, under CEAA 2012, and it was rejected.

However, in 2020, during a Local Planning Appeal Tribunal (LPAT) hearings against the zoning change for this project, expert witness reports and testimony revealed to the Tribunal that numerous errors of facts, important omissions, and some misrepresentation were made to the Ontario Ministry of the Environment, Conservation and Parks (MECP) in Colacem's application for an Environmental Compliance Approval (ECA). All of which were advantageous to Colacem in that they greatly underestimated pollutant emissions from the proposed cement plant and its adjacent quarry.

We believe that this new information is cardinal and that it will amply justify designating this project because it has the potential to cause significant environmental impacts to components of the environment that are within federal legislative authority.

The document attached to this letter fully details and provides references supporting all the facts that are presented herein.

This Ontario project will have transboundary impact in both the province of Quebec, and internationally.

- ***Through water pollution:*** Located mid-way between Ottawa and Montreal, the proposed cement plant is less than 2 kilometres from the Ottawa River, a Canadian Heritage River that is the border between Ontario and Quebec. **Several Ontario and Quebec municipalities rely on the River for their water supply.** Pollution from the kiln smokestack has the potential to pollute the atmosphere and the Ottawa River. There are also great risks of potential overflow, overspill, discharge, and runoff of contaminated water from the cement plant site and from the quarry to the Ottawa River through the Drain Charlebois which transects both sites.
- ***Through air pollution:*** Air pollution emitted by Colacem will impact both Ontario and Quebec similarly. The proposed cement plant, through its kiln smokestack alone, will be emitting 20 tonnes of 72 different pollutants per day, 15 of which are known to be dangerous and to bio-accumulate in plant, fish, native birds, migratory birds, meat, and the environment. Many are classified as carcinogenic, toxic to humans or animals and are hazardous to the environment.
- ***Through interprovincial and international transport***
 - Heavy duty 35 tonne diesel transport trucks will bring in raw material from Ontario, Québec and internationally shipped to ports in Quebec. Seventy percent of the cement powder produced will be delivered via Quebec: either for domestic use or to be exported internationally by ship from Montreal's ports, the impact of which merits federal review.
 - Overall, there will be 71,700 truck trips a year to/from Quebec, driving 9,598,127 kilometers.
 - These transport trucks will be emitting GHG (greenhouse gas), particulate matter, CO (carbon monoxide), NO_x (nitrogen oxide), SO₂ (sulphur dioxide), and dioxins and furans through their tailpipe.

Potential for Significant Adverse Environmental Effects

- ***There are 14 Species at risks (federally-listed)***

Three are listed as Endangered, six as Threatened, and five as Special Concern and have been observed either on Colacem's property or in the area. A 15th species is under consideration by the federal government for addition and it is currently listed as endangered by the Ontario government.
- ***Some of the significant woodlands and the wetlands on Colacem's site will be destroyed***

The quarry expansion will destroy an important area which could harbor several species that are endangered, threatened and of special concern in these significant woodlands and wetlands.
- ***Fish habitats will be destroyed by the cement plant project and by its quarry expansion***

The Drain Charlebois, which runs directly into the Ottawa River, transects the site of the proposed cement plant project and the site of its quarry expansion. There are also numerous drainage channels where fish have also been observed. The cement plant overlaps the Drain Charlebois in the 2018 site plan. Furthermore, the Drain Charlebois, along with several types of drain channel, on the quarry site, will be completely destroyed when the quarry expands.
- ***Colacem's commissioned field inventory/survey was very narrow in scope***

Colacem's field inventory/survey was limited to one year (2015), 6 visits, and to 26% of its property (the cement plant site). None of the significant woodlands and the wetlands on the

quarry site were surveyed although they will be totally destroyed by the quarry expansion and Colacem's surveyor speculated that some species at risks could be located there or on the adjacent properties.

- **Habitats of particular concern are:**

- the Ottawa River (a Canadian Heritage River) which is less than 2 km North where thousands of migratory birds are observed in the spring and in the fall,
- the Alfred Bog (Alfred Bog is the largest high-quality peat bog in southern Ontario), managed by Ontario Parks as a Provincial Nature Reserve, 9 km away West,
- Atocas Bay Conservation Project managed by Ducks Unlimited (wetland, 8 km away West),
- Pumpkinseed Bay, located in Quebec (bird staging location with over 200 different bird species recorded, 7 km away East)

These sites are all important ecosystems that support an abundance of plant life, animals, fish, native birds and migratory birds. Millions of dollars have been invested by governments and private groups in preserving and restoring ecosystems in this area.

The cumulative effects of physical activities reported for the project was erroneous

The Ontario Ministry of the Environment, Conservation and Parks asked Colacem to supply an Air Quality Cumulative Effects Study, including emissions from:

- On Colacem's property: the proposed cement plant, the quarry, the asphalt plant, the lime plant
- Ivaco Rolling Mills facility located 4 kilometres east
- Background air quality

The quarry emissions were found to be underestimated by **a factor of 4 to 5 times** during the LPAT hearings, the conservatism of the quarry activities were exaggerated by **a factor of 240%**, and the wrong quarry emission model was used. **Emissions will be extensively above all of the levels that Colacem has reported.**

The project might adversely impact First Nations communities

The Mohawks of Kanésatake, a community on the shore of the Lake of Two Mountains in southwestern Quebec, are the closest First Nation most likely to be exposed:

- To contamination of their atmosphere from the kiln smokestack emissions
- To fish, migratory birds and wildlife contamination by pollutants in the Ottawa River. All of which are part of their traditional diet

There have not been any apparent or meaningful consultations with potentially impacted First Nations living downstream from the proposed cement plant project by Colacem or by any level of government to understand how this project may adversely impact their aboriginal or treaty rights.

The government of Ontario is not acting in the best interest of the First Nations, Ontario, Quebec or Canada by denying a review of Colacem's Environmental Compliance Approval (ECA).

The Ontario Minister of the Ministry of the Environment, Conservation and Parks (MECP), Minister Piccini, despite the well documented and significant errors and omissions in Colacem's Cumulative Effects Study, systematically refused to revoke their Environmental Compliance Approval and refused to ask for new studies based on accurate facts, on science and on evidence.

This project will hinder the Government of Canada's ability to meet its climate change commitments

Overall, the proposed cement plant project will be emitting 0.83 megatonne (Mt) of greenhouse gas (GHG) a year. This represents a total of 41.6 Mt of GHG in the first 50 years. Colacem's yearly GHG emissions are equivalent to the **emissions of 181,074 gasoline cars a year**, not including the transport trucks GHG emissions.

This project will damage Canada's sustainability

The proposed cement plant, through its kiln smokestack alone, will be emitting 20 tonnes of 72 different pollutants per day, 6,660 tonnes per year and 333,000 tonnes for the first 50 years of the project. This is not sustainable. These mass of pollutants do not simply disappear. They will accumulate in our environment.

This project was rejected by 93% of the community

There is no social acceptability by the community for this project. When the public was consulted by either the lower-tier municipality (Champlain Township) or the upper-tier municipality (United Counties of Prescott and Russell), there was a 93 % rejection of the project when written opinions were counted.

Damaging impact on the regional economy that relies on agriculture and tourism

- *This project has the potential to severely disrupt and negatively affect regular regional economic activities because it will:*

- Impact the agricultural land in the surrounding area, its productivity and sustainability
- Impact food security by potentially contaminating various sources of food (wild and domestic)
- Harm agricultural industries
- Harm tourism industries
- Compromise local and regional economic well-being into the future

- *Potential negative impact of the proposed cement plant on agriculture*

The area is mostly prime agricultural land which has been at the heart of this region for generations. In fact 13% of Ontario's Agricultural and Agri-business is in Prescott and Russell which is also Canada's oldest agricultural region. This represents a huge portion of the local economy. In 2016, the economic contribution of agricultural production in Prescott and Russell was \$344 million.

Colacem will be emitting a total of 96 different pollutants (kiln and fugitive emissions):

- Some of which can directly damage plants, crops, and poison livestock
- 15 of which can bio-accumulate in plants, milk, fish, native and migratory birds, meat and eggs and in our food chain

- *Potential negative impact of the proposed cement plant on tourism*

The local economy relies heavily on tourism. The region benefits from 2 million people that visit the area yearly.

- The proposed cement plant will be built fronting County Road 17. This road is the major link between five of the eight municipalities of the United Counties of Prescott-Russell and it is the main way through which tourists access the area. The Ottawa River is another popular way through which vacationers enjoy the area.
- A major tourism deterrent will be the odours. Colacem will be emitting **3.7 metric tonnes per day** of sulphur dioxide through its kiln smokestack. Sulphur dioxide has a

characteristic and pungent odor which is irritating, and which is associated with pulp and paper mills. These odours could be pervasive in an extensive radius around the cement plant which could be a major irritant to residents and local businesses, and **an obstacle to the expansion of tourism in the area.**

- The visual impact of the kiln smokestack, the smokestack plume, the cooling tower, and other structures will give our landscape the look of a heavy industrial zone, either from the road or from the river. This is never associated with a welcoming sight and it will deter many tourists from coming to the area.

This cement plant project is not essential nor is needed to support our Canadian infrastructures and construction industries.

There were 16 cement plants in operation in Canada in 2018 with 11 in Ontario and Quebec. Despite the fact that the cement industry is reportedly only operating at 60 % capacity, in 2018, we exported one third of the total Canadian production of cement and this proportion has been steadily increasing since 2013. Internationally, Canada has been a net exporter of cement for many years and is consistently classified among the top 4 to 6 biggest exporters of cement in the world.

This cement plant project is not essential and is not needed. Furthermore, it does have the potential to have devastating effects that will fundamentally undermine the environmental and socioeconomic landscape of our region by jeopardizing hundreds of jobs and by decreasing the area's ability to contribute to Canada's food security.

We are confident that the attached documents clearly demonstrate that the proposed project has the potential to cause significant environmental impacts to components of the environment that are within federal legislative authority.

First Nations, Ontario and Quebec residents affected by this project deserve to have an accurate, thorough, and comprehensive Impact Assessment done on this project.

It should be noted that there has not been an environmental impact study conducted by the municipal, provincial or federal government.

Thank you in advance for considering this petition; we look forward to your reply.

Sincerely,



Élaine Demers
Director, Action Champlain

- cc. Hon. Marc Miller, Minister of Crown-Indigenous Relations
- cc. Victor Bonspille, Grand Chief of the Mohawk Council of Kanesatake
- cc. Hon. Benoit Charette, Ministre, Ministère de l'Environnement et de la Lutte contre les changements climatiques, Québec
- cc. Francis Drouin, Member of Parliament, Glengarry-Prescott-Russell (Ontario), Parliamentary Secretary to the Minister of Agriculture and Agri-Food
- cc. Hon. David Piccini, Minister of the Ministry of the Environment, Conservation and Parks, Ontario
- cc. Terence Hubbard, President, Impact Assessment Agency of Canada
- cc. Stéphane Lauzon, Member of Parliament, Argenteuil—La Petite-Nation (Québec), Parliamentary Secretary for the Minister of Seniors
- cc. Daniel Lafleur, United Counties of Prescott and Russell Warden
- cc. Normand Riopel, Champlain Township Mayor
- cc. Paula Assaly, mairesse de Hawkesbury
- cc. Pierre Thauvette, maire de Grenville
- cc. Tom Arnold, maire de Grenville-sur-la-Rouge

Le 13 septembre 2022

Bonjour à vous, membres du Conseil municipal de La Nation

Au même titre que vous, plusieurs citoyens sont très soucieux des questions de l'environnement ET des processus législatifs et administratifs qui les gouvernent. C'est ainsi qu'au cours des dernières années, j'ai pu suivre, comme vous, l'évolution du dossier complexe de la Colacem dans les CUP-R. Voici que maintenant, d'importants nouveaux développements se sont produits et qui méritent que vous y portiez votre attention.

Par cette lettre, je viens vous demander d'appuyer les récentes décisions du Conseil de la Municipalité de Champlain et des citoyens regroupés sous la bannière d'Action Champlain qui s'opposent à ce projet dont la mise-en-place comporte des failles trop importantes.

Je pense qu'en tant que Municipalité voisine à celle de Champlain, ce sujet vous concerne directement et que La Nation ne peut demeurer silencieuse. Ses [élu.es](#) doivent faire connaître leur avis sur cet important dossier à leurs collègues de cette municipalité voisine. On appuie leur courage, ou pas.

Brièvement, je me limiterai à ne rappeler ici que deux points centraux en lien avec ma demande :

- Le 30 août dernier, le regroupement Action Champlain a remis au ministre fédéral de l'environnement, M. Steven Guilbeault, une demande de désignation formelle pour ce projet d'usine en vertu de la *Loi sur l'évaluation d'impact* (voir « *Petition for the Designation of a proposed cement plant project in L'Orignal, Ontario as a Designated Project under the Impact Assessment Act (2019)* »). Ce type d'évaluation permet aux agences attitrées du gouvernement fédéral d'exercer une véritable étude d'impacts environnementaux qui auraient été négligés, nommément dans ce cas-ci. À noter que le tout était accompagné d'études probantes dans le cadre de la lutte aux GES pour étayer les raisons de leur demande.
- Il y a quelques jours, les élu.es de la Municipalité de Champlain ont accordé formellement leur appui à cette demande de la part de ce regroupement d'action citoyenne.

En conclusion, je vous invite à votre tour à bien considérer tous les impacts de cette usine, compte-tenu de l'engagement du Canada à limiter ses émissions de GES. La venue de la Colacem aurait des impacts régionaux, bien au-delà de L'Orignal. Bref, cela serait en nette opposition à tout plan d'action climatique qui doit être, d'abord et avant tout, en résonance avec notre vocation agricole régionale.

Enfin, je réitère ma demande : à l'exemple des élu.es de la municipalité de Champlain, j'espère pouvoir compter sur l'appui clair de chacun·e d'entre vous pour soutenir cette démarche d'Action Champlain auprès de notre ministre de l'environnement.

Je vous fais mes meilleures salutations.

Michel-André Lavergne,
St-Bernardin

September 19, 2022

NAME
ADDRESS

Re : Ranger Municipal Drain

Dear **NAME**

The Municipality of The Nation has received concerns from landowners about failing crossings and low flow during peak rain events and springtime alongside the Ranger municipal drain.

Following an inspection of the municipal drain by the Drainage Superintendent, it was determined that it would be beneficial for the municipality to appoint an engineer to update the existing crossing details list as the existing engineer's report was enacted in 1983.

This municipal drain being along a County Road was not updated to meet new By-law requirements passed by the road authority to build access culverts without end walls. The culverts cannot be replaced under the maintenance clause of the existing engineer's report and would require the report to be revised including the schedule of assessment to reflect the requirements' added cost and structure installation.

An Emergency Designation to replace two culverts was granted by the Minister of Agriculture, Food and Rural Affairs on September 12, 2022. This was conditional to a complete review under Section 78 of the Drainage Act.

The Municipality of The Nation would like to notify agencies that it will proceed to appoint a Drainage Engineering Firm under section 78(1) of the Ontario Drainage Act to review culvert structures for replacement and look at the profile of the Ranger municipal drain future maintenance.

Sincerely,

Josée Brizard, CAO-Clerk
The Nation Municipality
958, route 500 W, Casselman
613-764-5444, extension 235
jbrizard@nationmun.ca

Meeting to Consider

Adam Municipal Drain

Section 78 Report

Presented by Monica Shade, P. Eng.

Overview

- ▶ Purpose of Meeting
- ▶ History
- ▶ Section 78 Initiation
- ▶ Engineer's Report
- ▶ Next Steps

Purpose of Meeting

- ▶ Engineer to present final report;
- ▶ Council gives landowners an opportunity to provide input and ask questions;
- ▶ Council decides if the project should proceed;
- ▶ Council provisionally adopts the Engineer's Report.

Drain History

Adopted in 1978

Drain was adopted as
approximately 4,050 feet

Drainage area of 132.2 acres.

Drain History - Changes Made

Upper end enclosed in 2012/2013.



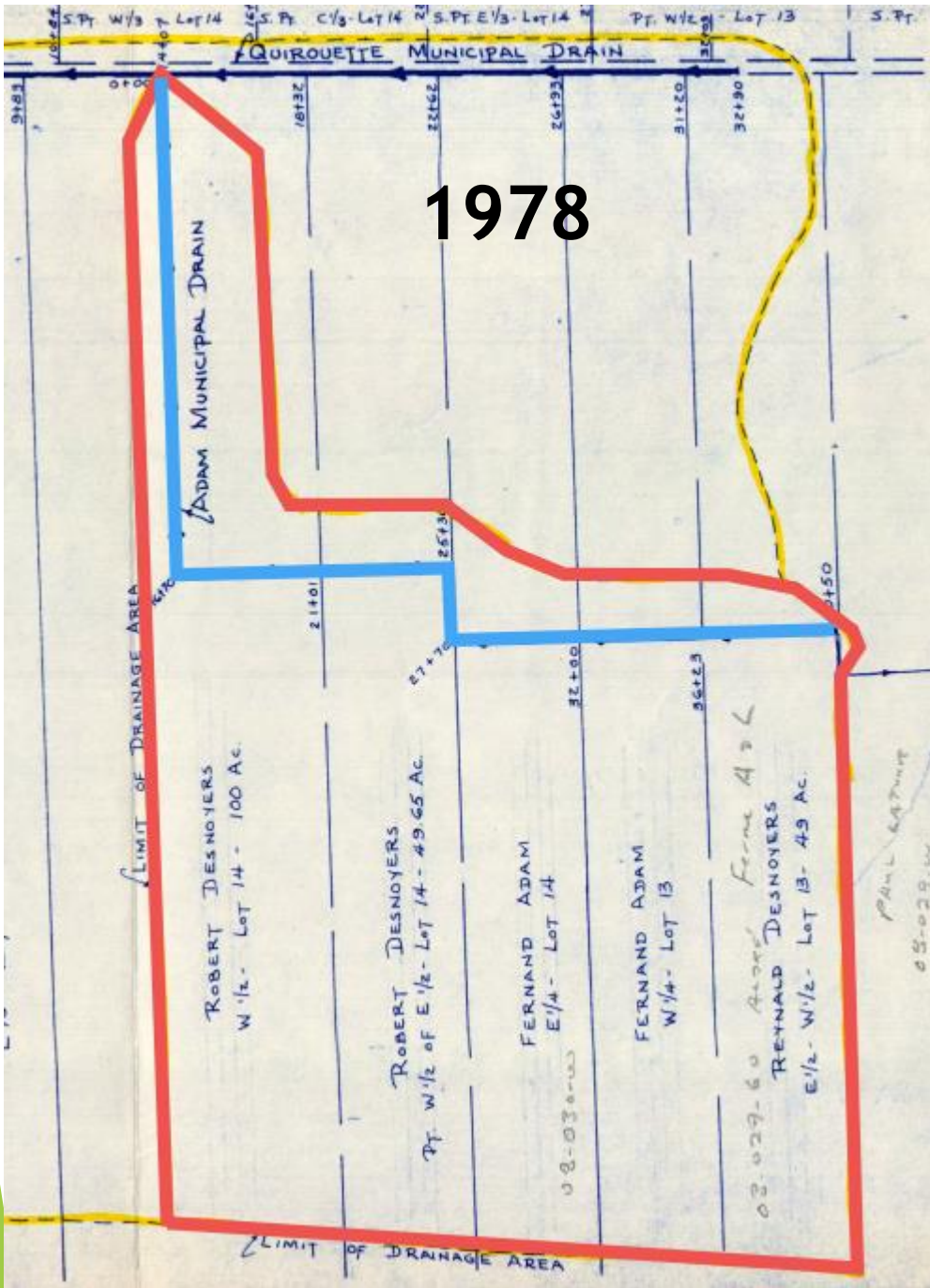
Bottom end enclosed and redirected in 2015/2016.



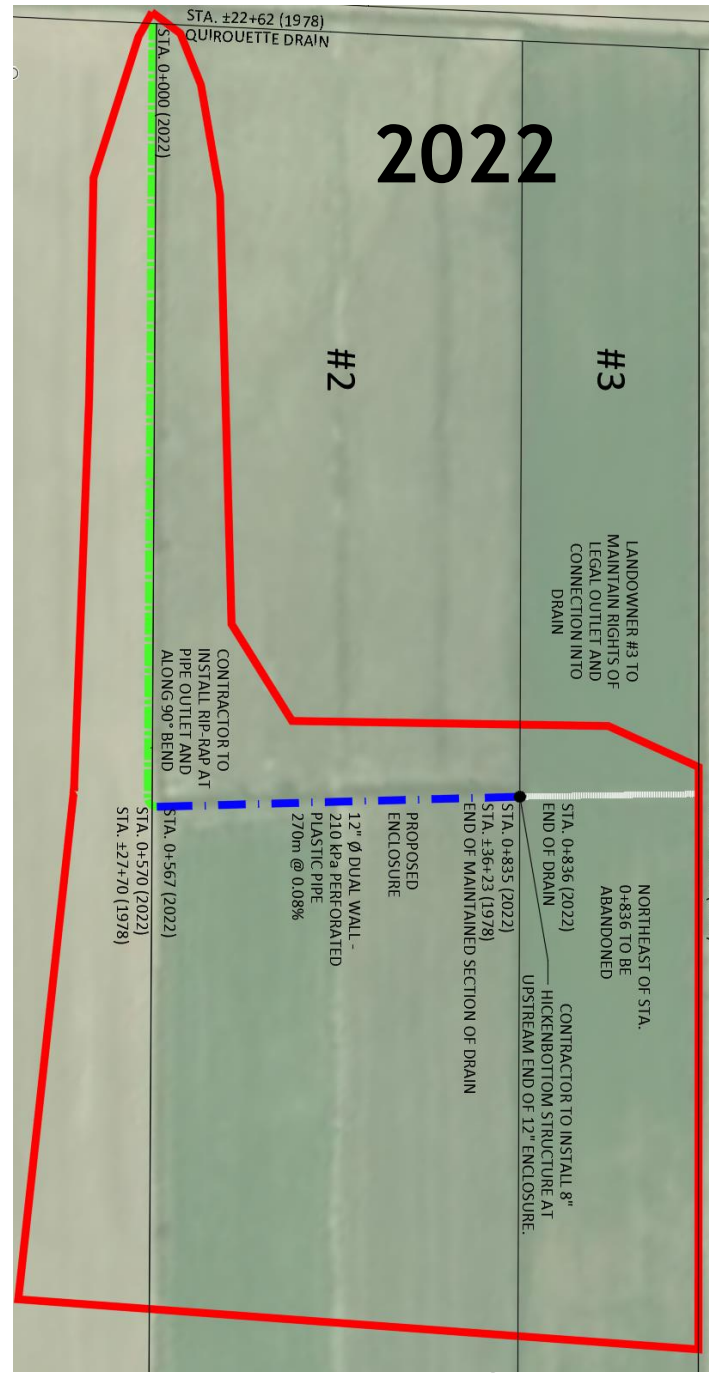
Watershed area reduced.

Maps

1978



2022



Section 78 Report - 2022

- ▶ Three main changes made:
 - ▶ 1) Update alignment and new watershed limits;
 - ▶ 2) Abandon upper limit that was previously enclosed;
 - ▶ 3) New enclosure across central property.

Engineer's Report (S. 78)

- ▶ Drain History
- ▶ Description of the watershed and the alignment of the drain (1978 & 2022)
- ▶ Plan & Profile
- ▶ Design Considerations
- ▶ Assessment Schedules
- ▶ Future Maintenance

Assessment Schedules - Schedule 'A'

- ▶ Assessment for future maintenance of the open channel
- ▶ Also includes the engineering cost as a “Special Benefit” assessment.

Assessment Schedules - Schedule 'B'

- ▶ Assessment for the proposed enclosure of the central portion of the channel.

Assessment Schedules - Schedule 'C' & 'D'

- ▶ “C” - Assessment for maintenance of the enclosed system (pipe flushing, etc.).
- ▶ “D” - Assessment for future replacement.

Next Steps



Council gives landowners an opportunity to provide input;



Council decides if the project should proceed;



Council provisionally adopts the Engineer's Report;



Clerk circulates the provisional by-law and notice of the sitting of the Court of Revision.

Appeal Opportunities

Court of Revision

- opportunity to appeal assessments;

Tribunal

- appeals for technical aspects of the works;

Referee

- appeals on legal aspects of the work.



Question Period

ADAM MUNICIPAL DRAIN

S. 78 ENGINEER'S REPORT
THE NATION MUNICIPALITY

SHADE
GROUP INC

PREPARED BY
SHADE GROUP INC
P.O. BOX 1716
ALMONTE, ONTARIO
K0A 1A0

AUGUST 2022

EXECUTIVE SUMMARY

This Engineer's Report has been prepared under Section 78 of the *Drainage Act, R.S.O. 1990, c. D. 17* (henceforth referred to as *the Act*). The initial purpose of this undertaking was to update the Engineer's Report to reflect the current alignment of the municipal drain and address changes that have been made to the previously adopted system. As part of the undertaking, a landowner requested an improvement by way of an enclosure. This has been included as part of the project.

Shade Group Inc. (SGI) was appointed as the engineer for the Adam Municipal Drain project under by-law 23-2022 on February 28, 2022, with the request to prepare a Section 78 Engineer's Report to amend the 1978 Engineer's Report.

The previous adopted Engineer's Report was prepared in July 1978 by Lascelles, Seguin, Tremblay Consulting Engineers. The Engineer's Report prepared in 1978 includes the Demers-Cayer, Adam and Quirouette Municipal Drains, all of which were petitioned under Section 4 of the Drainage Act (1975). This report has been prepared in reference only to the Adam Municipal Drain – maintenance works associated with the Demers-Cayer and Quirouette Municipal Drain remain under separate cover.

Enclosed within the Appendices of this report you will find: a location plan showing the location of the watershed and drain (Appendix A); a map of the watershed (Appendix B), profile drawings (Appendix B), an updated assessment schedules for the distribution of costs (Appendix C) and construction specifications (Appendix D).

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APPENDICES

APPENDIX A: LOCATION PLAN

APPENDIX B: PLAN & PROFILE DRAWINGS

APPENDIX C: ASSESSMENT SCHEDULES

APPENDIX D: CONSTRUCTION SPECIFICATIONS

DRAFT

1.0 OBJECTIVE

This Engineer's Report has been prepared under Section 78 of the *Drainage Act, R.S.O. 1990, c. D. 17* (henceforth referred to as *the Act*). The process was initiated as a means of updating the Engineer's Report to reflect the current alignment of the municipal drain and address changes that have been made to the previously adopted system. Over the years, the drain had been partially filled in with a new channel outlet constructed; and the upper reaches of the drain were filled in and tile drained. This report is intended to provide an updated Engineer's Report outlining the existing conditions, addressing any improvements needed to ensure the system provides appropriate service levels per standard industry practice, and provide a means for the municipality to undertake future maintenance.

As part of the process, a landowner requested improvements be undertaken to the existing system by way of a partial enclosure. Details of the enclosure have been outlined in **Section 4.5**.

For more information on the previous report (July 1978), refer to **Section 2** of this report; Drain History.

2.0 DRAIN HISTORY

In consultation with the Township's Drainage Superintendent, we understand that the most current Engineer's Report was prepared in July 1978 by Lascelles, Seguin, Tremblay Consulting Engineers. The Engineer's Report prepared in 1978 includes the Demers-Cayer, Adam and Quirouette Municipal Drains, all of which were petitioned under Section 4 of the Drainage Act (1975).

This report has been prepared only to address the Adam Municipal Drain. For maintenance specifications and associated assessments for the Demers-Cayer or Quirouette Drains, refer to the 1978 Engineer's Report (Lascelles, Seguin, Tremblay Consulting Engineers) (or the most recent associated report, as applicable.)

3.0 DRAINAGE ACT, 1990, PROCESS

3.1 TO DATE

Shade Group Inc. (SGI) was appointed as the engineer for the Adam Municipal Drain project under by-law 23-2022 on February 28, 2022, with the request to prepare a Section 78 Engineer's Report to amend the 1978 Engineer's Report to reflect the current conditions.

An on-site meeting was held on April 28, 2022 with all of the landowners within the watershed for the Adam Municipal Drain. The meeting was held roadside at Aurele Road.

A field survey was carried out on April 28, 2022 following the on-site meeting to collect topographic information pertaining to the existing conditions. This topographic information was used to prepare the updated engineering drawings.

Consultation with applicable parties was carried out throughout the project, including consultation and input from:

- Landowners;
- Tile drain contractors;
- The drainage superintendent.

3.2 NEXT STEPS

Following the submission of this report, the report will be brought to a Meeting to Consider (Section 42).

The clerk of the municipality shall send a copy of the report and a notice stating the date on which the report was filed, the name or designation of the drainage works; and the date of the council meeting at which the report will be considered to the prescribed people (Section 41).

The Meeting to Consider is then held by council, and council may then adopt the report by provisional by-law by giving two readings (Section 45(1)).

Following the Meeting to Consider, and assuming a provisional by-law is adopted, a notice is sent including a copy of the provisional by-law (exclusive of the Engineer's Report), and a letter advising of the time and place for the first sitting of the Court of Revision.

Following the completion of addressing all appeals; or the time for appealing has expired, the council may pass the provisional by-law, thereby authorizing construction (or maintenance) of the drainage works. Work may then be commenced as early as ten days after the by-law is passed if no notice of intention to make an application to quash the by-law has been filed with the clerk of the council (Section 58(1)).

3.3 LIMITATIONS

The process overview provided in Section 3.2 is provided as a general summary of the next steps to completion. Should the process described herein conflict with the specifications of the Drainage Act, the Drainage Act shall govern. The process described is provided as a summary only, the Township clerk shall be responsible for ensuring that the applicable administrative works are completed in accordance with the specifications of the Drainage Act.

4.0 DESCRIPTION OF THE WATERSHED + ALIGNMENT OF DRAIN

4.1 1978 ALIGNMENT & WATERSHED

The Adam Municipal Drain as adopted under the 1978 Engineer's Report offered drainage outlet for the east half of Lot 13, Concession 8 through the west half of Lot 14, Concession 8, former geographic Township of Cambridge, now in the Nation Municipality.

The upstream limits of the drain were at the eastern lot line of the east half of Lot 13, Concession 8, from which the drain flowed in a westerly direction for approximately 2,380 ft (~725 m) before continuing in a northerly direction, ultimately outletting to the Quirouette Municipal Drain at approximately 14+07 (Quirouette Municipal Drain Stationing, 1978). The total length of the 1978 Adam Municipal Drain was approximately 4,050 ft (1,234 m).

The total watershed area was approximately 132.2 acres (1978 Engineer's Report).

4.2 CHANGES MADE TO THE 1978 ALIGNMENT

Based on available historical aerial imagery, it appears that the upper reaches of the Adam Municipal Drain (east half Lot 13, Stations 36+23 to Station 40+50, 1978) was enclosed in the early 2000s. Per discussions with the landowners, we understand that the lands were tile drained, with a tile drain installed within the open ditch. The open ditch was then filled in. Historical aerial imagery suggests that the works were done prior to 2013. Information on the Ontario Ministry of Agriculture, Food and Rural Affairs AgMaps system has this tile drainage system labelled as 2012. No information was available at the time of this report as to the specifics of what was installed nor as to the limits of the tile drained lands. Instead, data from the AgMaps system has been used to guide design and review of the system.

Also based on historical aerial imagery, it appears that the lower limits of the drain were filled in sometime between November 2015 and September 2016 (based on Google Earth aerial imagery and as confirmed by AgMaps which has the tile drainage labelled as 2015). The lower portion of the 1978 Adam Municipal Drain was filled in, with a new outlet excavated from Station 25+30 of the Adam Municipal Drain, continuing in a northerly direction and outletting to the Quirouette Municipal Drain at approximately Station 22+62 (Quirouette Municipal Drain Stationing, 1978).

4.3 ABANDONMENT – UPPER REACHES

Given the changes made to the upper reaches of the drain as outlined in Section 4.2, and through discussions with the landowner of the subject property (ID #3 – **Appendix B**), it has been proposed that the upper reaches of the Adam Municipal Drain are to be abandoned. Specifically, Station 36+26 through 40+50 (1978 Stations) are to be abandoned. The existing open ditch will terminate at approximately Station 36+23 (now 0+835) at the property line between the east half of Lot 13 and the west ¼ of Lot 13, Concession 8, however an approximately 1 m section (Station 0+835 – 0+836) of enclosed drain will continue to have legal status under the Drainage Act. **This 1m extension will not be maintained by the municipality.** It will remain the responsibility of the

landowner to maintain all enclosed works on the east half of Lot 13, Concession 8. The 1 m section (Station 0+835 through 0+836) is intended only to ensure that it is clear that the system has been designed with the intention of this private system being permitted legal, direct connection to the Adam Municipal Drain.

4.4 2022 ALIGNMENT & WATERSHED

As described in Section 4.2, changes have been made to the alignment of the drain since the system was originally adopted in 1978. The new adopted alignment under this report is to be as follows:

The upper limits of the drain is considered to be Station 0+836, approximately 1 m east of the property line between the east half of Lot 13 and the west ¼ of Lot 13, Concession 8. Station 0+835 to Station 0+836 is to be an enclosed system – maintained solely by the owner of the property on which the tile system is located.

Station 0+835 through station 0+567 is to be converted from the current open channel to an enclosed system. The proposed enclosure is to be comprised of a 12" diameter dual wall, perforated pipe, with a Higgenbottom structure located at the current termination point of the upstream tile drain (Station 0+835-0+836).

The enclosure will terminate at Station 0+567, 3m upstream of the 90 degree turn at Station 0+570, where the drain turns in a northerly direction. The open channel then continues in a northerly direction on the property line between Part of the west half of the east half of Lot 14 and the east ¼ of Lot 14, Concession 8 for approximately 570 m, outletting to the Quirouette Drain at approximately Station 22+62 (Quirouette Drain Stations, 1978).

The total maintained portion of the drain is approximately 836 m, serving a watershed of approximately 62 acres.

4.5 2022 ENCLOSURE

As noted in Section 4.4, Station 0+567 through Station 0+835 is proposed to be enclosed at the request of the subject landowner (Landowner ID #2). The proposed enclosure is to consist of a 12" diameter dual wall, smoothwall, perforated pipe. A Higgenbottom structure is to be connected at the top end of the new enclosure, with a tee connection between the existing (assumed) 4" tile drain from Landowner ID #3 – offering a direct connection to the new 12" diameter pipe. For more details on the enclosure, refer to the Plan and Profile drawings as included in Appendix B. Details associated with the design considerations for the enclosure have been included in Section 7.5 of this report.

5.0 PLAN

Enclosed in Appendix B is a Plan View which includes:

- The limits of the catchment area;
- The 2022 alignment which is to be adopted by way of this report;
- Approximate property lines as supplied by the United Counties of Prescott and Russel from their Geographic Information System (GIS) "A La Carte".
- Numbered labels for each property which can be referenced back to the assessment schedule enclosed in Appendix C.

6.0 PROFILE

A topographic survey was completed in April 2022 using a Spectra Precision SP60 GNSS Receiver. This information was compiled in AutoCAD – Civil 3D – and used to prepare a digital terrain model of the existing drainage cross-section and profile. This information was then used to develop an updated profile of the alignment, which is to be used for future maintenance works.

It is intended that the accompanying plan, profile and specifications form a part of this report, and that altogether they govern the performance of this work.

The proposed design profile has been enclosed in Appendix B.

7.0 DESIGN CONSIDERATIONS

7.1 WATERSHED

Given the changes in the alignment of the ditch, an update to the watershed was warranted to reflect the current site conditions.

SGL conducted a visual review of the watershed in April 2022. The updated watershed boundary has been shown on the Watershed Map Plan View as enclosed in Appendix B.

The entirety of the watershed remains as active agricultural lands. The terrain is very flat, with limited elevation changes throughout. Tile drain serves as a key component to the successful drainage of the lands. Tile drainage maps were not available for the entirety of the watershed, although we understand that the majority of the watershed is tile drained. Consultation was undertaken with a local tile drain contractor who is familiar with the area. The tile drain contractor was able to provide guidance on the approximate watershed boundary based on the existing subsurface tile drainage systems. The final watershed boundary has been included in Appendix B.

7.2 FARM CROSSING

At the time of this report, only a single farm crossing was present within the system – located on Property ID #2, at approximately Station 0+695. Given the proposed enclosure, this culvert is to be removed and abandoned. No farm crossings are proposed under this new report.

7.3 1978 CROSS-SECTION

The cross-section as adopted from the 1978 Engineer's Report was as follows:

Bottom width: 2 feet wide
Side Slopes: 1.5 horizontal to 1 vertical

7.4 2022 CROSS-SECTION – STATION 0+000 – 0+567

As the primary purpose of this report was to address the realignment of the system; and as no concerns with respect to capacity, on-going erosion, etc. were brought forth at the on-site meeting, no changes are proposed to the cross-section of the drain, as history would suggest the system as it has operated for the past ~44 years appears to be adequate to meet the needs of the landowners who benefit from it.

As such, the continued cross-section for future maintenance of the open channel shall be:

Bottom width: 2 feet wide
Side Slopes: 1.5 horizontal to 1 vertical

7.5 2022 ENCLOSURE – STATION 0+567 – 0+835

At the request of the subject landowner, an enclosure has been designed for Station 0+567 through 0+835 of the Adam Municipal Drain. The enclosure was designed in consultation with a local, experienced Tile Drain Contractor, who is familiar with the lands in questions. Based on a total contributing area of approximately 41 acres; a pipe slope of 0.08%, a Manning's Roughness Coefficient of 0.013 (for smoothwall pipes); and a ½ inch per day design criteria, a 12 inch diameter pipe would have capacity for approximately 58 acres. Given that is greater than the 41 acres needed, this pipe is expected to perform to the service levels associated with ½ inch per day. The design was reviewed in reference to a 10 inch pipe as well and found to have inadequate conveyance capacity.

7.6 1978 PROFILE

Per the details as outlined on the 1978 Plan & Profile drawing for the Adam Municipal Drain, the 1978 design was completed based on a slope of 0.08%.

7.7 2022 PROFILE

The updated alignment for the Adam Municipal Drain is anticipated to have a slope of approximately 0.08%. This slope applies both to the open channel section and the enclosure.

To achieve this slope, a cleanout will be required of the downstream receiving system. A downstream cleanout is required for approximately 400m of the Quirouette Municipal Drain. Maintenance of the Quirouette Municipal Drain is to be performed as per the specifications of its respective Engineer's Report (1978) and assessed in accordance with the assessment schedule enclosed therein.

8.0 ASSESSMENTS

As the realignment of the Adam Municipal Drain resulted in changes to the watershed, an updated assessment schedule was established to fairly assess costs for future maintenance to those encompassed within the watershed.

As per Section 21 of the Act, *"The engineer in the report shall assess for benefit, outlet liability and injuring liability, and shall insert in an assessment schedule, in separate columns, the sums assessed for each opposite each parcel of land and road liable therefor. R.S.O. 1990, c. D.17, s. 21."* As this is an existing drain and the scope of works does not include any works that would be considered injuring to lands or roads, injuring liability is not applicable.

As the land use of today is assumed to have been the same as that of the original 1978 Engineer's Report, the overall benefit to outlet ratio of the drain has been generally considered proportional today to that of 1978. The benefit assessments have been apportioned amongst the lands within the watershed amongst the lands who meet the definition of such an assessment. Under the Act, lands eligible for benefits assessment are defined as those *"lands, roads, buildings, utilities, or other structures that are increased in value or are more easily maintained as a result of the construction, improvement, maintenance or repair of a drainage works may be assessed for benefit. R.S.O. 1990, c. D.17, s. 22."* In this case, all three properties (the entire watershed) are applicable for benefit assessment.

All lands within the watershed are assessed outlet liability, which is defined as *"lands and roads that use a drainage works as an outlet, or for which, when the drainage works is constructed or improved, an improved outlet is provided either directly or indirectly through the medium of any other drainage works or of a swale, ravine, creek or watercourse, may be assessed for outlet liability. R.S.O. 1990, c. D.17, s. 23 (1)."*

The method for determining the appropriate apportionment of benefit and outlet liability assessment is the responsibility of the appointed Drainage Engineer. The Drainage Engineer shall use their best judgement to determine an apportionment that is considered fair to all those assessed.

For the purposes of assessing outlet benefit across the lands within the watershed, the Drainage Engineer has used the Factored Areas Method. Under this method, the areas of land within the watershed are assigned a number of factors based on land use, proximity to the drain (distance factor), and general location in the watershed (sub-section factor). The summation of these

factors provides a factored area that allows lands within the watershed to be compared on a fair basis. This method takes into account different volumes and rates of flow of water coming off the land, based on the above noted factors. Each of these parameters (i.e. land use, distance of flow and length of drain) can be connected back to estimated volumes and peak flow rates off the land for each property.

Special benefit has been included for the purposes of apportioning the costs associated with the engineering under this report and for the proposed enclosure. Special benefits may be used where, for example, the relocation or realignment of a drain is to the benefit of one specific property. In this case, a special benefit has been used to assess the engineering costs in what this engineer considers to be a fair apportionment amongst those within the watershed, in consideration of both the realignment, the enclosure, and the abandonment.

8.1 LAND USE FACTORS

As all lands within the watershed have the same use, each property was assigned a land use factor of 1.0.

8.2 DISTANCE FACTORS

As the offsetting distance from the drain was generally the same for each property, each property was assigned a distance factor of 1.0.

8.3 SUB-SECTION FACTORS

Each property was assigned a sub-section factor based on their location on the drain.

Property ID #3 benefits from the entire length of the drain and requires the drain as an outlet for their property and as such, was assigned a sub-section factor of 1.0;

Properties #2 and #1 make use of less of the drain and were assigned corresponding factors based on their relative use of the drain.

The summation of these factors was then used to determine an equivalent area, which was used to determine the apportionment of the associated outlet liability.

9.0 2022 ENGINEERING COSTS

The cost associated with the preparation of this report are estimated to be \$18,500 + HST. This estimate does not factor in any appeals through the Court of Revisions, Tribunal or the Referee, but does include for attendance at the first mandated Court of Revisions meeting. Should there be appeals, the total cost will be amended prior to the final adoption of this report.

These engineering costs are to be assessed in accordance with the special benefit assessments as outlined in the Assessment Schedule as enclosed in **Appendix C**. The Assessment Schedule has been prepared based on the above noted costs. Actual final billing may vary.

10.0 2022 CONSTRUCTION COSTS

The scope of work associated with this project are generally consistent with maintenance works for the open channel and the enclosure of a portion of the drain. For the purposes of fairly assessing costs, the works have been split into two assessment schedules.

Schedule 'A' – which includes the aforementioned engineering costs associated with the preparation of this report, also includes the anticipated construction / maintenance costs associated with the open channel from Station 0+000 – 0+567.

Our estimate has been prepared based on the following works:

- Bottom cleanout ~567m open channel per attached plans;
- Install rip-rap at discharge point to the Quirouette Municipal Drain;
- Install rip-rap at 90 degree bend (~Station 0+570 per attached plans);
- Install temporary erosion and sediment control measures during construction to the satisfaction of the applicable approval agencies.

The estimated construction cost associated with the proposed open channel works is estimated at \$7,500 (exclusive of HST). Note that this is an estimate only and actual construction costs may vary. As per Section 59 of the Drainage Act, should the received construction maintenance bids exceed 133% of the estimated construction costs (in this case – that would suggest an upset limit of \$9,975), council shall call a meeting in accordance with Section 41, 42 and 43 and proceed according to the specifications of *the Act*.

Maintenance works required on the Quirouette Drain *have not* been included in the above noted construction costs – as it has been assumed those works will be performed in accordance with the specifications and details as outlined in the associated Engineer's Report (under separate cover).

Schedule 'B' has been prepared with respect to the proposed enclosure. Works are to be assessed in accordance with the distributions as shown in Schedule 'B'. The apportionment of costs has been prepared in consideration of what anticipated maintenance costs would have been on an open channel. These maintenance costs have been used as the baseline, with costs beyond that assessed to the landowner requesting the enclosure.

Our estimate has been prepared based on the following works:

- Bottom cleanout ~270m as required to set pipe at correct elevation;
- Pipe installation;
- Backfill;
- Install temporary erosion and sediment control measures during construction to the satisfaction of the applicable approval agencies.

The estimated construction cost associated with the proposed enclosure works is estimated at \$38,000 (exclusive of HST). Note that this is an estimate only and actual construction costs may vary. As per Section 59 of the Drainage Act, should the received construction maintenance bids exceed 133% of the estimated construction costs (in this case – that would suggest an upset limit of \$50,540), council shall call a meeting in accordance with Section 41, 42 and 43 and proceed according to the specifications of *the Act*.

Per discussions with the Township's Drainage Superintendent, the Township will administer and oversee the proposed works as required. Per discussions with the Township's Drainage Superintendent, it is understood that the Township will also coordinate all necessary permitting as required to conduct the above noted works.

Construction specifications have been included in Appendix D for the above noted works.

11.0 FUTURE MAINTENANCE

Future maintenance works of the Adam Municipal Drain are to be performed in accordance with the plans and specifications detailed herein.

So as to provide for a fair apportionment of future maintenance costs, different assessment schedules have been prepared for the open channel versus the enclosure. Specifically, the following assessment schedules are to be considered applicable for future maintenance:

- Future maintenance of open channel (0+000 – 0+567) – As per Schedule 'A'. Special benefit is **not** to be used.
- Future maintenance / upkeep of enclosure (0+567 – 0+835) – As Per Schedule 'C'
- Future replacement of enclosure (0+567 – 0+835) – As Per Schedule 'D'

The costs associated with these works is to be assessed against the lands in the apportionments as outlined in the assessment schedules enclosed in **Appendix C**.

The alignment shall be maintained in accordance with that which is outlined on the Watershed Map Plan View as enclosed in **Appendix B**, while the profile shall be maintained in accordance with the profile enclosed in **Appendix B**.

12.0 GRANTS

Properties that are registered with the Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) for the Farm Property Class Tax Rate Program may be eligible for a 1/3 grant from the Province. This anticipated grant has been reflected on Schedule 'A', however the Province does reserve the right to cancel this program at any time, and as such, this grant is *not guaranteed*.

Furthermore, the current program limits grant eligibility on enclosures. Per current Agricultural Drainage Infrastructure Program: Administrative Policies (ADIP Policies):

- a. *The cost of enclosing or replacing an existing open ditch municipal drain with a buried pipe is not eligible for grant if, using normal design standards, more pipe flow capacity is required than can be provided by a single 300 millimetre (mm) diameter corrugated plastic pipe (or equivalent capacity). An exception may be made if evidence is provided to the satisfaction of the Director that a drain enclosure is required to address bank slumping or erosion problems on the drain, and the Director's written approval is provided in advance.*
- b. *Where an existing open ditch municipal drain can be enclosed or replaced with a single 300 mm diameter corrugated plastic pipe (or equivalent capacity), grant will be provided under the following conditions:*
 - i. *The required pipe capacity is calculated using no less than a 12 mm (0.5 inch) drainage design coefficient.*
 - ii. *On a single property, the total cost to enclose/replace an open ditch is no more than \$15,000 per drain. If the cost to enclose the drain across a property is greater than \$15,000, grant will be paid on the first \$15,000 only. A drain is considered to be the main channel and any branches that outlet into the main channel on that property.*

Source: http://omafra.gov.on.ca/english/landuse/facts/adip_admin.htm, accessed August 16, 2022

As such, the proposed enclosure is anticipated to be limited in grant eligibility as the total anticipated construction estimate exceeds \$15,000.

13.0 CLOSING

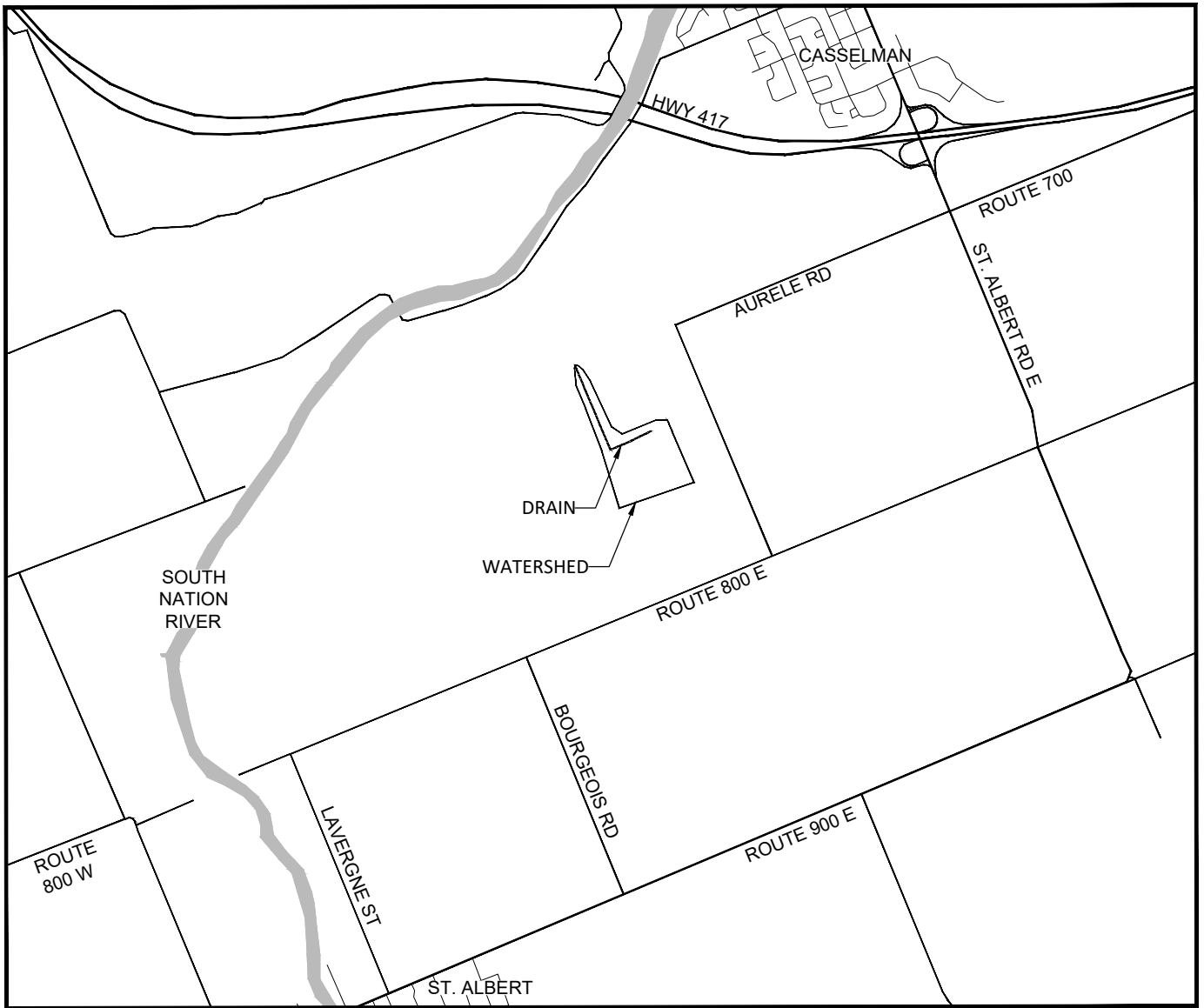
This report is respectfully submitted to the Council of the Nation Municipality this August xx 2022.

Should you have any questions or concerns, please do not hesitate to contact the undersigned.

Monica Shade, P. Eng.
Drainage Engineer
Shade Group Inc.

DRAFT

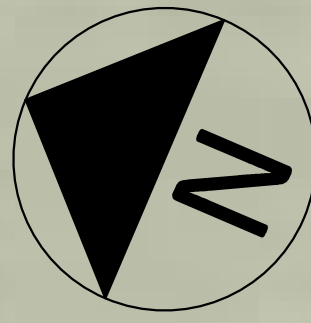
APPENDIX A
LOCATION PLAN



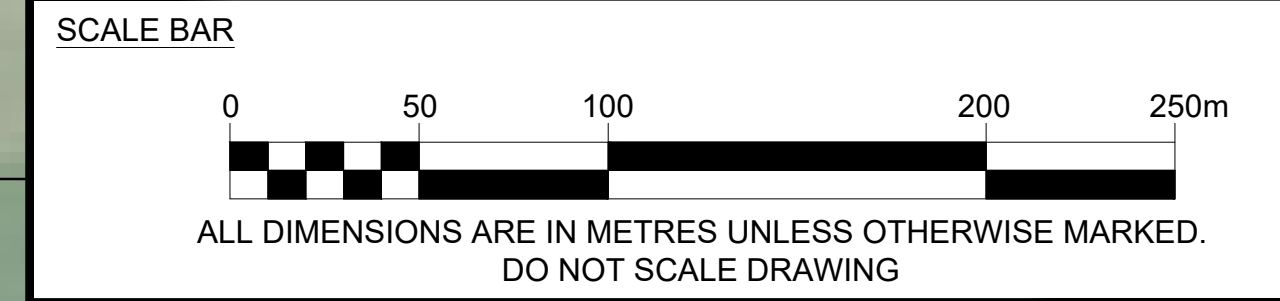
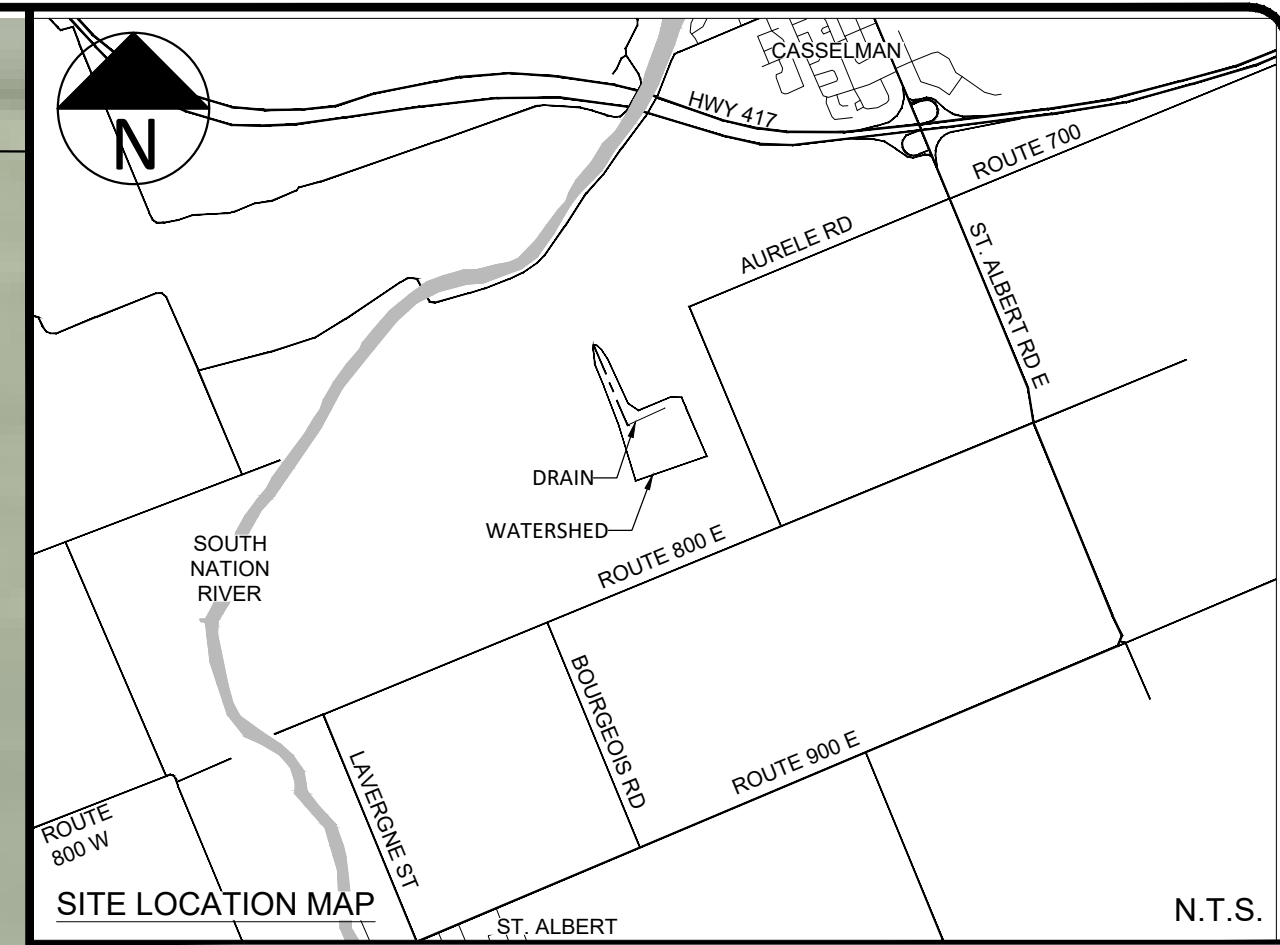
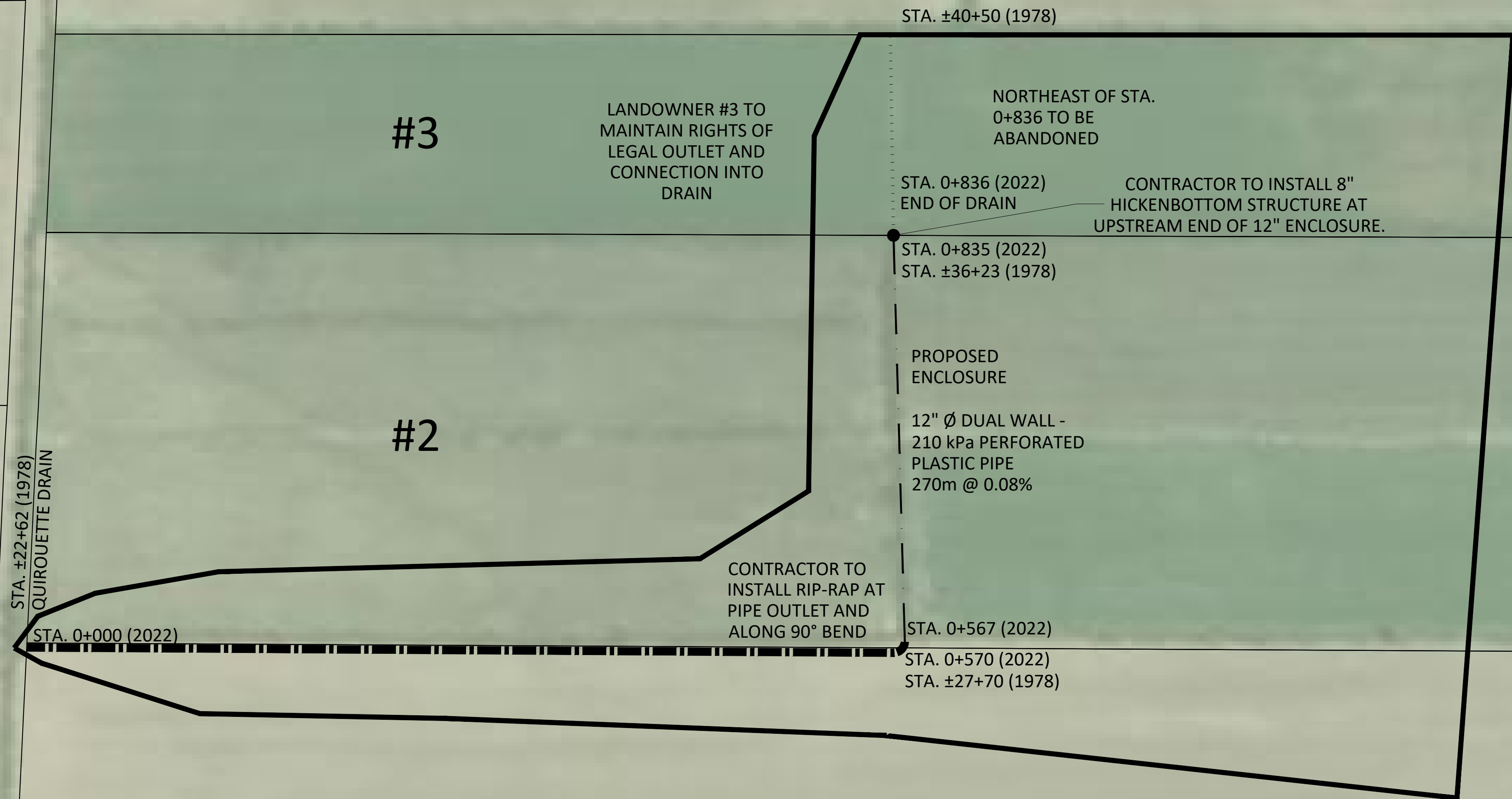
LOCATION PLAN
N.T.S.

DRAFT

APPENDIX B
DRAINAGE PLANS



ADAM MUNICIPAL DRAIN



PAGE SIZE: 24" x 36" SCALE: 1:2000

SHADE GROUP INC.
P.O. BOX 1716
ALMONTE, ON
K0A 1A0



LEGEND

- 2022 PROPERTY LINES (GIS DATA)
- ADAM MUNICIPAL DRAIN ALIGNMENT
- ADAM MUNICIPAL DRAIN WATERSHED BOUNDARY
- ENCLOSED SECTION OF THE ADAM MUNICIPAL DRAIN (NEW)
- FORMER ADAM MUNICIPAL DRAIN - TO BE ABANDONED
- 0+000 STATIONS (m)
- 27+70 APPROX. PREVIOUS STATIONS (FT) PER 1978 ENGINEER'S REPORT
- #1 PROPERTY ID REFERENCE - REFER TO ASSESSMENT SCHEDULES - SCHEDULE 'A' - 'D'

NOTES

1. ALL STATIONS LABELED ARE IN FEET AND ARE IN ACCORDANCE WITH THE PREVIOUS ADOPTED 1979 ENGINEER'S REPORT. THIS MAP IS FOR INFORMATION PURPOSES ONLY AND IMPLIES NO GUARANTEE OF ACCURACY. DO NOT SCALE DRAWING.
2. STATIONS HAVE BEEN PROVIDED FOR REFERENCE TO 1979 ENGINEER'S REPORT. ALL FUTURE MAINTENANCE AS IT RELATES TO MAINTENANCE OF THE CHANNEL SHALL BE IN ACCORDANCE WITH THE ENCLOSED PROFILE.
3. MAINTENANCE WORKS SHOULD BE COMPLETED IN ACCORDANCE WITH THE SPECIFICATIONS FOUND WITHIN THE 2022 ENGINEER'S REPORT AS PREPARED BY SHADE GROUP INC.
4. ALL PROPERTY LINES ARE AS SUPPLIED BY THE UNITED COUNTIES OF PRESCOTT AND RUSSELL, AS ACQUIRED FROM THEIR GEOGRAPHIC INFORMATION SYSTEM (GIS) MAY 2022.
5. THIS MAP AND THE ASSOCIATED REPORT IS IN REFERENCE TO THE ADAM MUNICIPAL DRAIN ONLY; ALL WORKS ASSOCIATED WITH THE DOWNSTREAM AND ADJACENT DRAINS AS ADOPTED UNDER THE 1979 REPORT SHALL REMAIN.

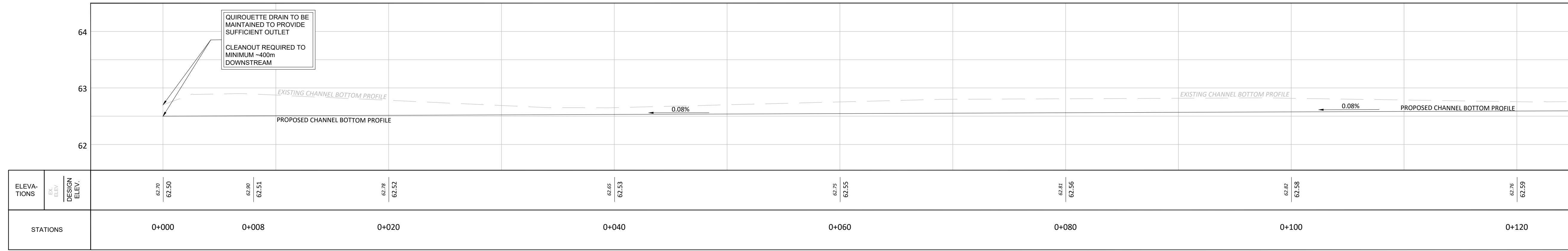
REV. #	REVISION DESCRIPTION	DATE

STAMP

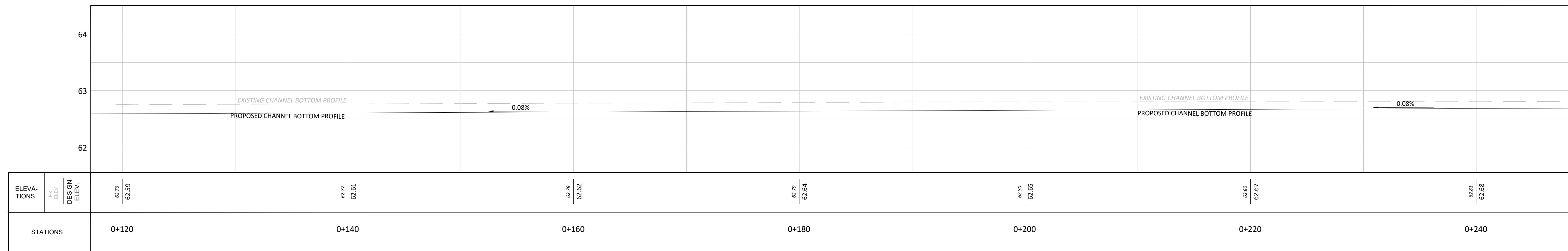
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DRAWING TITLE	WATERSHED MAP PLAN VIEW
DRAWING NO.	1 OF 3

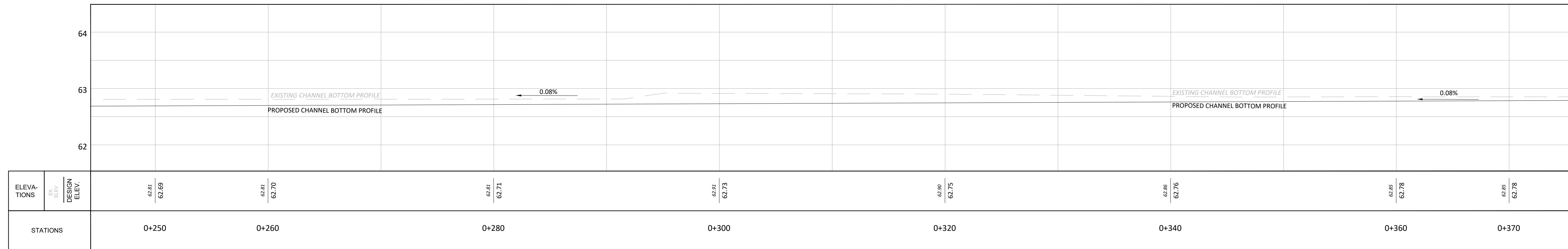
ADAM MUNICIPAL DRAIN
STA. 0+000 - 0+120



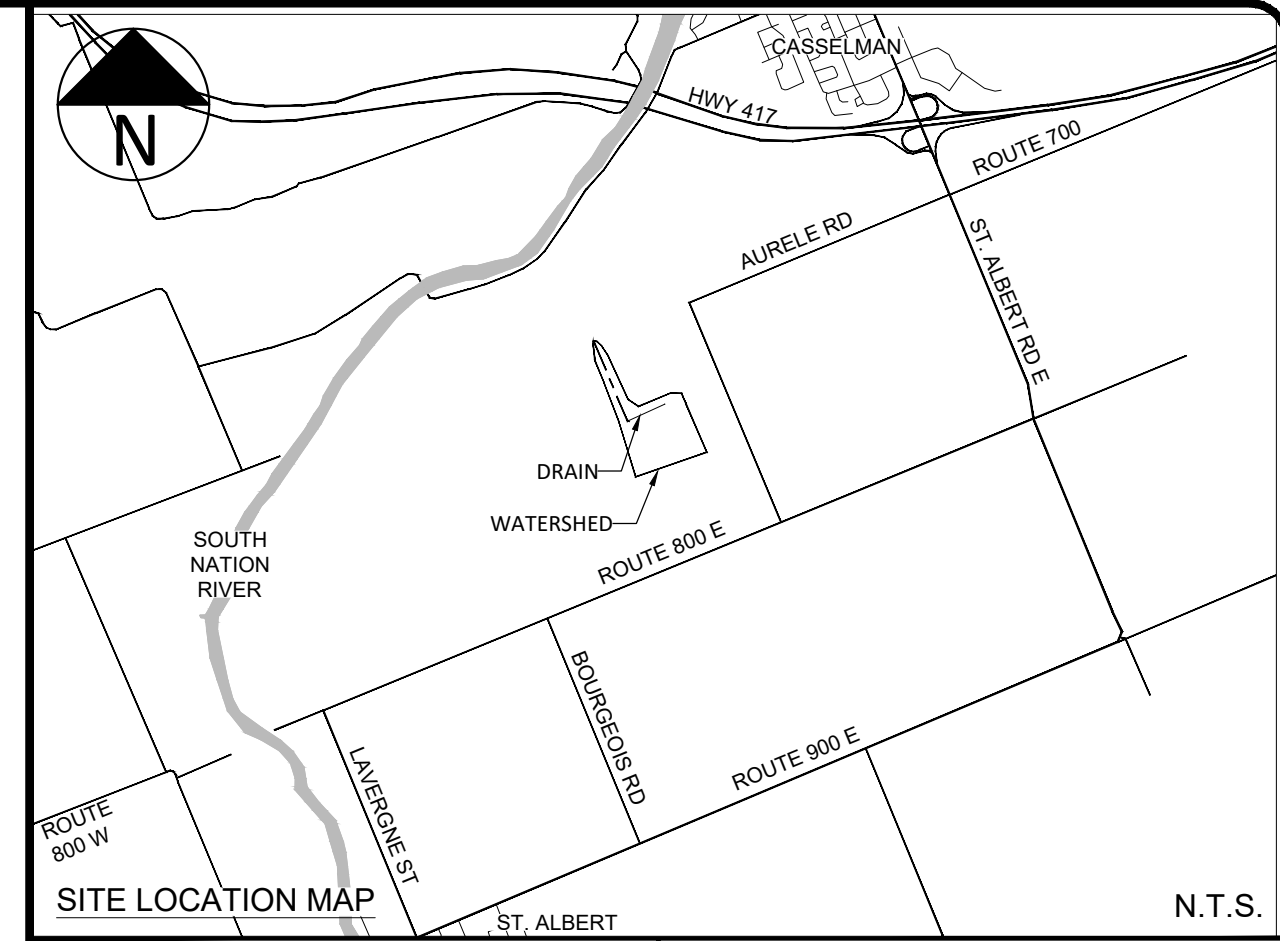
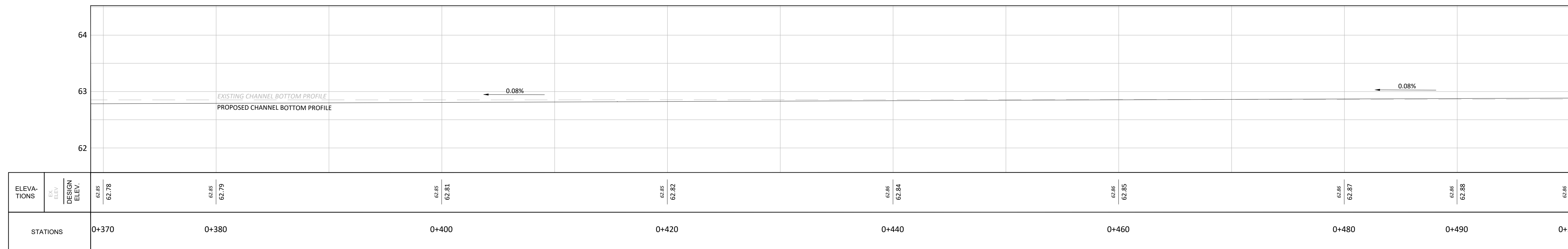
ADAM MUNICIPAL DRAIN
STA. 0+120 - 0+250



ADAM MUNICIPAL DRAIN
STA. 0+250 - 0+370



ADAM MUNICIPAL DRAIN
STA. 0+370 - 0+500



SITE LOCATION MAP N.T.S.
PAGE SIZE 24" x 36" SCALE H 1:200 V 1:40

SHADE GROUP INC.
P.O. BOX 1716
ALMONTE, ON
K0A 1A0

DRAIN CROSS-SECTION

CROSS-SECTION TO MATCH 1978 ENGINEER'S REPORT
SIDE SLOPES 1.5 HORIZONTAL TO 1 VERTICAL
BOTTOM WIDTH 0.61m (2 FT)

GENERAL NOTES

- ALL TOPOGRAPHY, GROUND ELEVATIONS AND SURVEY DATA ARE SHOWN FOR INFORMATION PURPOSES ONLY AND IMPLY NO GUARANTEE OF ACCURACY. ALL DIMENSIONS AND ELEVATIONS TO BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. ALL ELEVATIONS SHOWN ARE GEODETIC.
- THIS IS NOT A LEGAL SURVEY. PROPERTY LINES SHOWN ARE PER INFORMATION SUPPLIED FROM THE STORMWATER, DUNDAS AND GLENGARRY GIS SYSTEM AND IMPLY NO GUARANTEE OF ACCURACY FOR EXACT PROPERTY LINES.
- ALL DISTURBED AREAS ARE TO BE SEEDED AS SOON AS FEASIBLE.
- WORKS SHALL BE COMPLETED IN THE LOW OR NO FLOW CONDITIONS.
- ANY CHANGES MADE TO THIS PLAN ARE TO BE VERIFIED AND APPROVED BY SHADE GROUP INC.

EROSION AND SEDIMENT CONTROL

- THE CONTRACTOR SHALL IMPLEMENT BEST MANAGEMENT PRACTICES TO PROVIDE FOR PROTECTION OF THE SUBJECT AND DOWNSTREAM RECEIVING WATERBODIES AND WATERCOURSES.
- THE CONTRACTOR SHALL IMPLEMENT TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES DURING CONSTRUCTION AND SHALL ENSURE THESE MEASURES ARE APPROPRIATELY MAINTAINED THROUGHOUT THE DURATION OF THE PROJECT.
- THE CONTRACTOR SHALL FOLLOW INDUSTRY STANDARD FOR ALL MAINTENANCE OF EROSION AND SEDIMENT CONTROL MEASURES, AS APPLICABLE.

REV. #	REVISION DESCRIPTION	DATE

STAMP

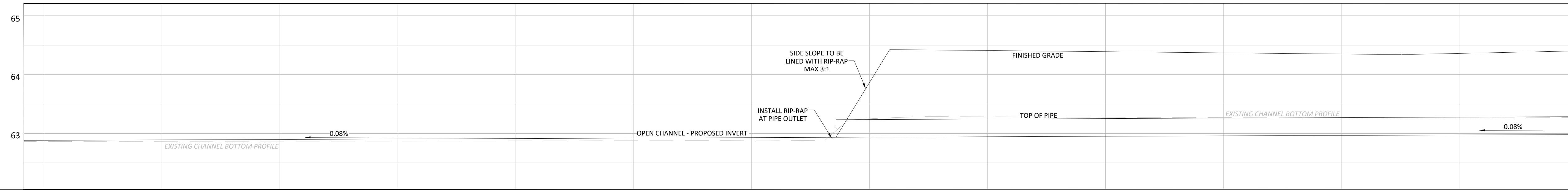
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PROJECT TITLE **ADAM MUNICIPAL DRAIN
THE NATION MUNICIPALITY**

DRAWING TITLE **PROFILE VIEW
STA. 0+000 - 0+500**

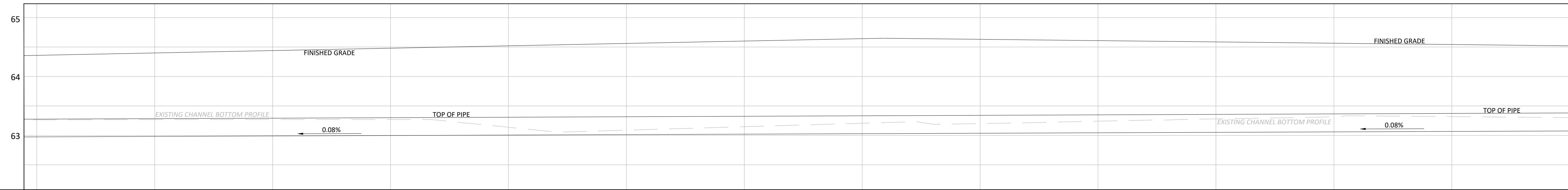
DRAWING NO. **2 OF 3**

ADAM MUNICIPAL DRAIN
STA. 0+500 - 0+620



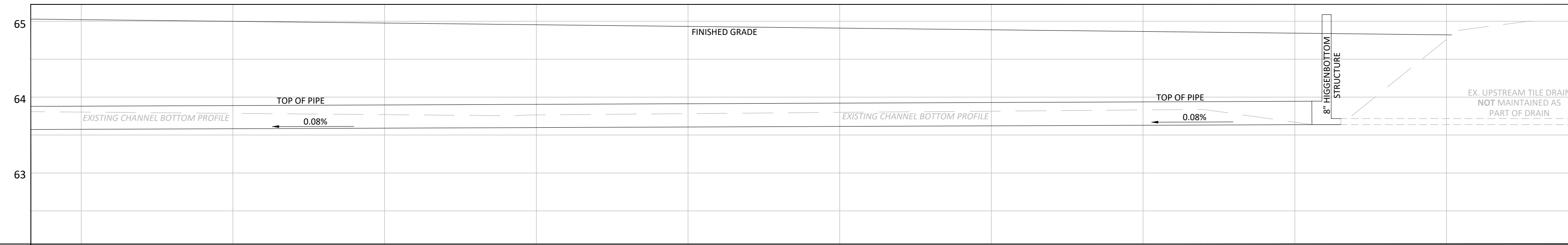
ELEVATIONS	AS BUILT ELEV.	DESIGN ELEV.	STATIONS
	62.86	62.88	0+500
	62.87	62.90	0+520
	62.87	62.91	0+540
	62.87	62.93	0+560
	62.85	62.93 (PIPE INV)	0+567
	62.84	62.96 (PIPE INV)	0+580
	62.87	62.96 (PIPE INV)	0+600
	62.86	62.98 (PIPE INV)	0+620

ADAM MUNICIPAL DRAIN
STA. 0+620 - 0+750

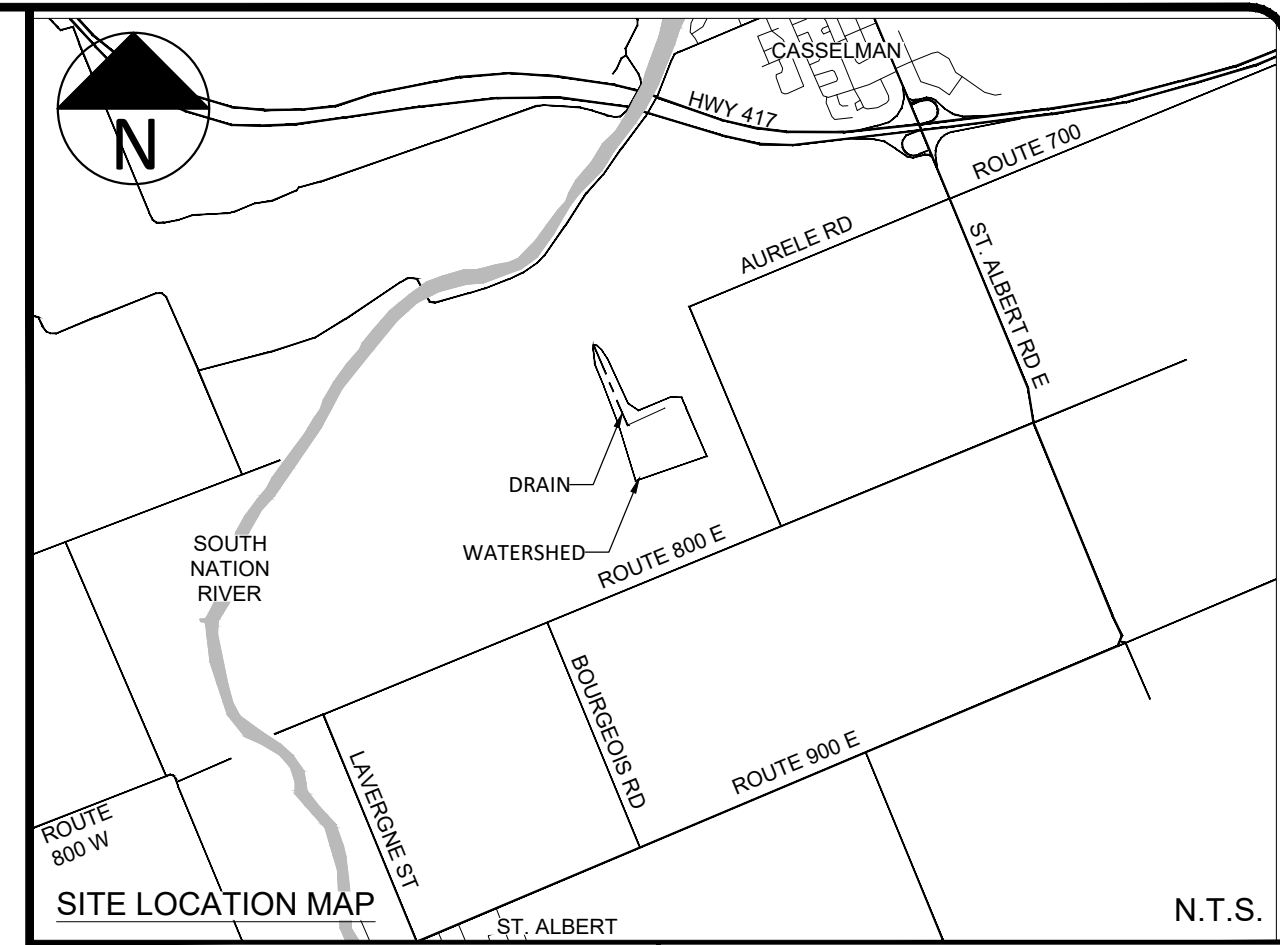


ELEVATIONS	AS BUILT ELEV.	DESIGN ELEV.	STATIONS
	62.98	62.98 (PIPE INV)	0+620
	62.97	62.97 (PIPE INV)	0+640
	62.94	63.01 (PIPE INV)	0+660
	62.95	63.02 (PIPE INV)	0+680
	62.97	63.04 (PIPE INV)	0+700
	62.98	63.05 (PIPE INV)	0+720
	62.92	62.97 (PIPE INV)	0+740
	62.92	63.07	0+750

ADAM MUNICIPAL DRAIN
STA. 0+750 - 0+840



ELEVATIONS	AS BUILT ELEV.	DESIGN ELEV.	STATIONS
	62.90	63.07 (PIPE INV)	0+750
	62.92	63.08 (PIPE INV)	0+760
	62.86	63.10 (PIPE INV)	0+780
	62.90	63.11 (PIPE INV)	0+800
	62.92	63.13 (PIPE INV)	0+820
	62.87	63.14 (PIPE INV)	0+830
			0+836



PAGE SIZE 24" x 36" SCALE H 1:200 V 1:40 N.T.S.

SHADE GROUP INC.
P.O. BOX 1716
ALMONTE, ON
K0A 1A0

DRAIN CROSS-SECTION

CROSS-SECTION FOR OPEN CHANNEL TO MATCH 1978 ENGINEER'S REPORT
SIDE SLOPES 1.5 HORIZONTAL TO 1 VERTICAL
BOTTOM WIDTH 0.61m (2 FT)

ENCLOSURE
12" DIAMETER DUAL WALL PLASTIC PIPE - SMOOTHWALL INTERIOR
210 kPa - PERFORATED PIPE
BACKFILL WITH NATIVE MATERIAL

GENERAL NOTES

- ALL TOPOGRAPHY, GROUND ELEVATIONS AND SURVEY DATA ARE SHOWN FOR INFORMATION PURPOSES ONLY AND IMPLY NO GUARANTEE OF ACCURACY. ALL DIMENSIONS AND ELEVATIONS TO BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. ALL ELEVATIONS SHOWN ARE GEODETIC.
 - THIS IS NOT A LEGAL SURVEY. PROPERTY LINES SHOWN ARE PER INFORMATION SUPPLIED FROM THE STORMONT, DUNDAS AND GLENGARRY GIS SYSTEM AND IMPLY NO GUARANTEE OF ACCURACY FOR EXACT PROPERTY LINES.
 - ALL DISTURBED AREAS ARE TO BE SEEDDED AS SOON AS FEASIBLE.
 - WORKS SHALL BE COMPLETED IN THE LOW OR NO FLOW CONDITIONS.
 - ANY CHANGES MADE TO THIS PLAN ARE TO BE VERIFIED AND APPROVED BY SHADE GROUP INC.
- EROSION AND SEDIMENT CONTROL**
- THE CONTRACTOR SHALL IMPLEMENT BEST MANAGEMENT PRACTICES TO PROVIDE FOR PROTECTION OF THE SUBJECT AND DOWNSTREAM RECEIVING WATERBODIES AND WATERCOURSES.
 - THE CONTRACTOR SHALL IMPLEMENT TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES DURING CONSTRUCTION AND SHALL ENSURE THESE MEASURES ARE APPROPRIATELY MAINTAINED THROUGHOUT THE DURATION OF THE PROJECT.
 - THE CONTRACTOR SHALL FOLLOW INDUSTRY STANDARD FOR ALL MAINTENANCE OF EROSION AND SEDIMENT CONTROL MEASURES, AS APPLICABLE.

REV. #	REVISION DESCRIPTION	DATE

STAMP

DRAFT

PROJECT TITLE **ADAM MUNICIPAL DRAIN
THE NATION MUNICIPALITY**

DRAWING TITLE **PROFILE VIEW
STA. 0+500 - 0+836**

DRAWING NO. **3 OF 3**

DRAFT

APPENDIX C

ASSESSMENT SCHEDULES

Assessment Schedule - Updated 2022
 Schedule 'A'
 2022 Engineering + Maintenance (0+000 - 0+567)
 Use for Future Maintenance of Open Channel (0+000 - 0+567)

Property ID No.	Roll No.	Lot/Con	Area Drained (acres)	Outlet (\$)	Benefit (\$)	Special Benefit (\$)*	Est. Farm Credit (\$)	Net Assess. (\$)
1	0212001-008-03200	CON 8 PT LOT 13	44.9	\$ 592.62	\$ 1,125.00	\$ 8,500.00	\$ 3,405.87	\$ 6,811.75
2	0212001-008-03002	CON 8 PT LOTS 13;AND 14	51.3	\$ 1,354.41	\$ 1,350.00	\$ 8,500.00	\$ 3,734.80	\$ 7,469.61
3	0212001-008-03002	CON 8 W PT LOT 14	21.3	\$ 1,052.96	\$ 2,025.00	\$ 1,500.00	\$ 1,525.99	\$ 3,051.98
Sub-Total				\$ 3,000.00	\$ 4,500.00	\$ 18,500.00	\$ 8,666.67	\$ 17,333.33

*Do not use special benefit column for future maintenance



Assessment Schedule - Updated 2022
 Schedule 'B'
 Proposed Enclosure (0+567 - 0+835)
NOT TO BE USED FOR FUTURE WORKS

Property ID No.	Roll No.	Lot/Con	Area Drained (acres)	Outlet (\$)	Benefit (\$)	Special Benefit (\$)	Net Assess. (\$)
2	0212001-008-03002	CON 8 PT LOTS 13;AND 14	51.3	\$ 1,316.21	\$ 1,200.00	\$ 33,000.00	\$ 35,516.21
3	0212001-008-03002	CON 8 W PT LOT 14	21.3	\$ 683.79	\$ 1,800.00	\$ -	\$ 2,483.79
Sub-Total				\$ 2,000.00	\$ 3,000.00	\$ 33,000.00	\$ 38,000.00

Assessment Schedule - Updated 2022
Schedule 'C'

For Future Maintenance of Enclosure (0+567 - 0+835)

Property ID No.	Roll No.	Lot/Con	Area Drained (acres)	Outlet (\$)	Benefit (\$)	Net Assess. (\$)
2	0212001-008-03002	CON 8 PT LOTS 13;AND 14	51.3	\$ 394.86	\$ 360.00	\$ 754.86
3	0212001-008-03002	CON 8 W PT LOT 14	21.3	\$ 205.14	\$ 540.00	\$ 745.14
Sub-Total				\$ 600.00	\$ 900.00	\$ 1,500.00

Assessment Schedule - Updated 2022
 Schedule 'D'

For Future Replacement of Enclosure (0+567 - 0+835)

Property ID No.	Roll No.	Lot/Con	Area Drained (acres)	Outlet (\$)	Benefit (\$)	Special Benefit (\$)	Net Assess. (\$)
2	0212001-008-03002	CON 8 PT LOTS 13;AND 14	51.3	\$ 1,316.21	\$ 1,200.00	\$ 16,000.00	\$ 18,516.21
3	0212001-008-03002	CON 8 W PT LOT 14	21.3	\$ 683.79	\$ 1,800.00	\$ -	\$ 2,483.79
Sub-Total				\$ 2,000.00	\$ 3,000.00	\$ 16,000.00	\$ 21,000.00

DRAFT

APPENDIX D
CONSTRUCTION SPECIFICATIONS

The following construction specifications have been prepared in reference to the 1978 Engineer's Report for the Adam Municipal Drain, with updates as required to reflect today's standards and practices.

Excavation of Ditch

The bottom of the ditch shall be excavated to an even grade so that no water may lie stagnant therein.

The channel shall be excavated in conformance with the specifications outlined herein.

Design Criteria	Specification
Side Slopes	1.5 Horizontal to 1 Vertical
Grade	0.08%
Bottom Width	0.60 m (2 ft)

It is essential that the side slopes shall not be greater than that specified. The Contractor shall not be allowed to increase the bottom width without maintaining the specified side slopes.

Works shall be completed in low or no flow conditions. Works shall be completed as efficiently as possible; works should not be left partially started and unattended for long periods of time.

Works shall be completed in conformance with the permit specifications from the applicable approval agencies. For the purposes of this report, it has been assumed that the Township Drainage Superintendent will be overseeing the acquisition of permits; as the Township will also be looking after the tendering and contract administration of the works described herein.

Excavated material as removed from the channel is to be spread on the adjoining farmland. Material from Stations 0+000 to 0+570 is to be spread on the west side of the channel, while material from Station 0+570 – 0+836 is to be spread along the north side of the channel.

Material is to be taken back at least 10 feet from the edge of the finished ditch so as to leave a berm of 10 feet in width if the spreading is done in cultivated land. Excavated material shall be spread and leveled by means of a bulldozer or similar equipment so that the finished work presents a neat appearance and leaves the lands so that it can easily be worked by the farmer, and spread in such a manner that the average elevation at any particular location does not exceed the elevation of the adjoining lands by more than 6 inches.

Install Temporary Erosion and Sediment Control Measures

Temporary erosion and sediment control measures are anticipated to include (at a minimum) straw bale check dams installed within the drain alignment, to allow for temporary erosion and sediment control protection until such a time that grass or vegetation can be established on the banks and bottom of the channel. Additional temporary measures may also be required to the

satisfaction of the permitting agencies. It shall be the contractor's responsibility to maintain these measures after every rainfall event (>10mm) and as required throughout construction to ensure they are operating as per standard industry practice. On-going maintenance of the temporary erosion and sediment control measures is to be continued until such a time as sufficient vegetation has established to stabilize the banks and bottom of the system; to the satisfaction of the engineer or Drainage Superintendent.

Rip-rap Installation

Rip-rap shall be installed at the start of the channel where the alignment meets with the Quirouette Drain so as to provide for channel protection and bank stabilization against the inflow from the Adam Municipal Drain. Rip-rap is also to be installed at Station 0+570, where the drain makes a 90 degree turn; once again to allow for channel protection and bank stabilization. This rip-rap at Station 0+570 will also allow for channel protection against the discharge point from the enclosure.

Rip-rap shall be underlain with geotextile and shall be placed with machinery capable of controlling the drop of the rock, rather than dumped over the edge of the bank. Rip-rap shall be placed immediately following preparation of the banks. The minimum thickness of the riprap shall be 1.5 times the mean diameter. Rip-rap shall be installed along both the inner and outer bank, as well as along the bottom width.

Enclosure Installation

The contractor shall first excavate the bottom of the ditch to the appropriate elevation as per the enclosed Profile Drawings. Excavated material is to be spread beside the drain in fitting with the specifications as outlined in the "Excavation of the Ditch" specification provided on the previous page. Material is to be spread along the north side of the channel.

The contractor shall install the dual wall perforated pipe as per manufacturer specifications.

Following installation of the pipe, the ditch is to be backfilled with suitable backfill material. Backfill material shall take into consideration the intended land use; in that the area is expected to be farmed after completion. Backfill with significant large blocks of concrete or large stones should be avoided.

THE CORPORATION OF THE NATION MUNICIPALITY

BY-LAW NUMBER 110-2022

A BY-LAW TO APPOINT AN INTEGRITY COMMISSIONER FOR THE CORPORATION OF THE NATION MUNICIPALITY AND ENTER INTO A SERVICE AGREEMENT FOR THE SERVICES OF THE INTEGRITY COMMISSIONER.

WHEREAS section 223.3 of the *Municipal Act*, 2001, S.O. 2001, c. 25, as amended (the "*Municipal Act*"), authorizes a municipality to appoint an Integrity Commissioner who reports to Council and who is responsible for performing in an independent manner the functions assigned by the municipality with respect to any or all of the responsibilities set out in section 223.3 of the *Municipal Act*, including, but not limited to, the application of the Code of Conduct for Members of Council;

AND WHEREAS the Office of the Integrity Commissioner and a Complaint Protocol for the Code of Conduct for Members of Council was established on March 18th, 2019, through By-law 19-2019;

AND WHEREAS The Nation Municipality established a Code of Conduct for the members of the Municipal Council, number AD-2016-02.

AND WHEREAS Council deems it advisable to appoint an Integrity Commissioner and enter into a Service Agreement between the Corporation of The Nation Municipality and the Integrity Commissioner for the purposes of investigating formal complaints under the Code of Conduct for Members of Council.

NOW THEREFORE the Council of the Corporation of The Nation Municipality enacts as follows:

1. That Jean Jacques LaCombe of Société Professionnelle LaCombe, be hereby appointed as the Integrity Commissioner for the Corporation of The Nation Municipality pursuant to section 223.3 of the *Municipal Act*.
2. That the Service Agreement between the Corporation of The Nation Municipality and Société Professionnelle LaCombe, Lawyer, with respect to the position of Integrity Commissioner, be hereby adopted and forming part of this By-law as Schedule "A".
3. That the Mayor and the Clerk be authorized to execute the said Service Agreement annexed hereto as Schedule "A" on behalf of the Corporation of The Nation Municipality.
4. That this By-law shall come into force and take effect on the day of its passing.

READ FIRST, SECOND AND DULY PASSED UPON THIRD READING in open Council this 12th day of September 2022.

François St- Amour, Mayor

Josee Brizard, CAO Clerk

Seal

Schedule A to By-law

Made and effective this 26th day of September 2022.

Between:

The Corporation of The Nation Municipality

(hereinafter referred to as the "Corporation")

and

Société Professionnelle LaCombe

(hereinafter referred to as the "Integrity Commissioner")

Whereas section 223.3 of the *Municipal Act, 2001*, S.O. 2001, c. 25, as amended (the "*Municipal Act*") authorizes the Corporation to appoint an Integrity Commissioner who reports to Council and who is responsible for performing in an independent manner the functions assigned by the municipality with respect to any or all of the responsibilities set out in section 223.3 of the *Municipal Act*;

And whereas on March 18th 2019, Council approved By-law 19-2019 establishing the Office of the Integrity Commissioner for the Corporation;

And whereas the Corporation wishes to retain the services of an independent Integrity Commissioner for the Corporation;

And whereas the Corporation is satisfied that the Integrity Commissioner has the skills and abilities to perform the role of the Integrity Commissioner.

Now therefore the Corporation and the Integrity Commissioner agree as follows:

1. Appointment

- 1.1. The Corporation hereby retains and appoints the Integrity Commissioner as the Integrity Commissioner for the Corporation and the latter accepts such appointment and agrees to carry out the functions and duties of the Integrity Commissioner in accordance with the *Municipal Act* and By-law 19-2019, as amended, during the term of this Agreement.

2. Functions and Duties

2.1. The functions and duties of the Integrity Commissioner shall be:

- a) conduct inquiries in response to a complaint regarding whether a Member of Council has contravened the Council Code of Conduct, Corporation's policies, procedures, protocols and rules relating to the Code of Conduct, or sections 5, 5.1. or 5.2 of the *Municipal Conflict of Interest Act*, R.S.O. 1990, c. M.50;
- b) determine whether a Member of Council has violated any Corporation procedures, rules or policies governing ethical behaviour, and report any violation with any recommendation for sanctions to Council;
- c) at least once during the term of this Agreement, prepare and provide oral and written educational information for Members of Council, the Corporation and the public regarding the role of the Integrity Commissioner and ethical obligations and responsibilities of Members of Council under the Council Code of Conduct and any other procedures, rules or policies governing their ethical behaviour;
- d) upon request, provide advice to individual Members of Council regarding their ethical obligations and responsibilities under their Code of Conduct and any other procedures, rules or policies governing their ethical behaviour. This advice can include recommendations on the appropriate course of

action where Members of Council seek guidance based on specific factual circumstances;

- e) upon request, provide advice and recommendations to Council regarding amendments to the Code of Conduct and any other procedures, rules or policies governing their ethical behaviour; and
- f) prepare and deliver an annual report to Council containing a summary of activities, if any, during the previous calendar year.

3. Term and Renewal

- 3.1. The term of this Agreement shall commence on November 1st 2022 and shall continue until December 31, 2024, unless terminated prior thereto in accordance with the terms of this Agreement.
- 3.2. The Integrity Commissioner's appointment pursuant to this Agreement may be renewed for a further two (2) years at the Corporation's sole discretion and on the same terms of this Agreement, with the exception of section 5, Compensation, which shall be renegotiated.

4. Termination

- 4.1. The Corporation reserves the right to terminate this Agreement at its sole discretion upon providing the Integrity Commissioner with thirty (30) days' written notice.

5. Compensation

- 5.1. The Corporation agrees to pay the Integrity Commissioner as follows:
 - a) November 1, 2022, to December 31, 2023: An annual retainer fee of \$5,000.00 plus HST, for the time that the Integrity Commissioner is actively carrying out his duties pursuant to subsections 2.1 c), d), e) and f) of this Agreement. The first annual retainer fee of \$5,000 plus HST shall be payable January 1st, 2023.
 - b) January 1, 2024, to December 31, 2024: An annual retainer fee of \$5,000, plus HST, for the time that the Integrity Commissioner is actively carrying out his duties pursuant to subsections 2.1 c), d), e) and f) of this Agreement. The said retainer shall be payable on January 1, 2024.
 - c) During the full term of this Agreement: An hourly fee of \$200, plus HST, for the time that the Integrity Commissioner is actively carrying out his duties pursuant to subsections 2.1 a) and b) of this Agreement.
- 5.2. The Corporation shall reimburse the Integrity Commissioner for mileage, with the exception of section 5.3 of this Agreement, at the rate prescribed by the Canada Revenue Agency.
- 5.3. The Corporation shall not reimburse the Integrity Commissioner for mileage when he is required to travel to the Corporation's offices.
- 5.4. Should the Integrity Commissioner require a meeting space at the Corporation's offices, the Corporation's Clerk or Chief Administrative Officer shall make arrangements to provide such space at the Corporation's offices on an as needed and as available basis. In arranging for such space, the Corporation will be mindful of the importance of confidentiality. The Integrity Commissioner may request space in an external facility if the space offered at the Corporation's offices could, in the opinion of the Integrity Commissioner, give rise to confidentiality concerns. If this is the case, the Integrity Commissioner shall make the necessary arrangements to find space in an external facility and obtain approval under section 5.5 of this Agreement before incurring any costs.
- 5.5. The Integrity Commissioner shall not seek reimbursement from the Corporation for any costs incurred by him, which are not specifically set out in this Agreement, unless such costs are pre-authorized in writing by the Corporation's Clerk or Chief Administrative Officer.

- 5.6. The Integrity Commissioner shall provide the Corporation with a monthly invoice detailing the hours worked and expenses incurred for the period in question for the work performed pursuant to subsection 5.1c) of this Agreement.
- 5.7. The Corporation shall pay the amount of any invoice submitted in accordance with this Agreement within thirty (30) days of the date of receipt.

6. Integrity Commissioner's Status

- 6.1. In performing his functions and duties as Integrity Commissioner pursuant to this Agreement, it is recognized that the Integrity Commissioner is independent of the Corporation's administration and shall report directly to the Council of the Corporation.
- 6.2. The Integrity Commissioner acknowledges that he is an independent contractor and shall not be deemed an employee of the Corporation, for any purpose. The Integrity Commissioner further acknowledges that, as an independent contractor, he will not be entitled to any employment-related benefits, including such benefits that are applicable to employees of the Corporation.
- 6.3. For purposes of the Ontario Municipal Employees' Retirement System (OMERS), the Parties acknowledge that, by virtue of the Integrity Commissioner's status as an independent contractor, he will not be enrolled in OMERS and the Corporation shall not be required to contribute to OMERS in accordance with the prevailing legislation.
- 6.4. In light of the Integrity Commissioner's status as an independent contractor, the Corporation shall have no responsibility whatsoever with regard to any income taxes or any other remittances which may be payable by the Integrity Commissioner on the fees paid under this Agreement. The Corporation assumes no obligation or liability as between the Parties to deduct or remit any statutory or government remittances.

7. Confidential Information

- 7.1. During the term of this Agreement, pursuant to subsection 223.4.1(11) of the *Municipal Act*, the Integrity Commissioner is entitled to have free access to all books, accounts, financial records, electronic data processing records, reports, files and all other papers, things or property belonging to or used by the Corporation that the Commissioner believes to be necessary for an inquiry.
- 7.2. The Integrity Commissioner and any delegate under section 9.2 of this Agreement shall preserve secrecy with respect to all matters that come to his or her knowledge in the course of carrying out any of the duties of the Integrity Commissioner under this Agreement, except as required by law in a criminal proceeding or in accordance with section 223.5 of the *Municipal Act*.
- 7.3. The Integrity Commissioner and any delegate under section 9.2 of this Agreement acknowledge that the Corporation is an institution for the purposes of the *Municipal Freedom of Information and Protection of Privacy Act*, R.S.O. 1990, c. M.5 (the "MFIPPA"). Accordingly, the Integrity Commissioner and any delegate under section 9.2 of this Agreement undertake not to disclose information subject to the MFIPPA except as may be necessary in the proper discharge of his functions and duties pursuant to the terms of this Agreement and in accordance with the MFIPPA and the *Municipal Act*.
- 7.4. Pursuant to subsection 223.5(3) of the *Municipal Act*, section 223.5 of the *Municipal Act* prevails over the MFIPPA.
- 7.5. The Integrity Commissioner and any delegate under section 9.2 of this Agreement shall comply with the Corporation's Procedure By-law in terms of personal or privileged information.
- 7.6. A disclosure to the Integrity Commissioner and any delegate under section 9.2 of this Agreement of legal advice:
 - a) shall be used only for the purpose of conducting an inquiry and not for any other purpose; and

- b) the contents or substance of such legal advice shall not be disclosed in any public report prepared by the Integrity Commissioner or and any delegate under section 9.2 of this Agreement.

7.7. Section 7 of this Agreement shall survive the termination of this Agreement.

8. Subcontracting

- 8.1. Subject to any delegation authorized pursuant to section 9.2 of this Agreement, the Integrity Commissioner shall not assign or sublet any portion of his functions and duties as the Integrity Commissioner under this Agreement.

9. Conflicts and Delegation

- 9.1. The Integrity Commissioner shall not have any conflicts of interest that would interfere with carrying out the functions and duties under this Agreement. Without limiting the generality of the foregoing, the Integrity Commissioner specifically acknowledges that he:
 - a) is not an employee of the Corporation;
 - b) does not have a financial interest in any matters involving the Corporation;
 - c) does not have an interest in matters before the Council of the Corporation or in any work undertaken by the Corporation; and
 - d) does not have and never has had, any involvement in the municipal politics of the Council of the Corporation.
- 9.2. If the Integrity Commissioner becomes aware of a situation where a conflict of interest could arise or that he is unable to carry on his duties for a valid reason, the Integrity Commissioner shall advise the Corporation's Clerk and Members of Council in writing and delegate in writing his functions and duties to conduct an inquiry, including the exercise of powers under the *Public Inquiries Act, 2009*, S.O. 2009, c. 33, Sched. 6, and the duty to report on an inquiry.
- 9.3. In making a delegation under section 9.2 of this Agreement, the Integrity Commissioner shall first satisfy himself that the person to whom the duties are to be delegated is fully capable of carrying out these functions and duties.

10. Indemnification and Insurance

- 10.1. Pursuant to subsection 223.3(6) of the *Municipal Act*, the Corporation agree to indemnify and save harmless the Integrity Commissioner or any person acting under his instructions for costs reasonably incurred by either of them in connection with the defense of a proceeding if the proceeding relates to an act done in good faith in the performance or intended performance of a duty or authority under Part. V.1 – Accountability and Transparency of the *Municipal Act* or a by-law passed under it or an alleged neglect or default in the performance in good faith of the duty or authority.
- 10.2. The Integrity Commissioner shall, at his own expense, within 10 days of notification of acceptance and prior to the commencement of work, obtain and maintain until the termination of this Agreement, and provide the Corporation with certificates of insurance showing evidence of:
 - a) *Automobile Liability Insurance*
Automobile liability insurance with respect to owned or leased vehicles used directly or indirectly in the performance of the services under this Agreement covering liability for bodily injury, death and damage to property, with a limit of not less than \$2,000,000, inclusive for each and every loss.
 - b) *Professional Liability Insurance (Errors and Omissions)*
Insurance coverage shall be obtained to a limit of not less than \$2,000,000. If such insurance is written on a claim-made basis, the policy shall contain a twenty-four (24)-month extended reporting period or shall be maintained for a period of two (2) years subsequent to conclusion of services provided under this Agreement. The Corporation shall be added as an additional

Insured. This insurance shall be non-contributing with and apply as primary and not as excess of any insurance available.

10.3. The insurance as required under subsection 10.2 of this Agreement shall not be terminated, cancelled or materially altered unless written notice of such termination, cancellation or material is given by the insurers to the Corporation's Clerk at least thirty (30) clear days before the effective date thereof. Any revisions must be submitted to the Corporation's Clerk for approval.

10.4. Any and all deductibles applicable to the above insurance shall be the sole responsibility of the Integrity Commissioner and the Corporation shall bear no cost towards such deductible.

10.5. The Integrity Commissioner shall be responsible for keeping their property/assets insured. Failure to do so shall not impose any liability on the Corporation.

10.6. Section 10 of this Agreement shall survive the termination of this Agreement.

11. General Provisions

11.1. This Agreement shall be governed by and construed in accordance with the laws of the Province of Ontario and the laws of Canada applicable therein, and as may be amended from time to time, and shall be treated in all respects as an Ontario contract.

11.2. If any provision of this Agreement is declared to be void or unenforceable, such provision shall be deemed to be separate from the remainder of this Agreement to the extent of the particular circumstances giving rise to such declaration, and such provision as it applies to other persons and circumstances and the remaining terms and conditions of this Agreement shall remain in full force and effect.

11.3. This Agreement constitutes the entire agreement between the Parties and supersedes all previous negotiations, understandings and agreement, whether verbal or written, with respect to any matters referred to in this Agreement.

11.4. This Agreement shall enure to the benefit of, and be binding on, the Parties and their successors and assigns.

11.5. This Agreement may only be changed or amended in writing duly executed by the duly authorized representatives of the Parties.

In witness of the foregoing terms and conditions, the Corporation and Integrity Commissioner have executed this Agreement.

Dated on this day _____ of _____, 2022

**The Corporation of The Nation
Municipality**

Société Professionnelle LaCombe

Name: Josée Brizard
Title: CAO Clerk

Name: Jean-Jacques LaCombe
Title: President

**EXEMPTION FROM PART LOT CONTROL BY-LAW
CORPORATION OF THE NATION MUNICIPALITY
BY-LAW NO. 112- 2022**

"Being a By-law to exempt certain lands from Part Lot Control, in LTS 34, 36 AND 38 Registered Plan H.O. WOOD P.L.S. DATED JULY 6, 1886, on a Street legally named MABEL STREET, in the Nation Municipality and in the County of Russell."

WHEREAS pursuant to the request from TMJ CONSTRUCTION INC., it is expedient to exempt from Part Lot Control certain lands being LTS 34, 36 AND 38 Registered Plan H.O. WOOD P.L.S. DATED JULY 6, 1886, on a Street legally named Mabel Street;

WHEREAS the Planning Act, R.S.O. 1990, c.P.13, as amended, (the "Planning Act") subsection 50(5) provides that all lands within a plan of subdivision are subject to part lot control;

WHEREAS authority is vested in Council of municipalities by the Planning Act, subsection 50(7) to enact by-laws which provide that subsection 50(5) does not apply to lands that are within a registered plan of subdivision as are designated in the by-law;

AND WHEREAS the Planning Act, subsection 50(7.1) does not come into effect until approved by the United Counties of Prescott and Russell;

NOW THEREFORE THE COUNCIL OF THE CORPORATION OF THE NATION MUNICIPALITY ENACTS AS FOLLOWS:

1. a) Part 1 on Plan 50R11365 being PART of LT 34, Registered Plan H.O. WOOD P.L.S. DATED JULY 6, 1886 (part of PIN 69033-0424LT), designated for the purpose of this By-Law as Parcel "A"; and

b) Part 2 on Plan 50R11365 being PART of LT 34, and PART of LT 36 Registered Plan H.O. WOOD P.L.S. DATED JULY 6, 1886 (part of PIN 69033-0424LT), designated for the purpose of this by-law as Parcel "B"; and

c) Part 3 on Plan 50R11365 being PART of LT 36 Registered Plan H.O. WOOD P.L.S. DATED JULY 6, 1886 (part of PIN 69033-0424LT), designated for the purpose of this by-law as Parcel "C"; and

d) Part 4 on Plan 50R11365 being PART of LT 36, and PART of LT 38 Registered Plan H.O. WOOD P.L.S. DATED JULY 6, 1886 (part of PIN 69033-0424LT), designated for the purpose of this by-law as Parcel "D".

2. That this By-Law shall come into force upon approval and shall expire on September 26, 2024 unless the Council of the Corporation of the Nation Municipality has provided an extension by amendment to this by-law prior to its expiry.

3. THAT this By-law comes into force and effect when it is approved by the United Counties of Prescott and Russell.

4. THAT this by-law shall not be construed as to permit the further resubdivision or severance of any such parcel.

5. Registration of this by-law in the proper land registry office is authorized and this by-law shall thereupon become effective.

READ A FIRST, SECOND AND THIRD TIME AND FINALLY PASSED THIS 26TH DAY OF SEPTEMBER 2022.

Francois St-Amour
Mayor

Josee Brizard
Clerk

Pursuant to the United Counties of Prescott and Russell By-Law 2020-16, this by-law, having met the criteria for Part Lot Control exemption, is hereby APPROVED under Section 50(7) of the Planning Act, R.S.O. 1990, as amended.

, United Counties of Prescott and Russell

Accounts Payable Cheque Register Report - Caisse Populaire Nouvel-horizon Inc.-603910

For The Date Range From 09/14/2022 To 09/27/2022

For All Vendors And For Outstanding, Cleared Cheques - Computer Generated, eCheque

Cheque # / eCheque ID	Type	Date	Vendor	Name	Amount	Status
12936	C	09/27/2022	7	A.L. BLAIR CONSTRUCTION LTD	\$4,654.31	O
12937	C	09/27/2022	177	GAGNE & FILS EXCAVATION LTEE	\$18,195.85	O
12938	C	09/27/2022	212	JP DESIGN	\$812.58	O
12939	C	09/27/2022	227	LAFLECHE SALES AND SERVICE	\$36.16	O
12940	C	09/27/2022	253	LEO SARAULT & FILS INC EXCAVATION	\$9,369.96	O
12941	C	09/27/2022	257	LEROUX MARC	\$113.75	O
12942	C	09/27/2022	268	BURELLE RENTOOLS	\$33.90	O
12943	C	09/27/2022	274	LSC SANITATION	\$572.06	O
12944	C	09/27/2022	286	MEUBLE HOME FURNITURE	\$146.54	O
12945	C	09/27/2022	294	MINISTRY OF TRANSPORTATION	\$16.50	O
12946	C	09/27/2022	366	RECEVEUR GENERAL DU CANADA	\$81.12	O
12947	C	09/27/2022	440	MINISTER OF FINANCE	\$2,418.45	O
12948	C	09/27/2022	444	TRAITEMENT D'EAU DESFORGES	\$169.50	O
12949	C	09/27/2022	459	VICE & HUNTER LLP	\$227.13	O
12950	C	09/27/2022	495	BOBBY LALONDE MUSIC	\$4,615.37	O
12951	C	09/27/2022	666	ASSOCIATION D'HOCKEY MINEUR DE ST-ISIDORE	\$1,000.00	O
12952	C	09/27/2022	756	EMBELLISSEMENT LIMOGES	\$1,347.78	O
12953	C	09/27/2022	935	ST-ALBERT CONSTRUCTION	\$1,000.00	O
12954	C	09/27/2022	1098	BLAIR ASPHALT PRODUCTS	\$358.44	O
12955	C	09/27/2022	1200	LE COIN DU LIVRE	\$137.52	O
12956	C	09/27/2022	1712	DAVID RIDDELL EXCAVATION/TRANSPORT	\$59,988.97	O
12957	C	09/27/2022	2815	INTEGRATED DESIGN ENGINEERING & ARCHITECTURE	\$10,882.76	O
12958	C	09/27/2022	2907	CINNAMON TOAST NEW MEDIA INC.	\$395.50	O
12959	C	09/27/2022	3113	HAWKESBURY SERVICE TELECOM LTD.	\$329.45	O
12960	C	09/27/2022	3127	JEREMY GAUTHIER	\$300.00	O
12961	C	09/27/2022	3160	POWER LAWN CARE	\$11,661.60	O
12962	C	09/27/2022	3175	SAMUEL ROLL FORM GROUP	\$232,554.00	O
12963	C	09/27/2022	3179	EXCAVATION ALAIN LEMAY INC.	\$32,451.45	O
12964	C	09/27/2022	3187	COMITE DE REVITALISATION DU PARC JEAN-PAUL CHARL ED	\$1,700.00	O
12965	C	09/27/2022	3188	LABELLE TENTS	\$1,237.35	O
12966	C	09/27/2022	3189	LES MINIJEUX GONFLABLES CHARTRAND	\$1,570.70	O
63857	E	09/27/2022	9	AALTO TECHNOLOGIES	\$77.97	O
63858	E	09/27/2022	11	ABC DISPOSAL	\$508.31	O
63859	E	09/27/2022	12	A/C MECHANICAL REFRIGERATION LTD	\$2,687.59	O
63860	E	09/27/2022	15	AFFUTAGE LEROUX H	\$98.72	O

Accounts Payable Cheque Register Report - Caisse Populaire Nouvel-horizon Inc.-603910

For The Date Range From 09/14/2022 To 09/27/2022

For All Vendors And For Outstanding, Cleared Cheques - Computer Generated, eCheque

Cheque # / eCheque ID	Type	Date	Vendor	Name	Amount	Status
63861	E	09/27/2022	30	AUTO PARTS EXTRA PIECES D'AUTO	\$716.13	O
63862	E	09/27/2022	51	M.R BLAIS SALES & SERVICES INC	\$56.44	O
63863	E	09/27/2022	65	BRAZEAU SANITATION INC	\$1,084.80	O
63864	E	09/27/2022	71	BYTOWN LUMBER	\$1,393.18	O
63865	E	09/27/2022	86	CASSEL BREWERY COMPANY LTD	\$437.99	O
63866	E	09/27/2022	93	CATHOLIC DISTRICT SCHOOL BOARD OF EASTERN ONTAR IO	\$73,715.98	O
63867	E	09/27/2022	101	LBEL INC	\$364.31	O
63868	E	09/27/2022	110	COLACEM CANADA INC	\$623.57	O
63869	E	09/27/2022	112	CONSEIL SCOLAIRE DISTRICT CATHOLIQUES EST ONTARI ENI	\$298,114.72	O
63870	E	09/27/2022	113	CONSEIL DES ECOLES PUBLIQUES	\$134,422.05	O
63871	E	09/27/2022	116	UNIAG COOPERATIVE	\$740.81	O
63872	E	09/27/2022	117	COOPERATIVE AGRICOLE D'EMBRUN	\$454.46	O
63873	E	09/27/2022	119	CRANE SUPPLY	\$660.45	O
63874	E	09/27/2022	131	DRAIN-ALL LTD	\$2,114.51	O
63875	E	09/27/2022	144	ELECTROLANN INC	\$1,445.80	O
63876	E	09/27/2022	147	ENTREPRISE BOURDEAU	\$405.25	O
63877	E	09/27/2022	171	FUTURE OFFICE PRODUCTS	\$717.31	O
63878	E	09/27/2022	202	J.B. MOBILE MECHANIC INC	\$4,908.92	O
63879	E	09/27/2022	204	J.R BRISSON EQUIP LTEE	\$5,848.52	O
63880	E	09/27/2022	206	JEAN-CLAUDE CAYER ENTREPRISES	\$283.26	O
63881	E	09/27/2022	225	GFL ENVIRONMENTAL INC	\$9,194.03	O
63882	E	09/27/2022	235	LAMOUREUX PUMPING INC	\$711.90	O
63883	E	09/27/2022	237	LAPLANTE CHEVROLET BUICK GMC LIMITED	\$102.29	O
63884	E	09/27/2022	239	LASCELLES ENGINEERING LTD	\$734.50	O
63885	E	09/27/2022	255	LEROUX JEANNE	\$215.60	O
63886	E	09/27/2022	262	LES SERVICES EXP INC	\$4,890.69	O
63887	E	09/27/2022	264	LEVAC PROPANE INC	\$69.54	O
63888	E	09/27/2022	267	LIONEL DESNOYERS REFRIGERATION	\$466.69	O
63889	E	09/27/2022	269	LOCATION SHALKA RENTAL LTD	\$1,054.64	O
63890	E	09/27/2022	289	MIKE'S WASTE DISPOSAL INC	\$2,841.75	O
63891	E	09/27/2022	313	OMERS	\$67,693.94	O
63892	E	09/27/2022	323	PAPETERIE GERMAIN INC	\$228.10	O
63893	E	09/27/2022	351	PNEU LANDRIAULT TIRE	\$254.08	O
63894	E	09/27/2022	364	RAPCO EQUIPMENT INC	\$329.41	O
63895	E	09/27/2022	400	SOLENO INC	\$3,345.85	O

Accounts Payable Cheque Register Report - Caisse Populaire Nouvel-horizon Inc.-603910

For The Date Range From 09/14/2022 To 09/27/2022

For All Vendors And For Outstanding, Cleared Cheques - Computer Generated, eCheque

Cheque # / eCheque ID	Type	Date	Vendor	Name	Amount	Status
63896	E	09/27/2022	402	SOUTH NATION CONSERVATION DE LA NATION SUD	\$33,630.00	O
63897	E	09/27/2022	405	SPROULE POWERLINE	\$4,952.23	O
63898	E	09/27/2022	438	THE REVIEW	\$67.57	O
63899	E	09/27/2022	443	TOWNSHIP OF ALFRED & PLANTAGENET	\$35,114.24	O
63900	E	09/27/2022	449	UNIPRO ST-ISIDORE	\$1,198.70	O
63901	E	09/27/2022	450	UNITED COUNTIES OF PRESCOTT &	\$1,880,304.00	O
63902	E	09/27/2022	452	UPPER CANADA DISTRICT SCHOOL	\$399,886.83	O
63903	E	09/27/2022	455	USTI CANADA INC	\$633.54	O
63904	E	09/27/2022	458	VIA RAIL CANADA INC	\$1,635.00	O
63905	E	09/27/2022	512	RECYCLE ACTION	\$27,659.04	O
63906	E	09/27/2022	621	HAMEL YANNICK	\$513.50	O
63907	E	09/27/2022	954	CDW CANADA INC.	\$2,180.95	O
63908	E	09/27/2022	1259	SSC Maintenance Services Inc	\$4,265.55	O
63909	E	09/27/2022	1280	JOE JOHNSON EQUIPMENT	\$2,246.22	O
63910	E	09/27/2022	1308	AJ STONE COMPANY LTD	\$4,214.62	O
63911	E	09/27/2022	1316	BPM PROPERTY MAINTENANCE	\$7,994.75	O
63912	E	09/27/2022	1375	ALIMPLUS INC	\$727.81	O
63913	E	09/27/2022	1393	BEACON LITE (OTTAWA) LTD.	\$1,887.10	O
63914	E	09/27/2022	1405	ESI TECHNOLOGIES DE L'INFORMATION INC	\$942.67	O
63915	E	09/27/2022	1494	A.B.C. Recreation Ltd	\$197.75	O
63916	E	09/27/2022	1615	R.V ANDERSON ASSOCIATIES LIMITED	\$4,446.55	O
63917	E	09/27/2022	1773	A.D.R. DISTRIBUTION	\$132.00	O
63918	E	09/27/2022	1794	COALWATER EXCAVATION INC.	\$2,000.00	O
63919	E	09/27/2022	1829	MAXI POWER ELECTRICAL SERVICES INC.	\$1,553.94	O
63920	E	09/27/2022	1842	SELECTCOM INC	\$2,459.55	O
63921	E	09/27/2022	1902	MATERIAUX PONT-MASSON RONA	\$143.69	O
63922	E	09/27/2022	2031	HACH SALES & SERVICE CANADA LP	\$1,340.22	O
63923	E	09/27/2022	2035	SUNBELT RENTALS, INC	\$9,410.64	O
63924	E	09/27/2022	2108	TELMATIK	\$437.88	O
63925	E	09/27/2022	2423	W.O. STINSON & SON LTD.	\$17,675.86	O
63926	E	09/27/2022	2531	BOURGON ETIENNE	\$200.00	O
63927	E	09/27/2022	2600	JULIEN BENOIT	\$2,475.00	O
63928	E	09/27/2022	2857	MPLOCKSMITH	\$1,547.33	O
63929	E	09/27/2022	3041	AIRON HVAC AND CONTROL LTD.	\$880.95	O
63930	E	09/27/2022	3088	PITNEY BOWES POSTAGE BY PHONE	\$4,550.00	O

Accounts Payable Cheque Register Report - Caisse Populaire Nouvel-horizon Inc.-603910

For The Date Range From 09/14/2022 To 09/27/2022

For All Vendors And For Outstanding, Cleared Cheques - Computer Generated, eCheque

Cheque # / eCheque ID	Type	Date	Vendor	Name	Amount	Status
63931	E	09/27/2022	3119	HIBON INC.	\$1,347.81	O
63932	E	09/27/2022	3178	ARMTEC INC.	\$681,477.10	O
B2B2C	E	09/27/2022	560	B2B2C	\$152.55	O
BELL CANADA	E	09/27/2022	43	BELL CANADA	\$425.45	O
BELL CANADA	E	09/27/2022	46	BELL CANADA	\$1,023.78	O
BELL MOBILITY INC.	E	09/27/2022	47	BELL MOBILITY INC.	\$273.62	O
ENBRIDGE CONSUMER GAS	E	09/27/2022	146	ENBRIDGE CONSUMER GAS	\$87.03	O
HYDRO ONE NETWORKS INC	E	09/27/2022	198	HYDRO ONE NETWORKS INC	\$30,641.74	O
IMPERIAL OIL - ROAD- 188890	E	09/27/2022	479	IMPERIAL OIL - ROAD-188890	\$981.43	O
RECEVEUR GENERAL DU CANADA	E	09/27/2022	366	RECEVEUR GENERAL DU CANADA	\$55,795.60	O
SHAW DIRECT	E	09/27/2022	1729	SHAW DIRECT	\$89.24	O
THE BEER STORE	E	09/27/2022	42	THE BEER STORE	\$2,283.52	O
VISA DESJARDINS	E	09/27/2022	465	VISA DESJARDINS	\$18,818.63	O
WORKPLACE SAFETY INSURANCE	E	09/27/2022	475	WORKPLACE SAFETY INSURANCE	\$1,248.64	O

TOTAL**\$4,276,544.58**

Aimée Roy

From: Club Le Réveil de Fournier <prescal@xplornet.ca>
Sent: Friday, September 16, 2022 9:42 AM
To: Aimée Roy; Josée Brizard
Subject: New submission from Demande de don

Formulaire de demande de don

Nom de l'organisation

Club Le Réveil de Fournier

Adresse postale

[REDACTED]
Fournier, Ontario K0B 1G0
Canada
[Map It](#)

Téléphone

[REDACTED]

Nom de la personne ressource

Cécile Gauthier

Téléphone

[REDACTED]

Adresse courriel

[REDACTED]

Section B - Sommaire de la demande

Votre demande est pour:

- Activité pour l'année

Montant demandé

500.00

Cas échéant: si le montant demandé est plus que l'année précédente, veuillez justifier

un montant additionel

Nom de l'activité ou liste des activités

Party de Noel

Description de l'activité ou liste des activités

souper, musique, cadeaux

Date de début de l'activité

12/14/2022

Endroit(s) de l'activité / des activités

3210 ch. comté 9
Centre Communautaire de Fournier

Est-ce que vous chargez un frais d'admission?

- Autre

Décrire comment la contribution de La Nation sera-t-elle reconnue

contribution pour le souper

Le cas échéant, l'organisme consent à remettre un rapport au Conseil de La Nation

Oui

Aimée Roy

From: Union Culturelle des Franco-Ontariennes <nicbeaus@outlook.com>
Sent: Saturday, September 10, 2022 8:32 PM
To: Aimée Roy; Josée Brizard
Subject: New submission from Demande de don

Follow Up Flag: FollowUp
Flag Status: Flagged

Formulaire de demande de don

Nom de l'organisation

Union Culturelle des Franco-Ontariennes

Adresse postale

[REDACTED]
[REDACTED]
St Isidore, Ontario K0C2B0
Canada
[Map It](#)

Téléphone

[REDACTED]

Nom de la personne ressource

Nicole Beauchesne

Téléphone

[REDACTED]

Adresse courriel

[REDACTED]

Section B - Sommaire de la demande

Votre demande est pour:

- Activité pour l'année

Montant demandé

800.00

Cas échéant: si le montant demandé est plus que l'année précédente, veuillez justifier

non

Nom de l'activité ou liste des activités

-Payé les frais pour le Marché d'automne à la Ferme l'Artisan
-Payer pour la location de la salle communautaire de St Isidore

Description de l'activité ou liste des activités

location de la salle pour les rencontres de nos réunions à tous les mois et les frais du Marché d'automne

Date de début de l'activité

09/07/2022

Endroit(s) de l'activité / des activités

Nos rencontre mensuelle a la salle communautaire de la paroisse St Isidore.
Ferme l'Artisan pour le Marché d'Automne

Est-ce que vous chargez un frais d'admission?

- Non

Décrire comment la contribution de La Nation sera-t-elle reconnue

Nous allons informer nos membre de LCFO du généreus don que La Nation nous a offert.

Le cas échéant, l'organisme consent à remettre un rapport au Conseil de La Nation

Oui

Aimée Roy

From: Nation & Area Senior's <info@cinnamontoast.ca>
Sent: Monday, September 12, 2022 9:35 AM
To: Josée Brizard; Aimée Roy
Subject: New submission from Donation Request

Donation request form

Organization's Name

Nation & Area Senior's

Mailing Address

[REDACTED]
Fournier, Ontario K0B 1G0
Canada
[Map It](#)

Telephone

[REDACTED]

Contact person's name

Karen Clemens-Hovey

Telephone

[REDACTED]

Email

[REDACTED]

Section B - Application Summary

Your request is for

- One activity / event

Amount Requested

\$600.00

Name of activity or list of activities

Turn the COVID corner Christmas Party

Description of activity / activities' summary:

Dinner, entertainment, door prizes (invitations to Seniors & friends from our local area)

Activity Start Date

12/06/2022

Location of activity / activities

Fournier Community Centre

Is admission free?

- No

If yes, what is the admission fee?

\$15.00

Describe how The Nation will be recognized during your event(s)?

An acknowledgement at our dinner and a posting on Facebook

If applicable, the organism consents to sending a report to The Nation Council

Yes



Club Optimiste St-Isidore #2017

C.P. 247
St-Isidore ON K0C 2B0
cluboptimistestisidore@gmail.com

Municipalité de la Nation
958, Route 500 Ouest
Casselman, ON
K0A 1M0

16 Septembre 2022

À qui de droit,

C'est avec grand bonheur et enthousiasme que le Club Optimiste de St-Isidore s'apprête à planifier le Noël des enfants 2022. Suite à la mise en veille de cette activité depuis le début de la pandémie, les membres sont fébriles à l'idée d'enfin accueillir les enfants et adultes de la communauté dans cet esprit festif et rassembleur que nous apporte le temps des fêtes. Je vous contacte donc afin de rendre possible une parade du Père-Noël dans les rues du village de St-Isidore. L'an dernier, vu les restrictions encore en vigueur, nous n'avions que le chariot du Père-Noël, décoré par le Club. À lui seul, il a été un franc succès. Nous voulons donc, cette année, organiser une parade plus élaborée avec différents chars allégoriques des entreprises d'ici et des environs. Le tout aurait lieu le 10 décembre. Je vous contacte donc pour savoir si nous pouvons compter sur votre aide pour le déroulement de cette soirée.

Ainsi, j'aimerais savoir qu'elle serait la personne à joindre afin de mieux nous diriger dans la planification de cet événement (fermetures de routes, etc.). Nous aimerions également avoir l'appui des pompiers pour assurer la sécurité lors du défilé.

Puisque je serais la personne en charge de cet événement, prière de me contacter à l'adresse courriel ci-dessous : me_sicotte@yahoo.ca.

Bien à vous,

Marie-Eve Sicotte

Secrétaire

Stéphanie Quesnel

Présidente du Club Optimiste St-Isidore #2017.

Current Outbreaks

Please be advised that the following facilities are or were experiencing outbreaks.

Date Format: Year-Month-Day

DATE: 2022-09-23

FACILITY	LOCATION	TYPE OF OUTBREAK	ORGANISM	DATE REPORTED	DATE DECLARED OVER	DATE LAST MODIFIED
Heartwood LTC	Cornwall	COVID	COVID	2022-09-21		2022-09-21
Cornwall Community Hospital 6 South	Cornwall	MSRA	MSRA	2022-09-20		2022-09-20
Russell Meadows Retirement Home	Russell	COVID	COVID	2022-09-20		2022-09-20
Heritage Manor	Cornwall	COVID	COVID	2022-09-20		2022-09-20
Cornwall Community Hospital - 1700 POD	Cornwall	COVID	COVID	2022-09-16		2022-09-16
St- Joseph's Complex Continuing Care (Mantel House)	Cornwall	COVID	COVID	2022-09-14	2022-09-22	2022-09-22
St Joseph's Continuing Care Centre (McNeil House)	Cornwall	COVID	COVID	2022-09-12		2022-09-13
Riverdale Terrace	Cornwall	COVID	COVID	2022-09-12		2022-09-12
Caessant Care Nursing Home	Bourget	COVID	COVID	2022-09-10		2022-09-12
Naomi's Family Resource Center	Winchester	COVID	COVID	2022-09-08	2022-09-20	2022-09-20
Heritage Manor	Cornwall	Enteric	Unknown	2022-09-08	2022-09-20	2022-09-20
St-Joseph's Continuing Care Centre (Quinn House)	Cornwall	COVID	COVID	2022-09-08		2022-09-08
Cornwall Community Hospital 2500 POD	Cornwall	COVID	COVID	2022-09-06	2022-09-13	2022-09-13
Residence Aquatria	Casselman	COVID	COVID	2022-09-06		2022-09-06
St-Jacques Nursing Home	Embrun	COVID	COVID	2022-09-02	2022-09-16	2022-09-16
Cornwall Community Hospital - 2600 POD	Cornwall	COVID	COVID	2022-08-31	2022-09-19	2022-09-21
Château Glengarry	Alexandria	COVID	COVID	2022-08-31	2022-09-09	2022-09-09
Chartwell Hartford Retirement Residence	Morrisburg	COVID	COVID	2022-08-30	2022-09-09	2022-09-09
St-Joseph's Continuing Care Centre (Kane House) LTC	Cornwall	COVID	COVID	2022-08-29	2022-09-22	2022-09-22
McGill Manor 1	Hawkesbury	COVID	COVID	2022-08-22	2022-09-13	2022-09-13
Glengarry Memorial Hospital (Medicine & Rehab units)	Alexandria	MSRA	MSRA	2022-08-18		2022-08-18
Parisien Manor	Cornwall	COVID	COVID	2022-08-17	2022-09-12	2022-09-12
St- Joseph's Complex Continuing Care (Cobey House)	Cornwall	COVID	COVID	2022-08-12	2022-09-09	2022-08-12

COVID-19 Institutional Outbreak Definition

As of February 3rd 2022, the definition of a COVID-19 outbreak in an institution is two or more residents and/or staff/other visitors in a home (e.g., floor/unit) each with a positive PCR test OR rapid molecular test OR rapid antigen test result AND with an epidemiological link, within a 10-day period.

Local Influenza Activity

Influenza A cases have been reported in our region.

- [For provincial influenza activity, click here.](#)
- [For national influenza activity, click here.](#)

-
- [Click here to return to the previous page.](#)
 - [Click here to return to the home page.](#)



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www.EOHU.ca • 1 800 267-7120 • www.BSEO.ca



The Nation Municipality Municipalité de La Nation

Billing Model for OPP Municipal Policing Services

September 21st, 2022





Outline

OPP Annual Expenditures

OPP Billing Model

OPP Municipal Policing Cost Breakdown for The
Nation Municipality | Municipalité de La Nation

Community Safety and Policing Act, 2019

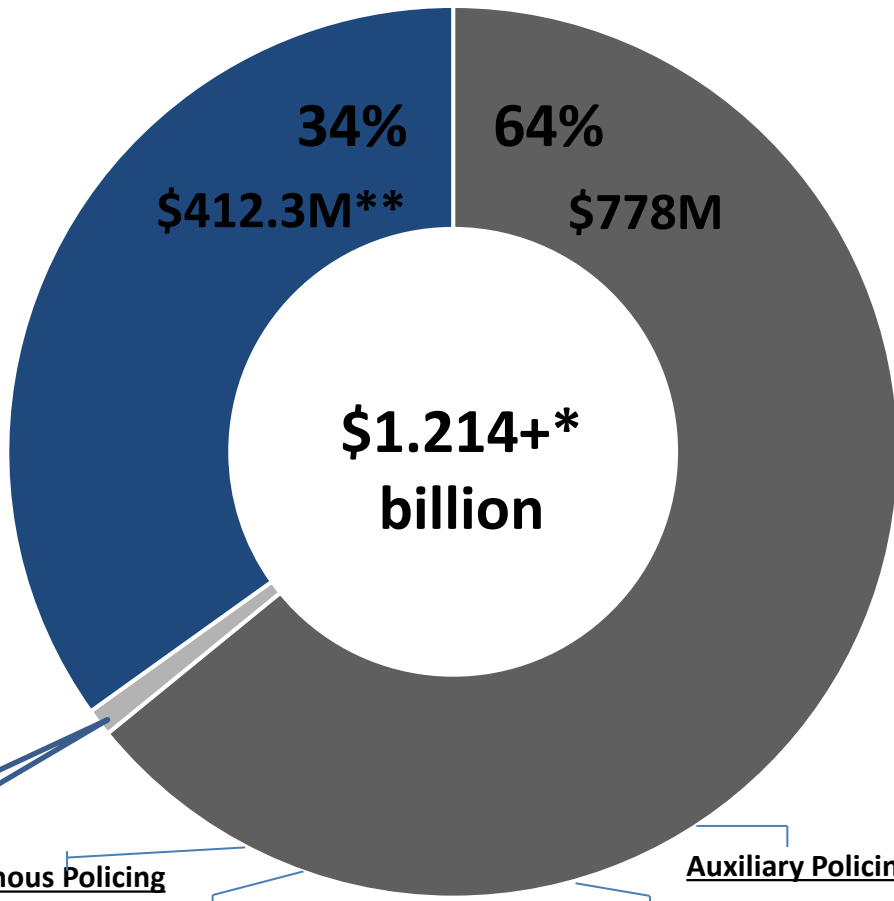


Ontario Provincial Police: Resources (2020-2021)

MUNICIPAL POLICING RESOURCES

PROVINCIAL / SPECIALIZED RESPONSIBILITIES

- Detachment Staff******
- Supervision
 - Frontline Constable
 - Civilian Administrative and Support
- Support Positions and ODOE******
- Communication Operators
 - Prisoner Guards
 - Provincial Police Academy and In-Service Training
 - Uniform Recruitment
 - Municipal Policing Bureau
 - Quality Assurance
 - Forensic Identification
 - IT and Telephone Support
 - Regional Headquarters
 - Vehicles
 - Uniform and equipment
 - Radios



- Traffic Safety**
- Aircraft Enforcement
 - Provincial Traffic Safety Program
 - Snowmobile All-Terrain Vessel Enforcement
 - Waterways and King’s Highway
- Investigations**
- Criminal Investigations
 - Child Sexual Exploitation Investigations
 - Anti-Rackets
 - Organized Crime
 - Investigation and Support
- Intelligence**
- Covert Operations
 - Provincial Anti-Terrorism and Hate Crimes
 - Analysis and Information
 - Field Intelligence
- Specialized Response Teams**
- Tactical Emergency Medical Services
 - Aviation Services
 - Canine Unit
 - Emergency Response Team
 - Negotiations
 - Tactics and Rescue Unit
 - Underwater Search and Recovery Unit
 - Urban Chemical Response Team

2%
\$23.6M***

Indigenous Policing

Unincorporated Territories

Community Safety

Auxiliary Policing

*OPP total cost is based on 2020-2021 operating and capital budget estimate (Source: [2020 OPP Annual Report](#))
 ** OPP municipal policing estimated cost for 2021 (excluding recoveries for municipalities in a 3+ years post-amalgamation transition contract)
 ***\$23.6M recoveries (including one-time initial cost) for OPP policing services provided to municipalities in a 3+ years post-amalgamation transition contract
 ****Municipalities are billed for the portion of detachment, support positions and other direct operating expenses (ODOE) required to meet their service demands



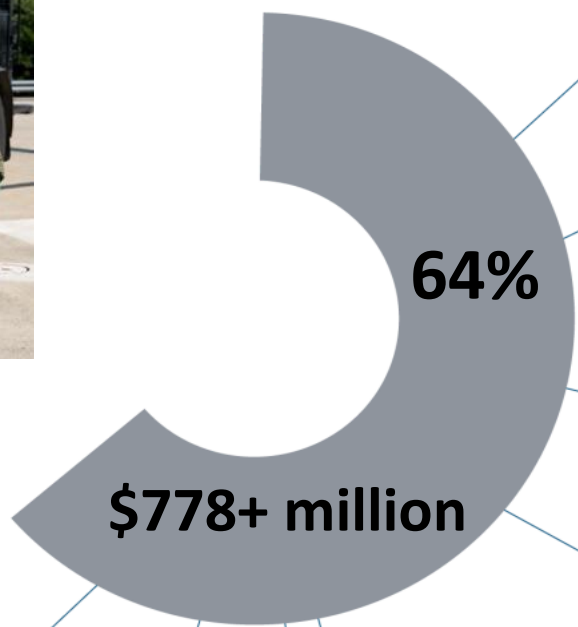
Indigenous Policing

Unincorporated Territory

Auxiliary Policing

Community Safety

PROVINCIAL / SPECIALIZED RESPONSIBILITIES



Traffic Safety

- Aircraft Enforcement
- Provincial Traffic Safety Program
- Snowmobile All-Terrain Vessel Enforcement
- Waterways and King's Highway

Investigations

- Criminal Investigations
- Child Sexual Exploitation Investigations
- Anti-Rackets
- Organized Crime
- Investigation and Support

Intelligence

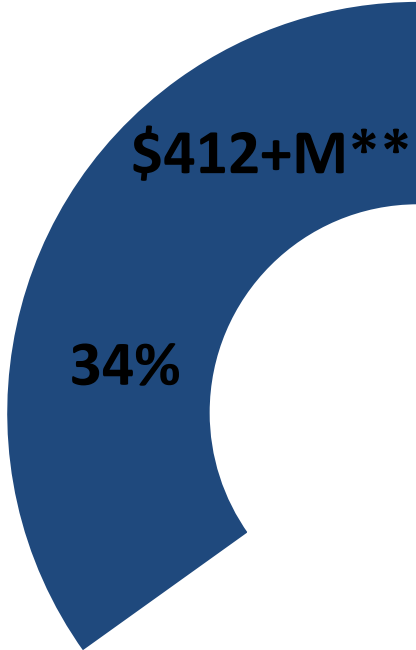
- Covert Operations
- Provincial Anti-Terrorism and Hate Crimes
- Analysis and Information
- Field Intelligence

Specialized Response Teams

- Tactical Emergency Medical Services
- Aviation Services
- Canine Unit
- Emergency Response Team
- Negotiations
- Tactics and Rescue Unit
- Underwater Search and Recovery Unit
- Urban Chemical Response Team



MUNICIPAL POLICING RESOURCES



Detachment Staff****

- Supervision
- Frontline Constable
- Civilian Administrative and Support

Support Positions and ODOE****

- Communication Operators
- Prisoner Guards
- Provincial Police Academy and In-Service Training
- Uniform Recruitment
- Municipal Policing Bureau
- Quality Assurance
- Forensic Identification
- IT and Telephone Support
- Regional Headquarters
- Vehicles
- Uniform and equipment
- Radios

** OPP municipal policing estimated cost for 2019 (excluding recoveries for amalgamated municipalities)

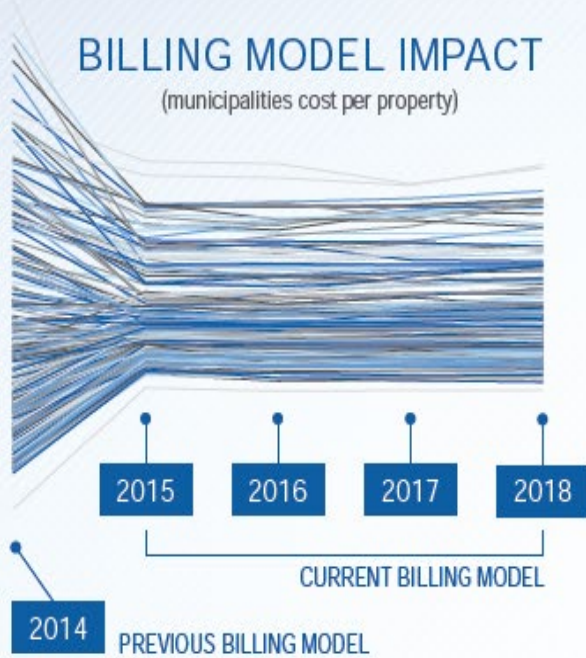
****Municipalities are billed for the portion of detachment, support positions and other direct operating expenses (ODOE) required to meet their service demands



OPP Billing Model

BILLING MODEL IMPACT

(municipalities cost per property)



FAIR



MINISTRY OF COMMUNITY SAFETY AND CORRECTIONAL SERVICES

OTHER ONTARIO GOVERNMENT MINISTRIES

MUNICIPAL PROPERTY ASSESSMENT CORPORATION

MUNICIPAL ASSOCIATIONS

ONTARIO PROVINCIAL POLICE

POLICE SERVICES ACT

OTHER MUNICIPAL-RELATED LEGISLATION

323 ONTARIO MUNICIPALITIES

COMMUNITIES

TRANSPARENT

REACHING OUT

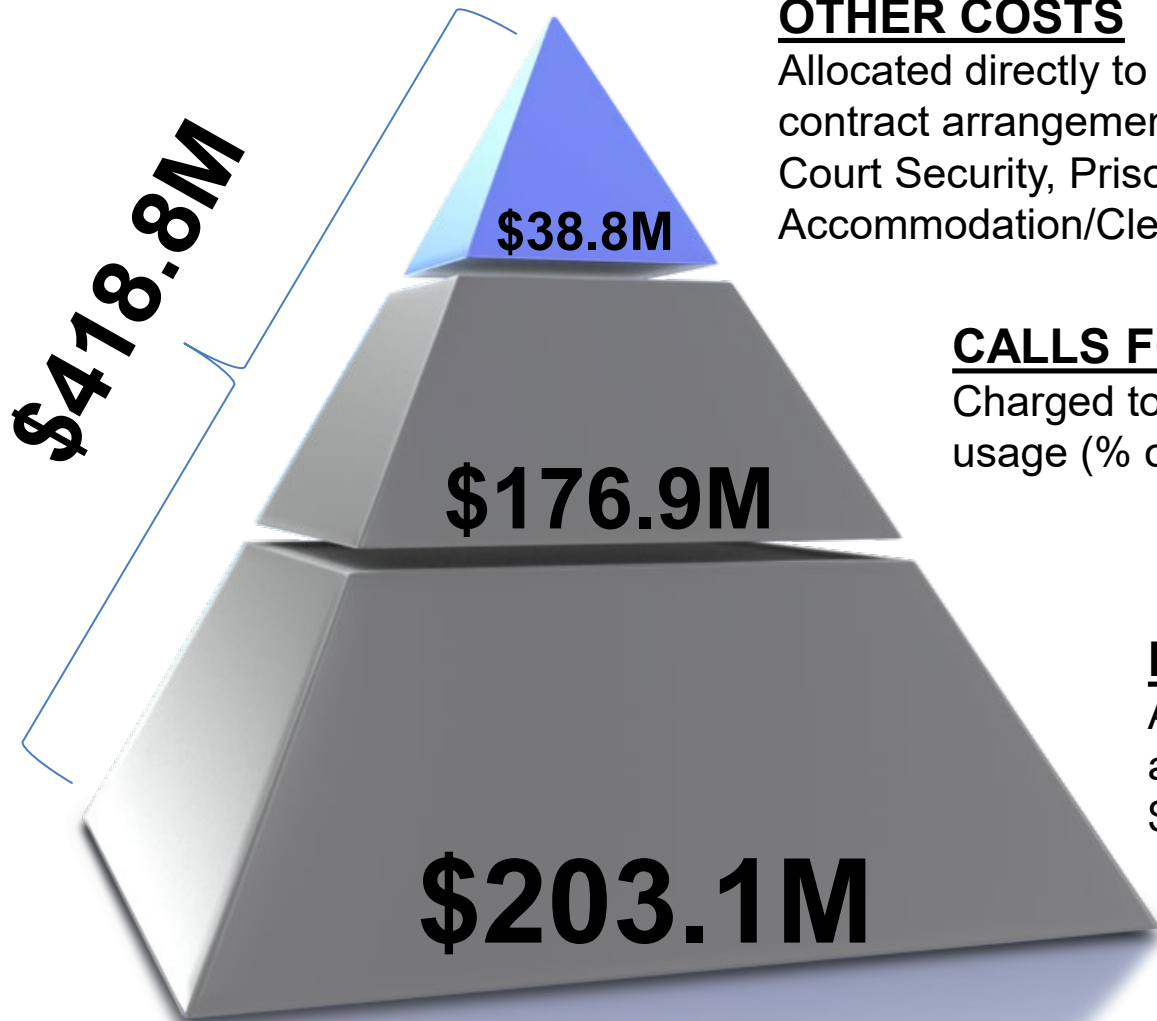
CONFERENCES

WEBINARS

CFS BILLING SUMMARY REPORT

MEETINGS

WWW.OPP.CA/BILLINGMODEL



OTHER COSTS

Allocated directly to municipalities based on contract arrangements and usage, i.e., Overtime, Court Security, Prisoner Transportation, Accommodation/Cleaning and Enhancements.

CALLS FOR SERVICE COST

Charged to municipalities according to their usage (% of provincial calls for service cost)

BASE SERVICE COST

Allocated among municipalities on an equal er property basis
\$172.07 per property

2022 OPP Municipal Cost-Recovery under the Billing Model

Note: Cost net of recoveries for policing services provided to municipalities in a post-amalgamation 3+ years transition contract and O.Reg. 267/14 discount



OPP Municipal Cost Recovery

The billing model is **PROVINCIALY FOCUSED** and divides the majority of municipal policing costs into two categories.

Base Service

Allocate among municipalities on
an equal per-property basis

(households, commercial and industrial properties)

- Legislated activities (e.g., crime prevention, officer availability to respond to emergency calls for service 24 hours a day, general and directed patrol, victim assistance, etc.)
- Proactive policing (e.g., RIDE, traffic safety, community policing, intelligence gathering etc.)
- Officer training and administrative duties
- All Inspector and Staff Sergeant positions

+

Calls for Service

Allocate the costs to municipalities
based on their individual usage level

- Crime calls (assaults, break & enter, mischief, drug offences, etc.)
- Provincial Statutes (Mental Health Act, Trespass to Property Act, landlord/tenant disputes, etc.)
- Motor vehicle collisions (property damage, personal injury, fatal, etc.)
- General calls for service (false alarms, lost property, missing person, etc.)
- Does not include incidents normally generated through proactive policing

Additional Costs

Municipalities billed on their specific usage:

Overtime Court security Cleaning/Caretakers

Accommodations Enhancements Prisoner Transportation*

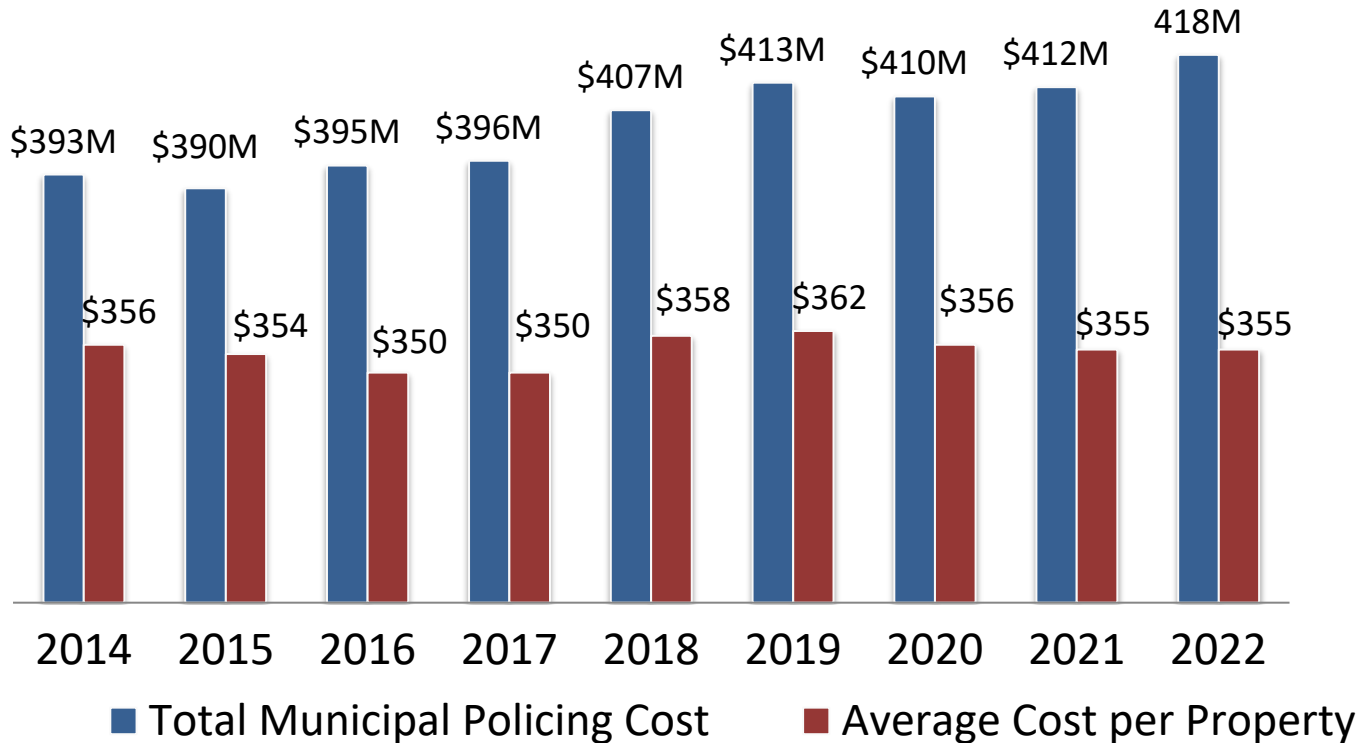
* Prisoner transportation cost is allocated to all municipalities on an equal per property basis.



OPP Municipal Policing Snapshot

Historical Trends (2014-2022)

Since the inception of the billing model in 2015, recoveries have increased at an annualized rate of approximately 1%.



Note: 2014-2020 figures are based on actual and 2020-2021 are estimated costs. All costs are net of recoveries for policing services provided to municipalities in a post-amalgamation 3+ years transition contract and O.Reg. 267/14 discount.



OPP 2022 Calls for Service Billing Summary

The Nation M

Estimated costs for the period January 1 to December 31, 2022

Calls for Service Billing Workgroups	Calls for Service Count					2022 Average Time Standard	Total Weighted Time	% of Total Provincial Weighted Time	2022 Estimated Calls for Service Cost
	2017	2018	2019	2020	Four Year Average				
					A	B	C = A * B		
					Note 1			Note 2	Note 3
Drug Possession	10	8	-	7	6	7.0	44	0.0025%	4,448
Drugs	1	5	1	4	3	55.1	152	0.0087%	15,405
Operational	517	531	467	447	491	3.7	1,815	0.1043%	184,511
Operational 2	353	386	602	212	388	1.3	505	0.0290%	51,314
Other Criminal Code Violation	55	34	27	47	41	7.7	314	0.0180%	31,901
Property Crime Violations	160	166	236	287	212	6.5	1,380	0.0793%	140,263
Statutes & Acts	105	98	104	135	111	3.4	376	0.0216%	38,196
Traffic	149	141	142	156	147	3.5	515	0.0296%	52,308
Violent Criminal Code	101	77	87	71	84	16.1	1,352	0.0777%	137,495
Total	1,451	1,446	1,666	1,366	1,482		6,451	0.3707%	\$655,840
Provincial Totals	Note 4	377,853	398,860	439,328	360,967	394,252	1,740,049	100.0%	\$176,906,037



Sommaire de la facturation des appels de service 2022

Municipalité de La Nation

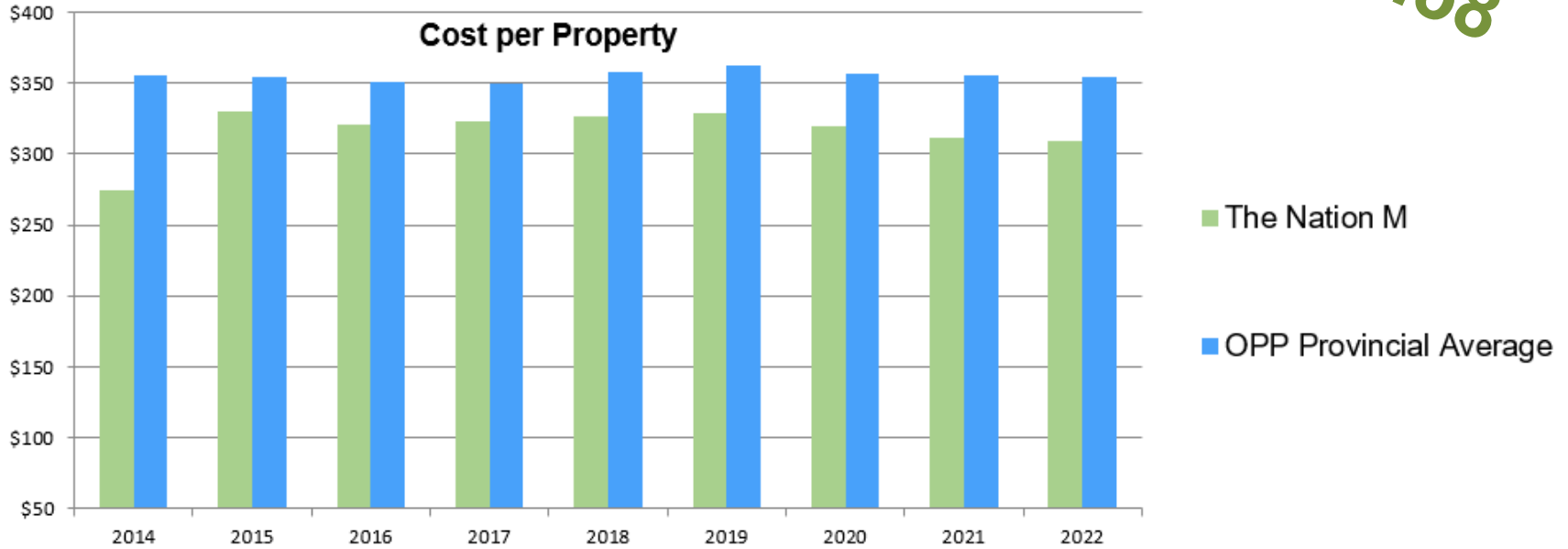
Coût estimatif pour la période du 1er janvier au 31 décembre 2022

Groupes de travail de la facturation de appels de service	Nombre d'appels de service					2022 Moyenne de norme de temps	Temps pondéré total	% du total Temps pondéré provincial	2022 Coût estimé des appels de service
	2017	2018	2020	2020	Moyenne de quatre ans				
	A					B	C = A * B		
	(Note 1)							(Note 2)	(Note 3)
Possession de stupéfiants	10	8	-	7	6	7.0	44	0.0025%	4,448
Stupéfiants	1	5	1	4	3	55.1	152	0.0087%	15,405
Soutien opérationnel	517	531	467	447	491	3.7	1,815	0.1043%	184,511
Soutien opérationnel 2	353	386	602	212	388	1.3	505	0.0290%	51,314
Autres infractions au Code criminel	55	34	27	47	41	7.7	314	0.0180%	31,901
Crimes contre les biens	160	166	236	287	212	6.5	1,380	0.0793%	140,263
Législation	105	98	104	135	111	3.4	376	0.0216%	38,196
Circulation routière	149	141	142	156	147	3.5	515	0.0296%	52,308
Acte de violence selon le Code criminel	101	77	87	71	84	16.1	1,352	0.0777%	137,495
Total	1,451	1,446	1,666	1,366	1,482		6,451	0.3707%	\$655,840
Totaux provinciaux (Note 4)	377,853	398,860	439,328	360,967	394,252		1,740,049	100.0%	\$176,906,037



The Nation Municipality OPP Policing Cost Trends 2015 - 2022

2022 Per Property Cost
\$308.58



Year	Cost Status	Property Count	Total Cost		Year over Year Cost Variance	Cost Per Property		OPP Average Cost per Property
			Before Cap	Capped		Before Cap	Capped	
2015	Reconciled	4,928	\$1,624,494	\$1,547,195		\$330	\$314	\$354
2016	Reconciled	5,166	\$1,657,587	\$1,657,587	2.0%	\$321	\$321	\$350
2017	Reconciled	5,187	\$1,676,713	\$1,676,713	1.2%	\$323	\$323	\$350
2018	Reconciled	5,201	\$1,698,914	\$1,698,914	1.3%	\$327	\$327	\$358
2019	Reconciled	5,220	\$1,717,760	\$1,717,760	1.1%	\$329	\$329	\$362
2020	Reconciled*	5,284	\$1,689,670		-1.6%	\$320		\$356
2021	Estimate*	5,337	\$1,662,253		-1.6%	\$311		\$355
2022	Estimate*	5,389	\$1,662,922		0.0%	\$309		\$355

* 2019 was the final year of the 5 year phase-in period, no caps have been applied after 2019.



OPP 2022 Annual Billing Statement

The Nation M

Estimated costs for the period January 1 to December 31, 2022

Please refer to www.opp.ca for 2022 Municipal Policing Billing General Information summary for further details.

		Cost per Property \$	Total Cost \$
Base Service	Property Counts		
	Household	5,143	
	Commercial and Industrial	246	
	Total Properties	<u>5,389</u>	927,294
		172.07	

Calls for Service	(see summaries)		
	Total all municipalities	176,906,037	
	Municipal portion	0.3707%	121.70
			655,840

Overtime	(see notes)	8.27	44,545
Prisoner Transportation	(per property cost)	1.71	9,215
Accommodation/Cleaning Services	(per property cost)	4.83	26,029
Total 2022 Estimated Cost		308.58	1,662,922

2020 Year-End Adjustment (see summary) 1,171

Grand Total Billing for 2022 **1,664,093**

2022 Monthly Billing Amount 138,674



Relevé annuel de facturation 2022 de l'OPP

Municipalité de La Nation

Coût estimatif pour la période du 1er janvier au 31 décembre 2022

Veillez consulter les Renseignements généraux sur la facturation aux municipalités des services policiers fournis par la Police provinciale (2022) pour de l'information supplémentaire affiché sur Internet, à www.opp.ca.

			Coût par propriété \$	Coût total \$
Services de base	Nombre de propriété			
	Ménages	5,143		
	Propriétés d'affaires (commerciales et industrielles)	246		
	Total des propriétés	<u>5,389</u>	172.07	927,294
Appels de service	(voir le sommaire)			
	Total de toutes les municipalités	176,906,037		
	Portion municipale	0.3707%	121.70	655,840
Heures supplémentaires	(voir les notes)		8.27	44,545
Transport de prisonniers	(coût par propriété)		1.71	9,215
Locaux/Services de nettoyage	(coût par propriété)		4.83	26,029
Coût estimatif total de 2022			308.58	1,662,922
Rajustement de fin d'année de 2020	(voir le sommaire)			1,171
Grand total de facturation pour 2022				1,664,093
Montant de facturation mensuel de 2022				138,674



3 Things to Know about the “New Policing Act”

1. **Community Safety and Policing Act, 2019**

The Comprehensive Ontario Police Services Act, 2019, received Royal Assent on March 26, 2019, but some sections have not yet been proclaimed into force. This act creates the Community Safety and Policing Act, 2019 (CPSA), which will come into force on a date to be determined. When the CPSA and its regulations come into force, it will repeal and replace the current Police Services Act (PSA).

2. **OPP Detachment Boards**

S. 67-71 of the CSPA provide details on the OPP Detachment Boards. When the CSPA comes into force, the PSA will be repealed and the existing s.10 boards will cease to exist. The CSPA will require there to be one or more OPP detachment boards for each detachment of the OPP that provides policing in a municipality or a First Nation reserve, if the regulations allow for it.

3. **OPP S.10 Contracts**

Under the CSPA municipalities policed by the OPP will not have the option to enter into a contract for OPP policing services. Expiring s.10 agreements for OPP policing services will be renewed until the CSPA and its regulations come into force. Further clarification on the transition from s.10 agreements to a “non-contract arrangement” under CSPA for the provision of OPP policing services are to be developed.



Helpful ONLINE Resources

INTERNET

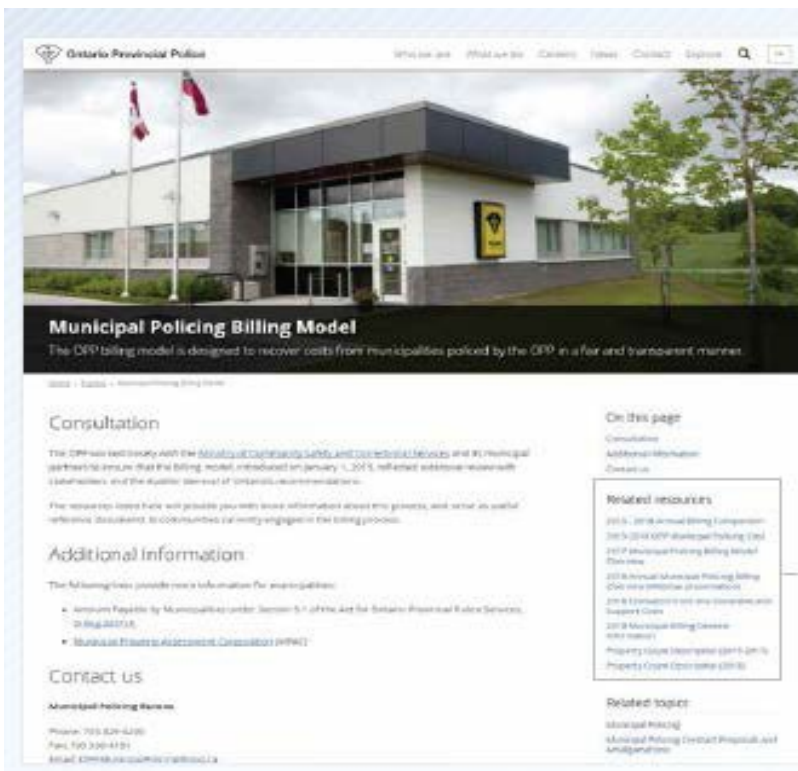
1

www.opp.ca/billingmodel

www.opp.ca/municipalpolicing

www.opp.ca/contractproposals

www.opp.ca/newsbulletins



Related resources

[2015 - 2018 Annual Billing Comparison](#)

[2015-2018 OPP Municipal Policing Cost](#)

[2017 Municipal Policing Billing Model Overview](#)

[2018 Annual Municipal Policing Billing Overview \(Webinar presentation\)](#)

[2018 Estimated Front-line Constable and Support Costs](#)

[2018 Municipal Billing General Information](#)

[Property Count Description \(2015-2017\)](#)

[Property Count Description \(2018\)](#)



QUESTIONS?

Email us: OPP.MunicipalPolicing@opp.ca

Call us: (705) 329-6200

Follow us on Twitter: [@OPP_Mun_Pol](https://twitter.com/OPP_Mun_Pol)

From: AMO Communications <Communicate@amo.on.ca>
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To: Aimée Roy
Subject: AMO Watchfile - September 15, 2022

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September 15, 2022

In This Issue

- Mainstage highlights of AMO 2022 Conference are available to everyone.
- Funding for innovative energy efficiency initiatives.
- MNRF webinar training sessions on *Conservation Authorities Act* .
- Jump start your digital transformation with an e-signature solution.
- Pandemic recovery support for municipal health and safety programs.
- Canoe vendor spotlight: Cub Cadet.
- Blog: A Day in the Life of a Risk Manager.
- Webinar: Understanding electricity and natural gas.
- Over 100 LED projects completed and still counting!
- It's back to school for energy training.
- LAS is going to ORFA's Fall Professional Development Program.
- Investments 101 Workshops - Registration open!
- Careers: Orillia, Windsor, Durham, and Gravenhurst.

AMO Matters

Part of AMO's commitment in providing an in-person only conference was to make the highlights of the AMO 2022 Mainstage available to everyone, free of charge, including those who were not able to attend. You can do so now! Look for the live links in the [AMO Conference Program](#) on the AMO Website, or you can connect directly to [AMO's YouTube channel](#) and watch the videos at any time. Some of the panel discussions are also included on the [website](#) of The Agenda with Steve Paikin highlighting the important partnership between AMO and TVO.

Federal Matters

The Phase 1 RFP deadline for Toward Net-Zero Homes And Communities Project funding through Natural Resources Canada has been extended to September 21, 2022. Find out more [here](#).

Provincial Matters

MNRF is hosting *Conservation Authorities Act* webinars on October 12, 1:30 pm (Phase

1 Regulations Refresher), October 20, 10:00 am (Phase 2 Regulation and Policy Overview) and November 3, 1:30 pm (Phase 2 Regulations for Practitioners involved in CA budgets and municipal levy apportionment). Email ca.office@ontario.ca to register.

Eye on Events

As municipalities move from paper to electronic filing, authentication of files is a critical challenge. On [September 28, 12 pm](#), join AMO's partner, [Notarius](#), and learn how ConsignO Cloud can reduce the signing time of documents and allow anyone to sign legally reliable documents electronically with a phone, a tablet, or a computer.

On September 29, 8:30 am ET, AMO's partner [4S Consulting Services](#) is co-hosting a webinar with the Workplace Safety and Insurance Board (WSIB) on pandemic recovery supports available to municipalities for health and safety programs. Speakers will walk through how you can double the rebate on WSIB premiums and other topics. [Register today](#).

LAS

We're pleased to welcome Cub Cadet to the [Canoe Procurement Group!](#) Mowers, snowblowers, UTVs, tree care equipment, and more. Check out Canoe for your Parks and Recreation equipment needs. [Contact Simon](#) to learn more.

If you're a risk manager, you might feel the frustration of documenting claims on a spreadsheet and having to export and report. [Read our latest blog](#) to help you find a solution in detailing, organizing, reviewing, and exporting such claims.

If you're curious about the direction of the electricity and natural gas markets and how they will affect the LAS energy programs, [register for the October 18 webinar](#). The free one-hour webinar starts at 11 am.

Thirty-four municipalities have used the [LAS Facility Lighting Service](#) to complete over 100 projects, from community centers and municipal offices to long term care homes. Perhaps it's time your municipality check out this program to see how you can benefit? [Contact Christian Tham](#) for a free LED upgrade budget proposal.

Its back-to-school time again! LAS has developed a new energy training [catalogue](#) so you can learn too! Check out the exciting workshops now available to enhance your municipality's energy knowledge. Contact [Christian Tham](#) to book your workshop today.

Registration is now open for ORFA's [Fall Professional Development Program](#). If you plan to attend, be sure to stop by the LAS booth. We have something for everyone in your Parks and Recreation departments.

ONE Investment

Calling municipal finance staff Investment Basics and Beyond workshops are coming to a location near you - Milton, London, Barrie and London. For more details and registration information click on the following [link](#).

Careers

[Manager of Economic Development - City of Orillia](#). Responsible for creating strategies to market and attract new businesses and expanding existing businesses. [Apply online](#)

by September 21.

Chief Administrative Officer - City of Windsor. Responsible for the management of all human, financial and physical resources while providing strategic guidance and advice. Apply online by October 9.

Commissioner, Corporate Services - Region of Durham. Ensures internal and external customers are provided with high quality services/programs, and that policies are consistent with the Corporate Strategic Plan. Apply online by October 10.

Manager of Revenue/ Deputy Treasurer - Town of Gravenhurst. Responsible for the billing, accounting, collection and reporting of property taxes, corporate revenues and receivables. Apply to HumanResources@gravenhurst.ca by September 29.

About AMO

AMO is a non-profit organization representing almost all of Ontario's 444 municipal governments. AMO supports strong and effective municipal government in Ontario and promotes the value of municipal government as a vital and essential component of Ontario's and Canada's political system. Follow [@AMOPolicy](#) on Twitter!

AMO Contacts

AMO Watchfile Tel: 416.971.9856

Conferences/Events

Policy and Funding Programs

LAS Local Authority Services

MEPCO Municipal Employer Pension Centre of Ontario

ONE Investment

Media Inquiries

Municipal Wire, Career/Employment and Council Resolution Distributions

AMO's Partners



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September 22, 2022

In This Issue

- Register for Bill 109 implementation and best practices webinar.
- MNRF webinar training sessions on *Conservation Authorities Act*.
- Jump start your digital transformation with an e-signature solution.
- Pandemic recovery support for municipal health and safety programs.
- Canoe vendor spotlight: Midwest Fire Equipment.
- Investments 101 Workshops - Registration open!
- Have your say on a Net Zero future.
- Ontario's 2022 Cybersecurity Conference.
- Careers: Richmond Hill, Windsor, Simcoe, Niagara Region and Brampton.

AMO Matters

Join AMO for a webinar on Wednesday, October 5 from 12:00 to 1:30 pm to discuss Bill 109 changes, featuring a panel of municipal planners. You can [register here](#).

Provincial Matters

MNRF is hosting *Conservation Authorities Act* webinars on October 12, 1:30 pm (Phase 1 Regulations Refresher), October 20, 10:00 am (Phase 2 Regulation and Policy Overview) and November 3, 1:30 pm (Phase 2 Regulations for Practitioners involved in CA budgets and municipal levy apportionment). Email ca.office@ontario.ca to register.

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today.

LAS

LAS welcomes Midwest Fire Equipment to the Canoe Procurement Group! They're able to supply tankers, pumpers, brush trucks, tactical tenders, and more. Save time and money while keeping your community safe. Contact Simon to learn more.

ONE Investment

Calling municipal finance staff Investment Basics and Beyond workshops are coming to a location near you - Milton, London, Barrie and London. For more details and registration information click on the following link.

Municipal Wire*

Enbridge will be holding several engagement activities, starting in 2023, offering the opportunity to learn about and inform our Integrated Resource Plans (IRP). Sign up now to ensure you are included in future opportunities.

On October 3, join the Government of Ontario for a free, full-day, hybrid conference that focuses on how employees and organizations can best protect themselves from the ever-evolving cyber threats faced in today's digital age. Register now.

Careers

Urban Design/ Heritage Planner - City of Richmond Hill. Ensure that all development and construction affecting heritage resources meets operational exceptions. Apply online by September 30.

Director, Fleet and Facility Development - City of Windsor. Responsible for providing fleet requirements, including capital budget, to meet the needs of the operations department. Apply online by September 30.

Director, Information Technology - City of Windsor. Assisting the organization in lean process reviews and redesigns to support the alignment of business processes to digital solutions and change management activities. Apply online by October 6,

General Manager Social and Community Services - County of Simcoe. Responsible for the effective and efficient management and the planning, organizing, directing, coordinating, and controlling of activities to deliver social and community services. Apply online by October 7.

Waste Management Services Advisor - Niagara Region. Responsible for coordinating programs and activities, related to planning, waste diversion, collection, and waste disposal. Apply online by October 11.

Specialist, Government Relations - City of Brampton. Establishes linkages for the city with opportunities arising from all orders of Government to identify opportunities and priorities. Apply online by September 27.

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Cher supporteur,

Le comité de soutien et le corps de cadets 2804 de Casselman aimeraient vous remercier de votre don en tant que commanditaire de leur levée de fonds annuelle, 2804 CC Dice Run.

La 11^{ème} édition qui a eu lieu le dimanche 29 mai 2022 au Complexe J.R. Brisson de Casselman avait comme mission de remercier tous les travailleurs en santé qui ont œuvré durant la pandémie de Covid-19. La journée a été une réussite avec plus de 390 participants, 30 marchands locaux, 60 + bénévoles, les cadets et *VOTRE SOUTIEN*.



Cette levée de fonds va permettre au corps de cadets 2804 de continuer à développer, chez nos jeunes, le respect, la discipline et le travail d'équipe grâce à des activités stimulantes et des défis excitants.

Veuillez accepter notre certificat de reconnaissance en guise d'appréciation pour votre soutien.

Encore une fois, un grand merci du comité de soutien et des cadets du 2804.



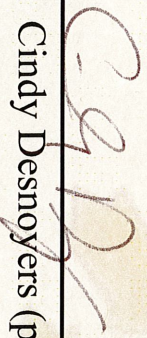
CERTIFICAT DE RECONNAISSANCE

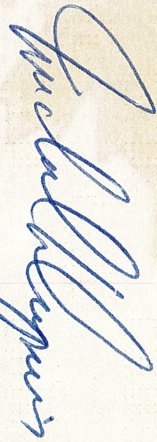
*Le Corps de Cadets 2804 de Casvelman
décerne ce certificat à*

La Municipalité de la Nation

pour son soutien au 2804 CC Dice Run 2022.




Cindy Desnoyers (présidente)


Michel Dupuis (répondant)

Aimée Roy

From: Leadership féminin Prescott-Russell <leadershipfemininpr@gmail.com>
Sent: Wednesday, September 21, 2022 11:08 AM
To: Aimée Roy
Subject: Infolettre SEPTEMBRE - LFPR

[Cliquez ici pour visualiser l'infolettre dans votre navigateur](#)



Place aux initiatives !

Infolettre - Septembre 2022

Notre CA pour la prochaine année !

Le 13 septembre dernier avait lieu l'assemblée générale annuelle de notre organisme. Lors de celle-ci, notre CA de la prochaine année a été constitué. En voici les membres :

Marie-Noëlle Lanthier (présidente), **Estelle Patenaude** (vice-présidente), **Agata Michalska** (secrétaire), **Manon Forget** (trésorière) et des administratrices **Danielle Dorschner**, **Geneviève Thomas**, **Lisa Deacon**, **Aimée Roy** et **Lilia Khodja**.

Merci aux membres du CA qui s'impliquent auprès de LFPR depuis longtemps et bienvenue à celles qui se joignent à nous : Manon et Lilia ! Vos expertises respectives donnent de nouvelles ailes à notre organisme.



Durant notre AGA, nous avons également eu l'opportunité de partager notre **rapport d'activités 2021-2022**. Nous vous invitons à en prendre connaissance **en cliquant ici**.

En poursuivant la lecture de cette infolettre, vous réaliserez que notre équipe travaille d'arrache-pied afin de vous préparer un automne à la hauteur de vos attentes !

- L'équipe de LFPR

NOUVELLES ET ACTUALITÉS

Joignez-vous à nous le 3 octobre prochain...

LFPR a le plaisir de vous inviter au tout premier **Symposium portant sur le leadership des femmes et les barrières systémiques à l'égalité des genres** dans notre région!

Cette invitation s'adresse à tout le monde, hommes, femmes et à toute la diversité de genres, sans discrimination !

Au menu de cette journée inspirante, notons une conférence de **Danièle Sauvageau**, hockeuse et entraîneure bien connue, un **panel** de discussion sur le leadership des femmes en gouvernance, une **formation** sur votre style naturel de leadership et une conférence de la sénatrice **Bernadette Clément**, **ancienne mairesse de Cornwall et première femme noire à être élue à ce poste en Ontario!** Tous les repas sont bien naturellement inclus dans le prix du billet!

Une journée inspirante, instructive, mais aussi un moment pour discuter ensemble des barrières qui subsistent encore dans notre société pour atteindre véritablement l'égalité des genres.

Vous trouverez tous les détails de la journée de même que le lien pour la billetterie en vous rendant au : <https://leadershipfemininpr.ca/>

ÇA M'INTÉRESSE !



Concerté.e.s pour l'égalité

3 OCTOBRE 2022
Le tout premier
Symposium

8 h 30 à 18 h 30
RiverRock Inn, Rockland

sur le leadership féminin et les
barrières systémiques à l'égalité des
genres dans Prescott-Russell.

**Conférences inspirantes,
panel de discussion,
réseautage et plus!**

leadershipfemininpr.ca

Merci à nos partenaires



Femmes et Égalité
des genres Canada

Women and Gender
Equality Canada



Municipalité de
RUSSELL
Township



RIVERROCK

Inn & Conference Centre

LFPR souhaite offrir la possibilité à des jeunes filles et femmes de la région de participer gratuitement au Symposium. Vous connaissez des filles dynamiques ?

Contactez-nous et nous serons heureuses de faire le lien avec leurs établissements scolaires afin de leur permettre de prendre part à cette journée inspirante !





T'ES BRILLANTE, ON LE SAIT !

Et on a besoin de tes idées, de tes opinions, de ton énergie et de ton engagement. Joins-toi à nous lors du premier **Symposium sur le leadership féminin** dans notre région.

Le Symposium aura lieu le lundi 3 octobre prochain, au RiverRock Inn Conference Centre, à Clarence-Rockland, de 8 h à 17 h. C'est gratuit pour toi et les repas sont aussi compris !

Tu pourras écouter nos conférencières invitées, **Danièle Sauvageau** et la sénatrice **Bernadette Clément**, en plus de prendre part à un panel de discussion sur le leadership des filles et des femmes.

Viens découvrir le *Blueprint* de ton engagement communautaire avec **l'Équipe M et Éducation éveillée** et l'importance d'avoir un *mindset* positif ! Ton regard sur la société au féminin est primordial. **TA VOIX COMPTE.**



info : leadershipjeunesseaufeminin@gmail.com

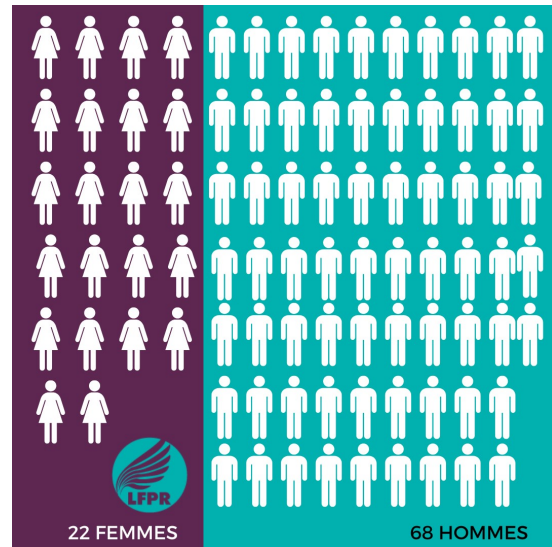


En octobre 2022, visons la parité !

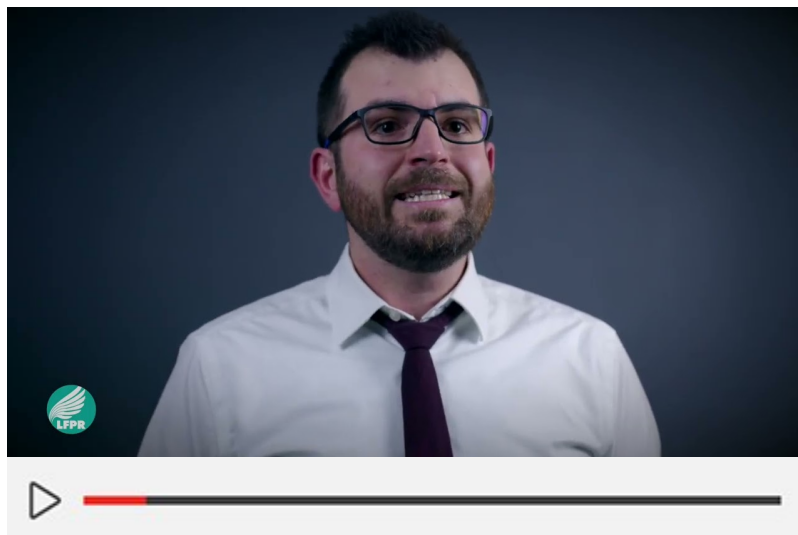
À l'heure actuelle, dans Prescott-Russell, en vue des élections municipales d'octobre prochain, **22 femmes** se sont portées candidates... Contre **68 hommes**. Elles représentent donc seulement **24,4%** de l'ensemble des candidats aux élections.

Cette représentation est beaucoup trop faible par rapport au 51% de la population que représentent les femmes.

Le 24 octobre prochain, votons pour nos candidates féminines. Parce que la voix des femmes compte !



Voici quelques raisons qui démontrent l'importance de la parité en politique municipale



Gardez l'oeil ouvert...

Ouverture prochaine des inscriptions
pour la 1ère cohorte de

**FORMATIONS EN GOUVERNANCE
D'OBNL ET LEADERSHIP FÉMININ**



**PLACES
LIMITÉES**

**GOUVERNANCE
AU FÉMININ**
Toutes en faveur!



 **Discitus**

leadershipfemininpr.ca

**C'est CE SOIR que se déroule la marche des
femmes !**

DE RETOUR

LA MARCHE DES FEMMES PRÉSENTIEL 2022

Venez marcher avec nous dans l'objectif de sensibiliser la population à la violence faite aux femmes.

**21 septembre 2022, 18h
Départ du parc Rodolphe
Latreille, 63 rue Des
Bénévoles, Limoges**



Information
www.centrenovas.ca



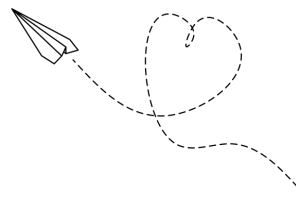
Des nouvelles de vous !

Vous êtes fière de l'une de vos réalisations ? Vous aimeriez reconnaître l'apport d'une femme impliquée dans notre communauté ?

Faites-nous-en part et il nous fera plaisir de partager la bonne nouvelle sur nos réseaux sociaux.

Écrivez-nous à : leadershipfemininpr@gmail.com.
Au plaisir de vous lire !

À propos - Leadership féminin Prescott-Russell (LFPR) est la seule organisation dédiée au leadership féminin en Ontario français. LFPR appuie le développement du leadership d'une diversité de voix féminines afin d'augmenter leur pouvoir d'influence sur l'évolution de la collectivité, vers une société égalitaire. Le mandat de l'organisme s'articule autour de trois piliers d'intervention: Politique au féminin, Gouvernance au féminin et Leadership jeunesse au féminin.



LFPR est fière de recevoir l'appui financier de Femmes et Égalité des genres Canada.






Femmes et Égalité
des genres Canada

Women and Gender
Equality Canada



Devenez membre vous aussi de LFPR!

Votre adhésion vous permettra de soutenir la réalisation de nos projets afin :

-  Renforcer le leadership des jeunes femmes de chez nous
-  Augmenter la représentation des femmes en politique municipale dans Prescott-Russell
-  Accroître la participation des femmes au sein des conseils d'administration de la région

Merci de nous aider à changer le monde, une voix féminine à la fois!

EN SAVOIR PLUS



Courriel envoyé à : ARoy@nationmun.ca

Leadership féminin Prescott-Russell
Concession 7
La Nation (Ontario) | K0B 1N0 | Canada
leadershipfemininpr@gmail.com

[Politique anti-pourriel](#) | [Rapporter un abus](#) | [Vous désabonner](#)





September 21, 2022



Nation Municipality
958 Route 500 West
Casselman, ON K0A 1M0



Attention: Mayor François St. Amour, Municipal Council



On August 22, 2022, the Township of Front of Yonge – a municipality entirely outside the jurisdiction of South Nation Conservation – passed a resolution calling for a meeting of South Nation Conservation to consider enlargement of the jurisdiction of the Authority to include the entire jurisdiction of the Township of Front of Yonge solely and exclusively for the delivery of the provisions of the *Building Code Act* and Building Code related to private sewage systems.



The Township of Front of Yonge Regular Meeting Resolution 08-15 2022 is attached.



South Nation Conservation will host the meeting to consider enlargement on Thursday, September 29, 2022, at 9:00 A.M. at the South Nation Conservation Administrative Office, 38 Victoria Street, Finch, Ontario.



You are receiving this letter in accordance with the notice requirement under Subsection 10 (1.1) of the *Conservation Authorities Act*, R.S.O. 1990, c. C.27.



The South Nation Conservation Board of Directors will consider this matter at the meeting. No action is requirement on your part; however, you are welcome to attend should you wish.



Sincerely,



Carl Bickerdike,
Acting General Manager
South Nation Conservation



21 septembre, 2022



Municipalité de La Nation
958, route 500 Ouest
Casselman, ON K0A 1M0



Attention : Maire François St. Amour, Conseil municipal



Le 22 août, 2022, le Canton de Front of Yonge - une municipalité entièrement à l'extérieure de la juridiction de la Conservation de la Nation Sud – a adopté une résolution demandant une réunion de la Conservation de la Nation Sud afin d'envisager l'élargissement de la zone sur laquelle l'Autorité exerce sa compétence, pour y inclure la totalité de la juridiction du Canton de Front of Yonge et exclusivement pour livrer les dispositions de la *Loi sur le code du bâtiment* et le Code du bâtiment traitant de systèmes d'égouts privés.



La résolution 08-15 2022 de l'assemblée régulière du Canton de Front of Yonge est ci-jointe.



La Conservation de la Nation Sud accueillera la réunion en vue de considérer cet élargissement le jeudi 29 septembre 2022 à 9 heures, au bureau administratif de la Conservation de la Nation Sud, 38, rue Victoria, Finch, Ontario.



Vous recevez cette lettre conformément à l'obligation de préavis prévue au paragraphe 10(1.1) de la Loi sur les offices de protection de la nature, L.R.O. 1990, c. C.27.



Le conseil d'administration de la Conservation de la Nation Sud se penchera sur cette question. Aucune action n'est requise de votre part; cependant, vous êtes invités à y assister si vous le souhaitez.



Cordialement,



Carl Bickerdike,
Directeur général intérimaire
Conservation de la Nation Sud

FRONT OF YONGE TOWNSHIP


CARRIED

DATE: August 22, 2022

MOTION NO: 08-15

MOVED BY: Carson Massey

SECONDED BY: Gail Williams

THAT the Clerk's report regarding Management and Enforcement of Ontario Building Code Part 8 – Private Sewage Systems be received;

AND THAT the Council of the Township of front of Yonge hereby requests that the South Nation River Conservation Authority consider the enlargement of their area of jurisdiction pursuant to section 10.(1) of the Conservation Authorities Act; to include the Township of Front of Yonge, exclusively for the management and enforcement of Part 8 of the Ontario Building Code, with respect to private sewage systems for as long as the Agreement stays in effect.