# TOWNSHIP OF MELANCTHON

# A G E N D A

Thursday, March 16, 2017 - 5:00 p.m.

**1. Call to Order**

**2. Announcements**

**3. Additions/Deletions/Approval of Agenda**

**4. Declaration of Pecuniary Interest and the General Nature Thereof**

**5. Approval of Draft Minutes - March 2, 2017**

**6. Business Arising from Minutes**

1. Response from Dan Bernhard, DWP regarding Parking on Township Roads
2. Information update on By-law Enforcement Services - Town of Shelburne

**7. Point of Privilege or Personal Privilege**

**8. Public Question Period** (Please visit our website under Agenda & Minutes for information on Public Question Period)

**9. <u>Road Business</u>**

1. Recommendations from the Roads Sub-Committee Meeting held on March 14, 2017
2. Other Road Business

**10. <u>Planning Matters</u>**

1. Applications to Permit

**11. <u>Police Services Board Matters</u>**

1. Unfinished Business - Letter from Amanda Graham regarding Inclement Weather and Road Closures

***Community Policing Meeting - Tuesday, June 6th, 2017 at the Horning's Mills Community Hall - 7:00 - 9:00 p.m.***

**12. County Council Update**

**13. Correspondence**

**<u>*Board & Committee Minutes</u>**

1. Shelburne Public Library Board Minutes - December 20, 2016

**<u>* Items for Information Purposes</u>**

1. Memo from Denise Holmes, CAO - Highlights of Bill 68 - Modernizing Municipal Legislation
2. Motion from the Town of Orangeville - Securing Mechanisms for Wheelchairs in Vehicles
3. Letter from the Ministry of Education - Impacts of Pupil Accommodations Review
4. MPAC News - March 2017 (attached is the Industrial Turbines Study 2016 Base Year Study)
5. Letter from MPAC - Assessing Properties in Proximity to Industrial Wind Turbines
6. Motion from the Township of Zorra - Requesting the Premier and Minister of Education to develop policy that allows AED in all schools
7. Motion from the Township of Killaloe-Hagarty-Richards - Proposed Amendments to Ontario Building Code - Change #08-09-03
8. Motion from Thames Centre - Requesting the Premier and Minister of Education to

develop policy that allows AED in all schools

9. Information from the Ministry of Community Safety and Correctional Services - Transportation of Radioactive Materials in Ontario
10. Motion from the Township of McNab/Braeside Proposed Amendments to Ontario Building Code - Change #08-09-03
11. Email from Debra Robinson, Parent Volunteer Autism Ontario-Peel Chapter - Information on Autism Ontario's Raise the Flag Campaign - World Autism Awareness Day is Sunday, April 2, 2017
12. Motion from the Township of Amaranth - Provincial Gas Tax Funds
13. Letter from MPAC - 2017 Municipal Stakeholder Research
14. Letter from the Agriculture, Food and Rural Affairs Appeal Tribunal regarding the appeal of Evan Bearss - McCue Drain Works, Repair and Improvement, 1989
15. Information from the Ministry of Agriculture, Food and Rural Affairs regarding the 2017 Premier's Award for Agri-Food Innovation Excellence Program
16. Information from the Minister of Seniors Affairs regarding the 2017 Senior of the Year Award
17. Letter from the Wellington Dufferin Guelph Health Unit regarding Reduction and Restriction of Local Hookah Establishments
18. NVCA Board Meeting Highlights February 24, 2017
19. GRCA Current - March 2017
20. Melancthon Township Development Charges Yearly Breakdown - 2016
21. Semi Annual Groundwater Monitoring and Sampling Report - 2016 for the Township Landfill Site (as this is a large Report, Appendix A, B & C are not included in the Agenda Package and are available on request)

*** Items for Council Action**

1. Request for Comments from the NEC - D/R/2016-2017/361 (1392119 Ontario Ltd. - Metz)
2. Source Water Protection Funding Agreement Amendment # 3
3. Request from the Dundalk and District Agricultural Society for financial support for the 2017 Fall Fair
4. 2017 Shelburne and District Fire Department Capital Budget
5. 2017 Shelburne and District Fire Department Operating Budget
6. Drainage Engineer's Tender Report on the Petervale Farms Drainage Works

**14. General Business**

1. 2017 Draft Operating and Capital Budget and Report from the Treasurer
2. Notice of Intent to Pass By-laws
    1. By-law to adopt the estimates of all sums required during the year and to strike the rates of taxation and to further provide for penalty and interest in default of payment thereof for the year 2017
    2. Third Reading - Petervale Farms Drainage Works By-law 6-2017
3. New/Other Business/Additions
    1. Connect to Innovate Program - Packetworks is looking for a Letter of Support from Melancthon Council for this initiative
    2. NDCC - Board of Management Mandate
4. Unfinished Business
    1. Motion to Support the motion of the United Township's of Head, Clara & Maria regarding Changes to the Building Code (regarding septic tank pumping)
    2. Legacy Project - Corbetton Park - County of Dufferin 150 Application

**15. Delegations**

**16. Closed Session (if required)**

1. Adoption of Draft Minutes - March 2, 2017
2. Business Arising from Minutes
3. Personal matters about an identifiable individual, including municipal or local board employees - Administration and Finance Assistant Position

**17. Third Reading of By-laws**

**18. Notice of Motion**

**19. Confirmation By-law**

**20. Adjournment and Date of Next Meeting - Thursday, April 6, 2017 - 5:00 p.m.**

## Denise Holmes

**From:** Dan Bernhard <dan.bernhard@clypg.ca>
**Sent:** Friday, March 10, 2017 10:59 AM
**To:** 'Denise Holmes'
**Subject:** RE: Letter - Parking on Township Roads

Denise,
We will do our best to accommodate your request. However, in the event that emergency work is required and it is not practicable to do otherwise, Dufferin Wind will be required park on the roadway, employing a safe traffic plan, including safety cones, signage, and flashing lights. We will most certainly cooperate with the local Provincial Police, township maintenance and snow removal equipment, and not impede their activities to the best of our ability.

**Dan Bernhard**
Wind Farm Site Manager
705357 County Road 21, Melancthon, Ontario L9V 2A3
w. 519-925-5599
dan.bernhard@clypg.ca
www.dufferinwindpower.ca

DUFFERIN WIND POWER

Please consider the environment before printing this email

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**From:** Denise Holmes [mailto:dholmes@melancthontownship.ca]
**Sent:** March-08-17 11:03 AM
**To:** 'Dan Bernhard' <dan.bernhard@clypg.ca>
**Subject:** Letter - Parking on Township Roads

Hi Dan,

Please see attached letter.

Should you have any questions, please don't hesitate to contact me.

Thanks.

Regards,

*Denise Holmes*

Denise B. Holmes, AMCT | Chief Administrative Officer/Clerk | Township of Melancthon |
dholmes@melancthontownship.ca | PH: 519-925-5525 ext 101 | FX: 519-925-1110 | www.melancthontownship.ca |



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BAFM MAR 16 2017

***APPLICATIONS TO PERMIT FOR APPROVAL***
***MARCH 16, 2017 COUNCIL MEETING***

| *PROPERTY OWNER* | *PROPERTY DESCRIPTION* | *TYPE OF STRUCTURE* | *DOLLAR VALUE* | *D.C.'s* | *COMMENTS* |
|---|---|---|---|---|---|
| 2066390 Ontario Inc. (Bretton Estates)<br>Applicant: Greg Patton | Lot 21, Plan 7M-48<br>16 Rutledge Heights | Single Family Dwelling<br>3,736 square feet | $280,000.00 | Yes | |
| Ken and Nancy Fryer | West Part of Lots 12 & 13, Concession 4 OS - RP7-R2779 Parts 1 & 3 | 1,747 square feet | $452,220.73 | No | No D.C.'s as this is a replacement dwelling. Mr. and Mrs. Fryer wish to remain living in the existing house while they are building the new one. An Agreement will be executed and a $5,000.00 security deposit received before the approval is released. |

On April 7, 2016, Council approved an application for a new dwelling for Steve Martin of the East Part of Lot 25, Concession 2 OS. Mr. Martin entered into an Agreement with the Township to allow the existing dwelling to remain on the property while he was builidng his new home. Mr. Martin has since been in contact with the Township about retaining the addition on the farmhouse to be used as a garage for storage. This has been forwarded to our Planning Consultant and he has no issues allowing part demolition so long as Mr. Martin enters into another agreement with the Township for this purpose.

*Minutes for Shelburne Public Library Board Meeting*
***Tuesday, December 20, 2016***

| | | | |
|---|---|---|---|
| **Present:** | Geoff Dunlop | Larry Haskell | Laurita Townsend |
| | Erika Ulch | Dave Besley | Gail Little |
| | Janet Horner | Sharon Martin | Harry Allen |

**Also Present:** Rose Dotten, Head Librarian /CEO

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Chair Dunlop called the meeting to order at 8:00 P.M.

**Motion 51-16 S. Martin, G. Little**
Be it resolved that we approve the agenda of the board meeting dated December 20, 2016.
**Carried**

**Motion 52 -16 G. Little, H. Allen**
Be it resolved that we approve the minutes of the board meeting dated November 15, 2016.
**Carried**

**Financial Reports:**

**Motion 53 -16 H. Allen, J. Horner**
Be it resolved that we approve the Accounts Payable Register for November, 2016 with invoices and payments in the amount of $21,948.47.
**Carried**

**CEO/ Head Librarian's Report:**

- **Statistics**
  You will see from the statistics for November that statistics are still higher than last year for the month. We are looking at new children's programs for the New Year and hope that will boost the circulation as that is one area where circulation will spike.

- **Pine River Book Club**
  The Pine River Book Club held their December 14, 2016, meeting here at the Library. Both Jade Noble and Emily Sedgwick made presentations about our Electronic resources and new resources that we have. The members had a social time as well as their meeting and loved the feeling of being surrounded by Books! We received a wonderful note of thanks and appreciation.

- **Library – Promotions**
  - The Board suggested some adaptations or changes that we might look at with regard to our KOHA circulation system – emails such as "your library card is expiring; would you like to renew?" etc.

- E-blasts with a library newsletter or upcoming library events. Again this is a privacy issue which requires patrons' permission to send to them. We are addressing this with all our new patrons and updates/renewals to accounts.

- A suggestion was also made to look at a Strategic Planning session and we can follow up in the new year

**Correspondence**

- **Township of Amaranth** – Sent copy of Council resolution supporting the 2017 Shelburne Public Library Draft Budget
- **Town of Mono** – Sent copy of Council resolution accepting the 2017 Shelburne Public Library Budget
- **Cechet family** – a thank you for the support the Senior receives in having books delivered to her home by our Outreach volunteer, Anne Crowder. They also donated $20.00 in the Library name to plates for children. A very nice recognition for the hard work and caring of our volunteers.
- **Pine River Book Club** – a very special thank you and appreciation as noted previously.

**New Business**

- **Motion required for transfers from Reserves**

**Motion 54 -16 S. Martin, H. Allen**

Be it resolved that we transfer the following amounts as year-end motions:

1. To transfer all donations received up to December 31, 2016 to reserve funds as follows:
   (a) To collections reserve:
      a. donations for collections,
      b. in memoriam unspecified donations,
      c. silent auctions, proceeds
      d. other donations
   *(b)* To special projects reserve, $2480 from special projects donations
   (c) To building fund reserve, donations received for building project accounts

2. Transfer from Special Projects Reserve, $3240.18 for
   a. fireplace installation ($760.18),
   b. student wage subsidy ($1280),
   c. and web page ($1000)

3. Transfer **from** collections reserve the amount in excess of the budgeted expenditure of $45,000 as of December 31 2016.

4. Transfer from Building reserve fund $1,039.09 for parking lot expenses and thermostat guards.

5. That the Board direct funds as follows:

a. If there is a surplus that it be transferred into the Operating Reserve.
b. If there is a deficit that it be transferred from Operating Reserve.

**Carried**

- **Silent Auction and Book Sale held Saturday, November 26, 2016**

  Rose informed the Board that the annual fundraiser for the Library, the Silent Auction, together with the Book Sale that was held on Saturday, November 26, 2016, was a huge success with approximately $3,864.00 received.

- **Meeting with Amaranth Council** – at the request of Amaranth Council, Rose Dotten (CEO) and Gord Gallaugher, Treasurer, met with the Council. The two items under discussion were a quick review of the 2017 Budget and the question as to the implications for future funding now that Mulmur Township has withdrawn as a member of the Board. This is of concern to the Board as well and Council was reassured that for the next year, the budget would not be affected.

- **Report re Auditors Consultations** – this was tabled for a future meeting with the hope that Carol Sweeney, Treasurer, Town of Shelburne might be present to give us some advice and thoughts on the matter.

- **Year-end staff bonuses** – We have a very strong and dedicated team working to support the library and the community and the Board wanted to recognize their invaluable commitment through a year-end bonus.

**Motion 55-16 D. Besley, E. Ulch**
Be it resolved that the Board approves a year-end bonus of $100 for regular staff and $50 for other staff members at the discretion of the CEO.

**In-Camera Session:** Not required

**Motion 56-16 L. Haskell, J. Horner**
That we now adjourn at 8:52 p.m., to meet again January 17, 2016, at 7pm.

**Carried**

*The Corporation of*

***THE TOWNSHIP OF MELANCTHON***

*157101 Hwy. 10, Melancthon, Ontario, L9V 2E6*

*Telephone - (519) 925-5525*
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**CORPORATION OF THE TOWNSHIP OF MELANCTHON**

**MEMORANDUM**

**TO:** **MAYOR WHITE AND MEMBERS OF COUNCIL**

**FROM:** **DENISE HOLMES, CAO/CLERK**

**SUBJECT:** **HIGHLIGHTS OF BILL 68 - MODERNIZING MUNICIPAL LEGISLATION**

**DATE:** **MARCH 8, 2017**

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At the meeting of Council held on February 16, 2017, Council reviewed a letter from Sylvia Jones, MPP regarding Bill 68, *Modernizing Ontario's Municipal Legislation Act, 2016.*

In her letter, MPP Jones advised that the second reading debate would be resuming in February when the Legislature returned and she was requesting input on this legislation to ensure that our concerns were heard at the Provincial level. As a result, Council requested further information on the impacts of Bill 68.

I am attaching to this memo, information that has come in from AMO summarizing the proposed changes to the *Municipal Act, Municipal Conflict of Interest Act, Municipal Elections Act* as well as several other Acts under this proposed legislation. I am also attaching a presentation deck received from the Township's Municipal Adviser from the Ministry of Municipal Affairs.

INFO 1
MAR 16 2017

Ontario
LEGISLATIVE
ASSEMBLY

RECEIVED
JAN 30 2017

**Sylvia Jones, MPP**
Dufferin-Caledon

244 Broadway
Orangeville, Ontario
L9W 1K5

Tel. (519) 941-7751
Fax (519) 941-3246

12596 Regional Road 50
Bolton, Ontario
L7E 1T6

Tel. (905) 951-9382
Fax (905) 951-1807

1-800-265-1603
E-mail: sylvia.jonesco@pc.ola.org

January 26th, 2016

Mayor Darren White and Council
Township of Melancthon
157101 Highway 10
Melancthon, ON
L9V 2E6

Dear Mayor White and Council,

I am contacting you because I want your input on Bill 68, *Modernizing Ontario's Municipal Legislation Act, 2016*. You are no doubt aware that the Ontario government introduced legislation in November 2016 which proposed a variety of changes to the municipal government including: changing the contribution limits for candidates and third party advertisers; electronic participation in council meetings; requiring municipalities to have an integrity commissioner and a registry of conflicts of interest. Second reading debate will resume in February when the Ontario legislature returns.

Hearing your input on this piece of legislation will help to ensure that your concerns and suggestions are heard at the provincial level as we debate and prepare amendments.

Sincerely,

Sylvia Jones, MPP
Dufferin-Caledon

INFO 7 - FEB 16 2017

**Denise Holmes**

**From:** AMO Communications <communicate@amo.on.ca>
**Sent:** Wednesday, March 08, 2017 4:05 PM
**To:** dholmes@melancthontownship.ca
**Subject:** AMO Policy Update - Highlights of Bill 68: Modernizing Municipal Legislation

March 8, 2017

# Highlights of Bill 68 – Modernizing Municipal Legislation

## Proposed Changes to *Municipal Act* (MA), *Municipal Conflict of Interest Act* (MCIA), *Municipal Elections Act* (MEA) and several other Acts.

**Bill 68 Status:**

With the legislature back in session, the House debate on the Bill has resumed. Timing for the Standing Committee hearing could be this month, earlier than previously anticipated. AMO will complete its request for amendments shortly. Some proposed changes are welcome and others are problematic from a policy or implementation lens. We will be asking legislators to make certain that any changes are clear, fair, and do not generate unintended consequences.

**Bill 68 Content: Some highlights follow:**

*Proposed Integrity Commissioner (IC) Regime*:

The most significant proposal is to the authority and related provisions of a new and greatly expanded municipal Integrity Commissioner (IC) regime. It is to apply to all municipal councils and local boards in Ontario. This part of the Bill provides the most significant challenges.

The Bill's IC accountability framework treats municipal governments and its local boards in a manner that is in stark contrast to the provincial government's own integrity regime. The latter is narrower – limited to MPP complaints of another MPP, current and former public servants, and staff in MPP offices. Like that regime, members of council and local boards can seek advice on a matter from a municipal IC for matters related to the *Municipal Conflict of Interest Act* (MCIA) and municipal code of conduct. Codes of Conduct for all councils and local boards will be mandatory across Ontario.

AMO believes that the intent of providing other recourses besides the courts is worthy. However, the proposed IC regime goes too far, too fast. It brings an untried complexity that could result in unintended consequences and costs that will be difficult to determine let alone manage.

In making the IC regime mandatory for all municipal governments and local boards, the following are some of the key challenges identified with the Bill:

- Its application to members of all local boards (even those without decision-making authority and those without a council representative on them) may dampen the interest of citizens willing to join local boards, which would be an unfortunate outcome. Educating and training these boards is no small task based on the experience of the introduction of closed meeting investigators.
- Any "person" anywhere can make a code of conduct or MCIA complaint whether they are an elector or not and whether or not they are doing business with the municipal government or its boards which makes the administration such as *Municipal Freedom of Information and Protection of Privacy Act* (MFIPPA) and budgeting extremely unpredictable;
- MCIA sets out principles of the duties of members' councils and local boards but it is silent on the duties of complainant nor is there any real onus on complainants;
- Where there are joint service boards, it is unclear which municipal IC has jurisdiction or how it is to be determined and other rules applied;
- Are ICs in effect 'officers' of the municipal government – similar to provision that a municipal clerk is a designated position in the *Municipal Act*;
- It is unclear whether the authority to impose penalties could be delegated by council or local board to the IC and should there be a greater range of penalties at this stage of the process in light of the greater range of penalties available to a judge should a matter end up in the courts; and
- Determining how to have an IC (e.g., own, shared, functional relationships; budget requirements; administration set up; managing MFIPPA, etc.) is more complex than the mandatory closed meeting investigator system and will require at least 18 months before proclamation.

*Meetings:*

- The proposed definition of a meeting is welcome and should put to end the inconsistency that has been used by office of the Ontario Ombudsman and other closed meeting investigators;
- Three new exceptions to resolve some of the difficulties of the original framework but will require amendment. For example, the Province or agencies of the Crown may supply confidential information and, municipal governments and municipal share corporations should be added to that list as they can supply another municipal government or entity with confidential information;
- Proposed authority for each council to decide locally whether or not it wants to adopt a policy on electronic meetings and the related rules except that a person joining electronically cannot be counted for quorum; and
- Temporary replacement at an upper tier meeting where a lower tier councillor is to be absent is helpful but could benefit from the alternate being designated for a period of time rather than sporadically so there is some knowledge of the upper tier's procedures and other policies.

*A few other matters:*

- Working with the Municipal Finance Officers Association (MFOA), we want to see that all municipal governments can benefit from improved investment authority offered by a prudent investor standard approach, done in a way that doesn't create new internal administration for municipal governments;
- Proposal to move council start of term to November 15 to help manage some of the unintended consequences of a longer period between the now earlier election date of October and term of council;
- Proposal to put a limit on 'self funding' election campaigns;
- Clarify that municipal bylaws can have effect in areas under conservation authorities and clear authority to regulate advertising devices; and
- All councils to develop policies related to council-employee relationships; also pregnancy and parental leave of council members.

This is the link to Bill 68, Modernizing Ontario's Municipal Legislation Act, 2017 and to a chart, Bill 68: Summary of Key Provincial Proposals, that summarizes the Bill's proposed changes.

**AMO Contact:** Pat Vanini, Executive Director, E-Mail: pvanini@amo.on.ca, 416-971-9856 ext. 316.

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## Denise Holmes

**From:** Fahey, Sean (MMA/MHO) <Sean.Fahey@ontario.ca>
**Sent:** Wednesday, March 08, 2017 4:20 PM
**To:** Undisclosed recipients:
**Subject:** Bill 68 (MOMLA) Deck & Election Dates
**Attachments:** 2017-02-17 MOMLA Overview.pdf

As promised in previous meetings, please find attached the province's presentation deck on Bill 68 (MOMLA). Additionally, with the approach of the 2018 municipal elections and the recent amendments to the Municipal Elections Act, 1996 and the Municipal Act, 2001, I thought a few reminders might not go amiss.

If your municipality wishes to consider the ranked ballot option you will need to ensure that you have the appropriate by-law in place by May 1st, 2017. That requires an open house and public meeting before the by-law is passed, so if you want to explore the ranked ballot option, time is of the essence.

If you are using or planning to use alternative voting and vote counting (such as internet, telephone, vote-by-mail, tabulators etc.), you need to ensure that your enabling by-law is effective for the 2018 municipal election and is passed not later than May 1st, 2017. Clerk's policies for the use of alternative voting and vote counting will need to be in place not later than December 31st, 2017.

Other changes, such as ward boundary adjustments and council composition will need to be completed by December 31st, 2017 to have effect for the 2018 municipal election. Remember that in the case of ward boundary adjustments, there is a possibility of an appeal to the Ontario Municipal Board, therefore an Ontario Municipal Board hearing and a decision on an appeal will need to be completed by the OMB prior to December 31, 2017.

If you have any questions, please feel free to contact me.

Thank you,

**Sean Fahey**
Municipal Advisor
Municipal Services Office – Central Ontario | Municipal Services Division
Ministry of Municipal Affairs (MMA) | Ministry of Housing (MHO)
777 Bay St., 13th Floor | Toronto ON | M5G 2E5
T: 416.585.6352
Email: sean.fahey@ontario.ca


# Bill 68 – The Proposed *Modernizing Ontario's Municipal Legislation Act, 2016* (MOMLA)

# Scope of Presentation

- The proposed *Modernizing Ontario's Municipal Legislation Act, 2016* (Bill 68) is subject to the approval of the legislature.
- This presentation is intended serve as a summary and be a general aid to understanding the key proposals in Bill 68. It does not include all the details of the Bill.
- For more information about Bill 68, please refer to the proposed legislation at ontla.on.ca.

# Review

- MOMLA proposes amendments to the *Municipal Act, 2001*, *City of Toronto Act, 2006* and *Municipal Conflict of Interest Act*, to (1) enhance municipal accountability and transparency, (2) promote municipal financial sustainability; and (3) help ensure responsive and flexible municipal governments.
- Amendments are also proposed to other acts, such as the *Building Code Act, 1992* and *Planning Act.*
- There is a legislative requirement to initiate a review of the *Municipal Act, 2001* and *City of Toronto Act, 2006* within five years of the previous review.
- Regular review helps to ensure municipalities have the powers and flexibility they need to effectively and creatively provide services to their communities.
- There is no legislative review requirement for Municipal Conflict of Interest Act, which was last substantially amended in 1983.

# Consultation

- The government launched a consultation on the review, which ran for 149 days from June 5, 2015 until October 31, 2015. The review received approximately 360 responses from the online consultation, including councils, clerks, municipal stakeholders and members of the public.
- In person consultations were held with municipal administrators and some public groups. MMA consulted with key stakeholders.
- The Ministry held regular meetings with the Association of Municipalities of Ontario (AMO) and the City of Toronto as part of the Memorandum of Understanding process.
- Other key stakeholders consulted include the Association of Municipal Managers, Clerks and Treasurers of Ontario (AMCTO), Ontario Municipal Tax and Revenue Association (OMTRA) and the Municipal Finance Officers' Association of Ontario (MFOA).
- All feedback received has been considered as part of the review.

# Key Themes

The key themes of the proposed *Modernizing Ontario's Municipal Legislation Act, 2016* are:

1. Accountability and Transparency
2. Municipal Financial Sustainability
3. Responsible and Flexible Municipal Government

The subsequent slides will set out key legislative proposals included in the *Modernizing Ontario's Municipal Legislation Act, 2016*.

# Accountability and Transparency Proposals

# Accountability and Transparency Proposals

**Codes of Conduct**

- Would require municipalities to establish codes of conduct for members of council and local boards.
- Would provide the Minister of Municipal Affairs with authority to make regulations setting out one or more subject matters required to be included in a code of conduct.

**Integrity Commissioners**

- Would require that municipalities provide access to an integrity commissioner
- Would require every municipality to ensure that all integrity commissioner responsibilities be provided by an integrity commissioner
    - Municipalities would have flexibility, including appointing an integrity commissioner, making arrangements for integrity commissioner responsibilities to be provided by an integrity commissioner of another municipality, or a combination.

# Accountability and Transparency Proposals

**Integrity Commissioner – Mandatory Range of Responsibilities**

Each municipality would be required to make arrangements to provide for integrity commissioner coverage for all of the following responsibilities:

- The application to members of council and members of local boards of the municipality of:
  - the local codes of conduct
  - local rules governing the ethical behavior of the members
  - key sections of the *Municipal Conflict of Interest Act* (MCIA)
- Conducting inquiries on his or her own initiative for MCIA and code of conduct matters (in addition to responding to complaints)
- Providing advice to members of councils and local boards respecting their obligations under 1) the local code of conduct applicable to the members, 2) the local ethical behavior procedures, rules or policies governing the members, and 3) the MCIA
- Providing educational information to the public, the municipality and members of council and local boards about local codes of conduct and MCIA.

# Accountability and Transparency Proposals

**Integrity Commissioner – Powers: Municipal Conflict of Interest Act Matters**

- An integrity commissioner would have new powers regarding MCIA matters, including to:
  - investigate a complaint from any person concerning an alleged contravention of certain sections of the MCIA
  - conduct his or her own investigation of whether a member has contravened the MCIA
- After completing an investigation, an integrity commissioner might apply to a judge under the MCIA if he or she considers it appropriate, for a determination as to whether the member has contravened the MCIA.
- If after investigating an MCIA complaint an integrity commissioner decided not to apply to a judge, the person making the complaint might do so.

Note

- A complainant might choose to pursue an MCIA complaint directly through the courts rather than through an integrity commissioner.

# Accountability and Transparency Proposals

**Municipal Conflict of Interest Act**

- Principles
  - Proposed amendments would set out in the MCIA a list of principles endorsed by the Province of Ontario in relation to the duties of members of councils and of local boards.

- Influence
  - Prohibit a member from using his or her office to attempt to influence any decision or recommendation being considered by municipal or local board employees and persons who are acting on delegated authority from council, if the member has a pecuniary interest in the matter (subject to the exceptions set out in the Act).

- Consideration of Code of Conduct Penalty
  - Generally, a member may participate in a meeting (but could not vote) where the matter under consideration is whether to impose a potential code of conduct penalty of suspending the member's pay.

# Accountability and Transparency Proposals

**Municipal Conflict of Interest Act**

- Written Disclosure of Interest
  - At a meeting at which a member discloses a pecuniary interest, amendments would require the member to file a written statement of the member's interest at the meeting, or as soon as possible afterwards.

- Registry
  - Amendments would require that municipalities and local boards establish and maintain a registry of statements and declarations of interests of members. The registry would be made available for public inspection.

# Accountability and Transparency Proposals

**Municipal Conflict of Interest Act (cont.)**

- Flexible Penalties
  - Proposed amendments would provide that if a judge determines that a contravention occurred, the judge may do any or all of the following:
    - Reprimand the member or former member;
    - Suspend the member's remuneration for a period up to 90 days;
    - Declare the member's seat vacant;
    - Disqualify the member or former member during a period of not more than seven years; and/or
    - Require the member or former member to make restitution.

# Accountability and Transparency Proposals

**Open Meetings**

- Definition of Meeting
  - Open meeting provisions would apply to meetings where a quorum of members is present and where members discuss or otherwise deal with a matter in a way that materially advances the business or decision-making of the relevant council, local board or committee.

- Provide Additional Discretionary Open Meeting Exceptions
  - Information explicitly supplied in confidence to a municipality or local board by Canada, a province or territory or a Crown agency;
  - Certain third party information supplied in confidence to a municipality or local board;
  - Trade secret or financial, commercial, scientific or technical information that belongs to the municipality or local board and has monetary value or potential monetary value; or
  - A position, plan, procedure, criteria or instruction to be applied to any negotiations by or on behalf of the municipality or local board.

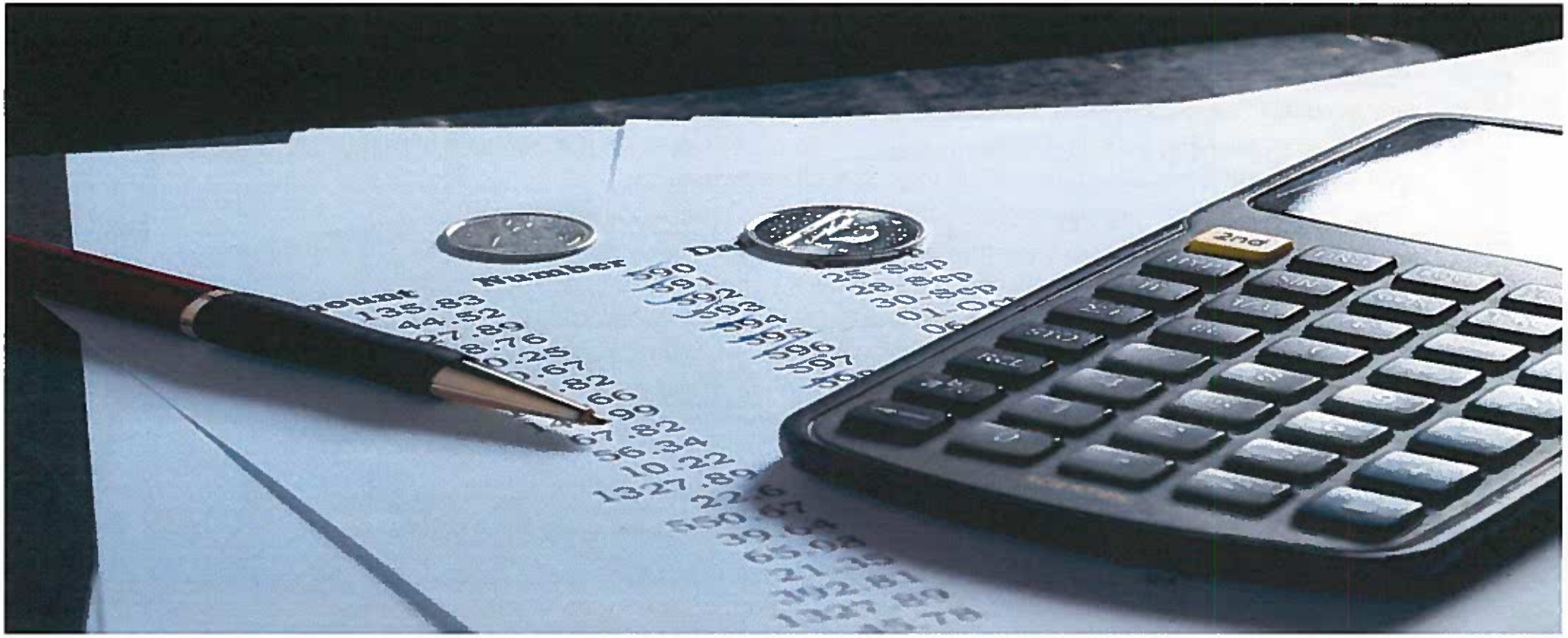
# Accountability and Transparency Proposals

**Open Meetings (cont.)**

- Electronic Meetings
  - Municipal Act: Allow municipal councils and certain local boards to provide for electronic participation by members at council, local board and committee meetings that are open to the public, provided that electronic participants are not counted for quorum purposes.
  - City of Toronto Act: Proposed amendment to existing electronic participation framework respecting council meetings, would allow council and certain local boards to also provide for electronic participation by members at local board and committee meetings

- Report Publicly Regarding Meeting Investigations
  - Require a municipality or local board to pass a resolution stating how it intends to address a report provided by a meeting investigator, where the investigator reports his or her opinion that a meeting has been closed contrary to the open meetings provisions of the relevant Act.

# Municipal Financial Sustainability Proposals



# Municipal Financial Sustainability Proposals

**Prudent Investor Standard**

- Enable a municipality that meets certain requirements to invest money that it does not require immediately in any security in accordance with a prudent investor standard and a regulation.
- Require a municipality investing money under this standard to exercise the care, skill, diligence and judgement that a prudent investor would exercise in making such an investment.
- Require an eligible municipality to pass a by-law to opt into prudent investing.
- Once a municipality has opted into prudent investing, it would not be able to opt out unless a regulation is passed permitting it to invest again only in accordance with the prescribed list of securities.
- Provide the Lieutenant Governor in Council with authority to make regulations governing the investment of money by a municipality under the prudent investor standard, including with respect to transitional matters and in relation to the investment of money by two or more municipalities, acting as a group.

**Small Business Programs**

- Remove the requirement to obtain approval from the Minister of Municipal Affairs before a municipality establishes a small business program, and replace that provision with a regulation making power.

# Municipal Financial Sustainability Proposals

**Forfeited Corporate Property**

- Would provide municipalities with authority to initiate an expedited tax sale of properties that have vested in the Crown because of the dissolution of a corporation, to facilitate bringing such lands into productive use more quickly.

**Municipal Tax Sales**

- Would reduce the time that property taxes have to be owing before a municipality can start a tax sale of the property, from 3 years to 2 years.
- Would allow municipalities to enter into an extension with any of the owners of the property.

**Property Tax Collection and Administration**

- Various amendments to improve property tax collection and administration provisions generally. For example, the proposed amendments address electronic delivery of property tax bills and broadening the range of fees and charges that can be added to the tax roll.

# Responsive and Flexible Municipal Government Proposals

# Responsive and Flexible Municipal Government Proposals

**Climate Change**

- Clarify that existing broad powers include the power to pass by-laws respecting climate change.
- Provide municipalities with additional powers to pass by-laws respecting the protection and conservation of the environment in accordance with regulations, including powers to require green roofs or alternative roof surfaces in circumstances specified by the Building Code and once standards have been established in the Building Code.
- Require municipalities to adopt a policy with respect to the manner in which the municipality will protect and enhance the tree canopy and natural vegetation in the municipality.
- Clarify that municipalities may provide for or participate in long-term planning for energy use in the municipality.

**Integrated Planning for Service Delivery**

- Give the Minister regulation-making authority to prescribe actions that municipalities must take to support local integrated planning.
- This proposed amendment aligns with the government's commitment to implement the Community Hubs *Strategic Framework & Action Plan's* recommendation to "*require integrated planning to ensure client-focused service delivery regardless of jurisdictional boundaries.*"

# Responsive and Flexible Municipal Government Proposals

**Regional Council Composition**

- Repeal the requirement for a Minister's regulation under the *Municipal Act, 2001* to authorize a regional municipality to pass a by-law to change its council composition.
- Require that regional municipalities review the number of members of their council that represent their lower-tier municipalities following every second municipal election, starting after the 2018 municipal election.
- Provide the Minister of Municipal Affairs with the power to make a regulation changing a regional municipality's council composition if a regional municipality is unable to come to a local decision within two years following every second municipal election starting after the 2018 election.

**Temporary Replacements on Upper-tier Council**

- Allow a lower-tier council to appoint an alternate member of lower-tier council to temporarily replace a person who is a member of both the lower-tier and upper-tier council if the member is unable to attend an upper-tier council meeting.

# Other General Amendment Proposals

**Council-Municipal Staff Relationship Policies**

- Require all municipalities to have a policy on the relationship between members of council and the officers and employees of the municipality.

**Administrative Penalties**

- Provide municipalities with the authority to require a person to pay an administrative penalty if the person has failed to comply with a municipal by-law passed under the Municipal Act or the City of Toronto Act.

**Pregnancy and Parental Leave**

- Require that municipalities have a policy for pregnancy leaves and parental leaves for council members.
- Prevent a council members' seat from becoming vacant due to absences as a result of pregnancy, or the birth or the adoption of the member's child for a period of 20 consecutive weeks or less

**Advertising Devices (Signs)**

- Repeal a provision that limits a municipality's ability to pass bylaws regulating existing advertising devices, such as signs, and provide for transition respecting existing municipal by-laws.

# Other General Amendment Proposals

**Power of Entry**

- Provide municipalities with the ability to enter private property adjoining municipal property for purposes of carrying out maintenance on the municipal property, subject to certain conditions and limits.

**Site Alteration**

- Repeal a provision that provides that municipal by-laws have no effect in areas under jurisdiction of conservation authorities.

**Rental Housing**

- Provide municipalities with the ability to register on title an agreement that is required as a condition of a permit respecting the demolition or conversion of residential rental properties, and to enforce the agreement against the owner and any subsequent owners of the land.

# Proposals to Other Acts

**Amendments to the *Planning Act***

- Add mitigation of greenhouse gas emissions and adaptation to a changing climate as a matter of provincial interest under the Planning Act so that decision-makers carrying out their responsibilities under the Planning Act shall have regard to it.

**Amendments to the *Municipal Elections Act, 1996***

- Term of Office
  - Change the start of the term of office for council and school board members from December 1 to November 15, in the year of a regular election
- Contribution Limits
  - Raise the limit for contributions to a single candidate or third party advertiser from $750 to $1,200, consistent with the provincial limit.
- Self-funding Limit
  - Impose a self-funding limit for municipal council candidates based on the number of electors voting for the office, to a maximum of $25,000 per candidate. The formula for calculating the limit would be $7500 + $0.20 per elector for head of council, and $5,000 + $0.20 per elector for other council offices.

# Concluding Comments

- The proposed *Modernizing Ontario's Municipal Legislation Act, 2016* includes other technical and general amendments not mentioned here.
- Proposed changes would come into force in phases, with some provisions coming into force on Royal Assent and some changes on proclamation.
- The Ministry of Municipal Affairs will also prepare guidance materials to assist municipalities through implementation of the proposed changes.

Town of Orangeville
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March 8, 2017

Transport Canada
330 Sparks Street
Ottawa ON K1A 0N5

Ministry of Transportation
Queen's Park/Minister's Office
77 Wellesley Street West
Ferguson Block, 3rd Floor
Toronto ON M7A 1Z8

Canadian Transportation Agency
Ottawa ON K1A 0N9

Accessibility Directorate of Ontario
601A-777 Bay Street
Toronto ON M7A 2J4

Federation of Canadian Municipalities
24 Clarence Street
Ottawa ON K1N 5P3

Association of Municipalities of Ontario
200 University Ave., Suite 801
Toronto ON M5H 3C6

David Tilson, MP, Dufferin-Caledon
229 Broadway, Unit 2
Orangeville ON L9W 1K4

Sylvia Jones, MPP, Dufferin-Caledon
244 Broadway
Orangeville ON L9W 1K5,

**Re: Securing Mechanisms for Wheelchairs in Vehicles**

At its meeting on Monday, March 6, 2017, the Council of The Corporation of the Town of Orangeville approved the following resolution:

**Whereas a significant segment of the population will have some kind of mobility impairment at any point in time, particularly given our progressively aging population;**

**And whereas the issue of accessibility for people with mobility handicaps is becoming increasingly important;**

**And whereas currently there are voluntary standards for wheelchairs used as seats in motor vehicles in Canada, but there are no federal regulations regarding the attachment of wheelchairs in vehicles to ensure the safety of users;**

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**And whereas Transport Canada establishes safety requirements for certain classes of newly manufactured/imported motor vehicles and motor vehicle equipment pursuant to the Motor Vehicle Safety Act;**

**And whereas provincial/territorial requirements would apply to all vehicles operating in their jurisdictions, not just new or imported vehicles;**

**Therefore be it resolved that:**

1. **Orangeville Town Council request the Provincial and Federal governments to consider implementation of regulations requiring a universal securing mechanism for wheelchairs in vehicles;**

2. **and that a copy of this resolution be sent to Transport Canada, Ontario Ministry of Transportation, the Canadian Transportation Agency, the Accessibility Directorate of Ontario, the Federation of Canadian Municipalities, the Association of Municipalities of Ontario, the local area municipalities, and the local Members of Parliament and Provincial Parliament.**

Yours truly,

**Susan Greatrix | Clerk**
**Town of Orangeville** | 87 Broadway | Orangeville, ON L9W 1K1
519-941-0440 Ext. 2242 | Toll Free 1-866-941-0440 Ext 2242 | Cell 519-278-4948
sgreatrix@orangeville.ca | www.orangeville.ca

cc: Pam Hillock, Clerk/Director of Corporate Services
County of Dufferin
55 Zina Street
Orangeville ON L9W 1E5

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Township of East Garafraxa
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Denise B. Holmes, CAO/Clerk
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Melancthon On L9V 2E6

Mark Early, CAO and Clerk
Town of Mono
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Mono ON L9W 6S3

John Telfer, CAO / Clerk
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Shelburne ON L9V 3K7

Terry Horner,CAO/Clerk
Township of Mulmur
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Mulmur ON L9V 0G8

**Ministry of Education**

Minister

Mowat Block
Queen's Park
Toronto ON M7A 1L2

**Ministère de l'Éducation**

Ministre

Édifice Mowat
Queen's Park
Toronto ON M7A 1L2

Ontario

March 6, 2017

Dear Colleagues,

It will come as no surprise that, over the past several months, our government has been hearing from many parts of Ontario about the impacts of recent pupil accommodation reviews, particularly in Ontario's rural and remote communities. Our government supports and values all communities in Ontario, and our school boards and municipalities must make every effort to work together to ultimately support positive experiences for our students and the communities they live in.

As you know, school closures and consolidations are among the most difficult decisions that school boards have to make. This is especially true in our rural and remote communities. Ontario entrusts school boards with the responsibility to review their school accommodation needs and for ensuring that student achievement and well-being are supported by all accommodation decisions that are made.

However, we also know that some parts of Ontario face demographic challenges, while others are seeing considerable growth. We want to assure all of our community partners that our government is committed to finding solutions to meet both local needs and the educational needs of Ontario's students.

Starting this spring, our government will launch an engagement on new approaches to supporting education in rural and remote communities. Three Parliamentary Assistants, MPPs Granville Anderson, Grant Crack, and Lou Rinaldi, will gather feedback on how our province can further strengthen the future of rural education. We are also pleased to provide you with an update on how our government will further support local decision-making and complete communities moving forward.

**Pursuing Joint-Use Opportunities between School Boards**

Communities and the province expect Ontario's four school systems to maximize the opportunities of co-location. Prior to commencing with student accommodation changes through closures, it is our government's strong preference that school boards fully explore joint accommodation arrangements with coterminous boards, particularly to maintain a school presence in a rural or isolated community. Of the 4,900 schools in Ontario, only 37 are currently joint-use arrangements in which pupils from one or more boards share a facility.

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In July 2013, prior to the launch of the Ministry of Education's 2014 Capital Priorities program, the Ministry stated a preference for these joint-use projects, committing to review these proposals before any others. Additionally, the Ministry of Education has committed $600,000 to assist school boards in pursuing joint-use school opportunities between school boards. This funding is being allocated to support school boards with facilitation and joint planning towards the potential development of joint-use school proposals, as well as on studies being commissioned by the Ministry of Education to highlight joint-use experiences and develop a joint-use school toolkit that can be used to assist school boards in developing joint-use schools.

Moving forward, the Ministry of Education will be reviewing all capital proposals submitted by school boards for ministry funding for new schools, additions or consolidation projects to ensure joint-use opportunities between boards have been fully explored before funding is granted.

**Importance of School Board and Municipal Partnerships**

We have recently had the pleasure of speaking with many of our municipal and school board partners. These conversations have highlighted many positive examples of collaboration and joint local planning between school boards and municipalities. But we have also heard about potential inconsistencies and difficulties in current community collaboration, including instances where municipalities and communities have not felt meaningfully engaged in pupil accommodation reviews. These difficulties can arise for many reasons, but we would like to remind school boards and municipalities of the tools we have provided to facilitate an effective process and provincial expectations with respect to engagement by involved parties:

- **Annual Community Consultation:** Reforms to Ontario's *Planning Act* and *Development Charges Act* were made in 2015 to help create more complete communities and to provide citizens a greater, more meaningful say in how their neighbourhoods grow. The Ministry of Education's Community Planning and Partnerships Guideline was also introduced in 2015 to ensure that each school board hosted at least one meeting each year to discuss their capital plans and opportunities for joint planning and facility partnerships with relevant communities and stakeholders. We have heard from some boards that these meetings are not well attended, and from some communities that they were not aware of them. It is imperative that these meetings involve all relevant stakeholders, and facilitate real dialogue between boards and the involved communities. Further, board policies must reflect this guideline prior to the commencement of new accommodation reviews. To be effective, these meetings require community engagement and attendance and a spirit of real partnership from all parties.

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- **Pupil Accommodation Review Guideline:** Updates to the Pupil Accommodation review guideline in 2015 were introduced following consultations with school boards, municipalities and other community partners to enable a more effective review process. This included a new requirement that impacted municipalities and community partners are consulted regarding the potential accommodation changes. It is our expectation that this is a meaningful engagement from both boards and municipalities, and that full input and feedback from the municipalities, including local economic and community impacts where relevant are reflected in the final staff report and advice to trustees. The new process also requires boards to put forward concrete proposals in the form of initial staff recommendations. These should not be interpreted as pre-determined outcomes, but rather as a means to ensure focused engagement.

Our government expects school boards and communities to be making active and continual efforts to facilitate positive, inclusive relationships with each-other.

The changes made in 2015 to the Pupil Accommodation Review Guideline also changed the minimum requirement for the school information profiles shared at the commencement of an accommodation review to no longer require information outlining the value of the school to the local economy. This change was made to reflect input from school boards that this information was not readily available or in their area of expertise and could be better reflected in the input from municipal and community partners.

While accommodation decisions must support student achievement and well-being as a primary goal, this change was not intended to discount the importance of engagement with communities to understand the impact of accommodation changes or to disallow boards from considering the impacts on communities and local economies from their final reports or deliberations.

Going forward, our government will be considering how community impact could be included in the pupil accommodation process, included with anticipated impacts on student achievement, transportation and outcomes. We will work with municipalities and school boards to explore how the government can best support this type of analysis in the pupil accommodation review process.

**Enabling Community Hubs in Schools**

Through the Premier's special advisor Karen Pitre, our government has been considering how we can use public property in a manner that takes into account the best interests of local communities. A community hub can be a school, neighbourhood centre or other public space that offers co-ordinated services such as education, early years support, health care and social services.

.../4

Many schools have some space that is or could be used by community organizations through lease or other arrangements when the space is not required for school use. The province has encouraged school boards to work with local communities and in 2015 released the Ministry of Education's Community Planning Partnership Guideline to help facilitate these opportunities.

We have also made a number of investments to support this goal, including:

- **Capital Funding for Community Hub School Retrofits:** The Ministry of Education announced $50 million in November 2016 to support retrofits of available school space for use by new community partners, or improve accessibility for schools to enable community use.
- **Capital Funding for Community Replacement Space:** In the event that an original school location that housed community partnerships is closed or sold, capital funding will be available for replacement space for eligible community partners in new schools, additions or retrofits to existing schools. Details regarding eligibility for this new program will be announced ahead of the Ministry of Education's 2017 Capital Priorities program request for submissions.

Surplus schools have also been identified as potential community hubs in some communities, and our government is serious about taking the next steps on this strategy:

- **New Rules for Disposition or Lease of Surplus Property:** Changes to O. Reg. 444/98 doubled the current minimum surplus school circulation period from 90 to 180 days, and expanded the list of organizations that can place an offer before surplus school property is placed on the open market. This is intended to enable potential community hub projects to reuse surplus school properties where there is a viable business plan and identified partnerships necessary to develop a community hub
- **Disposition of Surplus School Board property:** In 2017-18, we will also be proceeding with the recommendation in the Community Hubs Strategic Framework and Action Plan to consider supporting the sale of surplus schools at less than fair market value, where there is a provincial interest to enable viable community hubs, while keeping school boards whole.
- **Community Hubs Summit:** We are also pleased to announce that the Ontario Community Hubs Summit will be held from May 1-3, 2017, which will feature keynote speakers, hands-on workshops and opportunities to interact with and learn from others.

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Recognizing that planning for strategic partnerships cannot be developed quickly or easily, in instances where communities and school boards see innovative solutions to local needs with opportunities for potential community hubs in school properties involved in accommodation reviews, we are requesting that school boards and municipalities with opportunities advise the Ministry of Education's Capital Policy and Programs Branch and the Ministry of Infrastructure's Community Hubs Division at community.hubs@ontario.ca preferably before the Community Hubs Summit. We will endeavor to work with the partners to ensure that these opportunities are considered within existing resources. In some cases, this could include providing facilitation services that would help community organizations, municipalities, and school boards develop their proposals for community hubs.

**Enhancing Education in Rural and Remote Communities**

Ontario's rural and remote communities have been impacted by a diversity of socio-economic trends. We also know that the future will not look like the past. For our rural communities to thrive, our government knows that students must be supported by high-quality education, strong local community programming, and innovative local economic strategies. That's why we've taken the following actions to support our rural and remote schools:

- **Supporting Broadband Expansion:** Our government is moving forward with its commitment in the 2016 Ontario Budget to provide secure, affordable broadband access to all of Ontario's students and educators, especially in northern and remote parts of Ontario, to enable equitable access to rich and innovative learning opportunities.
- **Supporting E-Learning Opportunities:** Our government provides secure access to the provincial Virtual Learning Environment which supports delivery of eLearning courses that otherwise might not be available close to a student's home. Additionally, we are investing over $6 million for distance learning delivery by the Independent Learning Centre of TVO that helps students from a variety of backgrounds gain necessary education credentials. Together these support equitable and timely access to credit courses.
- **Remote & Rural Funding Support for School Boards:** We have made the education funding formula less dependent on enrolment. Since 2012-13, annual GSN funding for rural boards has increased by nearly $200 million or 5.7 per cent. In addition, we have made the following changes the funding formula to meet the unique needs of rural and remote communities:
    - Increased funding to support the higher cost of purchasing goods and services for small and rural school boards;

.../6

- Investments in top-up supports for rural schools to fund the heating, lighting and maintenance costs of excess spaces in schools that are a considerable distance from the next closest school;
- Introduced new factors that reflect distance and dispersion of schools in the distribution of special education funding;
- Funding for additional principals in schools that combine elementary and secondary students, depending on enrolment levels; and
- Funding to support a minimum number of teachers and early childhood educators for remote schools with small enrolment.

It is our hope that our engagement this coming spring will allow us to highlight further opportunities that will proactively enhance the quality and delivery of education in rural and remote communities in Ontario. We will work with our partners to finalize the details of this engagement process and share these in the coming weeks.

**Conclusion**

There are a number of initiatives across government that are working to ensure that we have complete communities – whether they are urban, rural, northern or remote. Each community has different needs and together we need to make sure we are working together.

We welcome your thoughts and suggestions as we continue to evolve to meet the changing demographics and needs of our communities.

Sincerely,

*[Original Signed by]*

Hon. Mitzie Hunter

*[Original Signed by]*

Hon. Bob Chiarelli

cc: Hon. Bill Mauro, Ontario Ministry of Municipal Affairs
Hon. Jeff Leal, Ontario Ministry of Agriculture Food and Rural Affairs
Association of Municipalities of Ontario
Rural Ontario Municipal Association
Ontario Catholic School Trustees' Association (OCSTA)
Ontario Public School Boards' Association (OPSBA)
L'Association des conseils scolaires des écoles publiques de l'Ontario (ACÉPO),
L'Association franco-ontarienne des conseils scolaires catholiques (AFOCSC);

**Denise Holmes**

**From:** MPAC News <mpacnews@mpac.ca>
**Sent:** Monday, March 06, 2017 9:12 AM
**To:** Denise Holmes
**Subject:** MPAC News - March 2017

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# MPAC News - March 2017

La version française

## Industrial Wind Turbines Study Published

In advance of the 2016 Assessment Update, MPAC completed a 2016 Base Year Study on the impact the proximity to an industrial wind turbines (IWT) has on the assessments of residential properties. The study was conducted in response to the growing number of industrial wind turbines in Ontario and requests for information from stakeholders.

Our findings concluded that 2016 Current Value Assessments of properties within proximity of an industrial wind turbine are assessed at their current value and are equitably assessed in relation to homes at greater distances.

Further, by analyzing sales prices, our findings concluded that there is no statistically significant impact on sale prices of residential properties in these market areas resulting from proximity to an industrial wind turbine.

The full study is available on mpac.ca. For more information or to attend one of our webinar sessions please contact your local account manager.

## Home Depot Appeals Resolution

Since resolving the Canadian Tire Corporation (CTC) appeals in November 2016, MPAC has been working closely with Home Depot to resolve 76 outstanding appeals for the 2008 and 2012



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base years in a consistent fashion. Utilizing the CTC settlement framework as the basis, MPAC and Home Depot have collaboratively resolved the three core issues raised at appeal.

Based on the newly agreed upon framework, a Memorandum of Understanding (MOU) for the settlement has been signed between MPAC and Home Depot, effectively binding these parties to the settlement reached.

A property assessment bulletin with additional details was distributed on February 10. If you did not receive the bulletin or would like additional information please contact your local account manager.

## Changes to the Property Assessment Change Notice schedule

Effective May 1, 2017, MPAC will begin delivering Property Assessment Change Notices (PACN) to property owners and omitted and supplementary assessment listings/tax files to municipalities on a monthly basis, with the last extract occurring on November 1.

The monthly extracts support MPAC's transparency and accountability initiatives under the Service Level Agreement with municipalities and it provides opportunities for MPAC's valuation staff to add assessment changes for all property types on a more predictable timeframe, resulting in a more equal distribution of growth.

## Municipal Webinar Series: What's on the Horizon for 2017

MPAC is launching a three-part webinar series to provide a forum for municipalities to learn about key factors affecting the assessment and property landscape in 2017 including:

- Assessment base management practices
- The new two-way Service Level Agreement between MPAC and municipalities
- Changes to the appeal process

Beginning in March, the webinars will feature Carla Y. Nell and MPAC subject matter experts as well as a facilitator

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MUNICIPAL PROPERTY ASSESSMENT CORPORATION
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# Industrial Wind Turbines

## Impact of Industrial Wind Turbines on Residential Property Assessment In Ontario

The Municipal Property Assessment Corporation (MPAC) undertook a study to ensure that the assessments of properties in proximity to industrial wind turbines (IWTs) are fair and accurate. Over the last few years, the subject of IWTs has been the subject of numerous reports and studies – both in Canada and worldwide. Past and current studies undertaken by academics, real estate and health professionals have focused on the potential impacts of IWTs on property value and the health of those residing on the property. Given MPAC's legislated mandate, this report studies whether properties within five kilometres of an IWT are assessed at current value, and whether their assessment is equitable to those situated more than five kilometres from an IWT.

MPAC's study concludes that 2016 Current Value Assessments (CVAs) of properties located within proximity to an IWT are assessed at their current value and are equitably assessed in relation to homes at greater distances. This finding is consistent with MPAC's 2008 and 2012 CVA reports. The study underwent a rigorous independent third-party peer review (conducted by Robert J. Gloudemans) and includes appendices describing the study parameters and documenting the analyses.

## 2016 Base Year Study

Report - Impact of Industrial Wind Turbines on Residential Property Assessment in Ontario - 2016 Assessment Base Year Study [1]

- Appendix A [2]
- Appendix B [3]
- Appendix C [4]
- Appendix D [5]

## 2012 Base Year Study

Report - Impact of Industrial Wind Turbines on Residential Property Assessment In Ontario - 2012 Assessment Base Year Study [6]

- Appendix A [7]
- Appendix B [8]
- Appendix C [9]
- Appendix D1 [10]
- Appendix D2 [11]
- Appendix D3 [12]
- Appendix D4 [13]
- Appendix D5 [14]

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Information on this page may not be fully accessible. Please contact us at **1 866 296-6722** or **1 877 889-6722 TTY** to determine how we can best accommodate you.

**Source URL:** https://www.mpac.ca/PropertyOwners/IndustrialWindTurbines

**Links**
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MUNICIPAL PROPERTY ASSESSMENT CORPORATION

# IMPACT OF INDUSTRIAL WIND TURBINES ON RESIDENTIAL PROPERTY ASSESSMENT IN ONTARIO

## 2016 ASSESSMENT BASE YEAR STUDY

## Table of Contents

Abstract

The Municipal Property Assessment Corporation (MPAC) undertook a study to ensure that the assessments of properties in proximity to industrial wind turbines (IWTs) are fair and accurate. Over the last few years, the subject of IWTs has been the subject of numerous reports and studies – both in Canada and worldwide. Past and current studies undertaken by academics, real estate and health professionals have focused on the potential impacts of IWTs on property value and the health of those residing on the property. Given MPAC's legislated mandate, this report studies whether properties within five kilometres of an IWT are assessed at current value, and whether their assessment is equitable to those situated more than five kilometres from an IWT.

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## Authors of This Report

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Jason Moore is Valuation Manager - Assessment Standards and Mass Appraisal, Office of the Chief Assessor with the Municipal Property Assessment Corporation. Mr. Moore oversees the mass appraisal of approximately 1.5 million properties across ten MPAC field offices including the regions of York, Halton, Peel, and Niagara, the cities of Hamilton and Brantford and the counties of Brant, Haldimand and Norfolk. He is also responsible for the valuation and data collection procedures for residential and farm property types. Mr. Moore has given several presentations and training sessions on mass appraisal and regression analysis as well as specific residential and farm issues. He is a member of the Royal Institution of Chartered Surveyors and has a Masters, Business Administration from McMaster University.

### Jamie Stata, BA, UBC Certificate of Real Property Assessment

Jamie Stata is a Property Valuation Specialist - Assessment Standards and Mass Appraisal, Office of the Chief Assessor with the Municipal Property Assessment Corporation. Mr. Stata has nearly 27 years of property assessment experience in the province of Ontario. He currently conducts the mass appraisal analysis of commercial and industrial vacant land across eighteen counties in Southwestern Ontario and has completed the residential mass appraisal analysis for Huron, Perth, Grey and Bruce counties over the past five province-wide assessment updates. He has completed research on the combined valuation of residential and commercial properties and recently led a project team researching the acquisition of new cost estimates on farm buildings. Mr. Stata has presented at the International Association of Assessing Officers Annual Conference on Assessment Administration and the Mass Appraisal Valuation Symposium conducted by the International Property Tax Institute.

### Scott Bradfield, BSc (Hon), A.I.M.A

Scott Bradfield is a Senior Data Scientist with Assessment Standards and Mass Appraisal, Office of the Chief Assessor, Municipal Property Assessment Corporation. Mr. Bradfield has almost 15 years of experience in regression and statistical analysis for property appraisal and is currently responsible for all residential mass appraisal work for two MPAC field offices responsible for the cities of Hamilton and Brantford as well as the counties of Brant, Haldimand and Norfolk. In addition, he has completed mass appraisal work for multi-residential properties, including both fair market rents and gross income multipliers; and development land properties. He is also MPAC's subject matter expert for residential valuation and data collection and has led several research projects for the corporation. Mr. Bradfield holds an honours Statistics degree from McMaster University and is an associate member of the Institute of Municipal Assessors.

## Executive Summary

This report provides the results of the Municipal Property Assessment Corporation's study of the impact of industrial wind turbines (IWTs) on residential property assessment in Ontario (2016 Assessment Base Year Study).

### Background

MPAC is responsible for accurately assessing and classifying property in Ontario in compliance with the *Assessment Act* and regulations set by the Government of Ontario. Our assessors are trained experts in the field of valuation and apply appraisal industry standards and best practices. Every four years, we conduct a province-wide Assessment Update and mail Property Assessment Notices to every property owner in Ontario. The most recent Assessment Update was in 2016 when we updated the assessed values of every property in Ontario. All properties were assessed as of the legislated valuation date of January 1, 2016. These updated values and classifications are used by municipalities and taxing authorities to calculate property taxes and are in effect for the 2017-2020 tax years.

When assessing any property, MPAC relies on the real estate market to indicate what influence a factor, such as IWTs, may have on a property's value. MPAC does this through the ongoing study and analysis of the market including the investigation of sales transactions.

Over the last few years, IWTs have been the subject of a number of reports and studies – both in Canada and worldwide. Studies undertaken by academics, real estate and health professionals have focused on the potential impacts of IWTs on property value and the health of those residing on the property. Given MPAC's legislative mandate, this report studies whether properties within five kilometres of an IWT are accurately assessed at their current value, and whether those properties are assessed equitably with properties that are further than five kilometres from an IWT.

To date, MPAC has completed three reviews of the impact of IWTs: 2008, 2012 and 2016 base year studies.

### 2008 Base Year Study

MPAC undertook a study looking at the impact of IWTs on residential assessments using the 2008 base year CVAs. The 2008 study concluded that the presence of IWTs that are either abutting or in proximity to a property had neither a positive nor negative impact on assessed values.

### 2012 Base Year Study

With much more sales data available, MPAC was able to conduct a more thorough review using 2012 assessment base year information. The study considered proximity and whether the wind turbine was visible (full, partial or not visible at all). A statistically significant difference was found between homes within one kilometre of an IWT and those farther away but the difference was well within international standards for equity between groups of property. All other tests showed equity between property groups. For more information about the 2012 base year review, see the introduction section of this report (which includes a link to the full report).

### 2016 Base Year Study

MPAC has continued to monitor the influence of proximity to IWTs over the current values of residential properties and has completed an analysis similar in scope to the 2012 Base Year Study.

To conduct this study, MPAC considered 25 market areas with sufficient sales to allow for analysis and applied industry standard mass appraisal techniques and internationally accepted ratio study standards to current value assessments for these market areas.

MPAC conducted an assessment-to-sale ratio study to determine whether assessments are equitable regardless of whether a property is within close proximity to an IWT. An individual assessment-to-sale ratio study is calculated by dividing the assessed value of each property by its time adjusted sale price. A ratio study is conducted to first establish the level of appraisal for a group of properties and equity is determined by comparing the level of appraisal with other groups of properties. If a group of properties is assessed at market value, the median assessment-to-sale ratio will lie between 0.90-1.10. By definition, equity is said to exist if the difference between the property categories is five per cent or less. This definition follows the International Association of Assessing Officers (IAAO) ratio study standards.

MPAC found that the level of appraisal for properties within one kilometre of an IWT is 1.007. The level of appraisal for properties within one to two kilometres of an IWT is 0.995. These numbers are within 3.3% and 2.1% of the level of assessment of properties more than five kilometres from an IWT (0.974) and are below the 5% noted above.

### Conclusions

Following its review, MPAC concluded that 2016 Current Value Assessments of properties located within proximity of an IWT are assessed at their current value and are equitably assessed when compared to the assessments of properties that are not in proximity to IWTs.

Therefore, no adjustments are required for 2016 CVAs. This finding is consistent with MPAC's 2008 and 2012 base year IWT reports.

In addition to the results shared in this report, MPAC also commissioned an internationally recognized expert in the field of mass appraisal and ratio studies to review the report and its findings. This expert has confirmed the findings in this report (Appendix A – Independent Review of Report – Industrial Wind Turbine Ratio Study - R.J. Gloudemans, November 22, 2016).

## Introduction

The topic of wind energy has been front and centre in the minds of many Ontarians, particularly those living in rural areas. Much has been written about how industrial wind turbines impact those who live in proximity to them. There has been extensive reporting on the numerous aspects of this subject, including reports of health effects, the approval process for siting IWTs and the potential for property devaluation due to the perceived stigma attached to these developments.

Several studies, based on both scientific and non-empirical methods, have been completed by academics and real estate professionals to determine whether or not the presence of an IWT has an effect on the sale price of a property. A study released by the Berkeley National Laboratory and prepared for the U.S. Department of Energy[1], found minimal impact on property values as a result of being in close proximity to IWTs. A study by the University of Guelph using Ontario data reached a similar conclusion[2]. However, one Ontario case study[3] released in 2013, argues that properties in Ontario in proximity to an IWT are devalued by as much as 30 to 35 per cent.

Also, Health Canada produced a study on the health effects of living near IWTs.[4]

### 2008 Base Year Study

MPAC conducted a study using 2008 base year Current Value Assessments, to determine whether residential properties located near IWTs were equitably assessed when compared to properties at a greater distance. The study was based on very limited sales information as there were few IWTs in the province at that time. As a result, it was difficult to draw meaningful conclusions with the 2008 study. Based on the available sale information, no adjustment to value was required for the 2008 Current Value Assessments.

### 2012 Base Year Study

In response to the growing presence of IWTs in Ontario as well as requests for information from stakeholders, MPAC undertook a new study using the 2012 base year CVAs to provide a thorough examination of the impact of IWTs on residential property assessment.

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[1] Ben Hoen et al, "A Spatial Hedonic Analysis of the Effects of Wind Energy Facilities on Surrounding Property Values in the United States", Berkeley National Laboratory, August 2013

[2] Vyn, R. J., and R. M. McCullough. (2014). The effects of wind turbines on property values in Ontario: Does public perception match empirical evidence? *Canadian Journal of Agricultural Economics* 62 (3): 365-392.

[3] Ben Lansink, "Case Studies: Diminution / Change in Price Melancthon and Clear Creek Wind Turbine Analyses, Municipal Property Assessment Corporation (MPAC) Current Value Changes," Lansink Appraisals and Consulting, February 2013

[4] http://www.hc-sc.gc.ca/ewh-semt/noise-bruit/turbine-eoliennes/summary-resume-eng.php

Specifically, the study sought to examine the following two statements:

1. Determine if residential properties in close proximity to IWTs are assessed equitably in relation to residential properties located at a greater distance. This was referred to as *Study 1 – Equity of Residential Assessments in Proximity to Industrial Wind Turbines*.

2. Determine if sale prices of residential properties are affected by the presence of an IWT in close proximity. This was referred to as *Study 2 – Effect of Industrial Wind Turbines on Residential Sale Prices*.

Study 2 was added to the original scope of the review to respond to enquiries MPAC received from stakeholders and interested parties.

To conduct these studies, MPAC considered 15 market areas with sufficient sales to allow for analysis and applied industry standard mass appraisal techniques and internationally accepted ratio study standards.

To determine the equity of assessments of properties within close proximity to an IWT, MPAC conducted an assessment-to-sale ratio (ASR) study. An individual ASR is calculated by dividing the assessed value of each property by its time-adjusted sale price. A ratio study is conducted to first establish the level of appraisal for a group of properties and equity is determined by comparing the level of appraisal with other groups of properties. If a group of properties is assessed at market value, the median ASR will lie between 0.90-1.10[5]. By definition, equity is said to exist if there is 5% or less difference between property categories (or groups of properties) as per International Association of Assessing Officers (IAAO) ratio study standards.

The level of appraisal for properties within one kilometre of an IWT was 1.034. The level of appraisal for properties at greater distance (one to two kilometres, two to five kilometres and over five kilometres) ranged from 0.989 to 0.992, a 4.2 to 4.5% differential, which is below the 5% noted above.

Following its review, MPAC concluded that 2012 CVAs of properties located within proximity of an IWT were assessed at their current value and were equitably assessed in relation to homes at greater distances from the IWTs. No adjustments were required for 2012 CVAs. This finding is consistent with MPAC's 2008 CVA report.

MPAC's findings also concluded that there was no statistically significant impact on sale prices of

[5] MPAC adopted the IAAO Ratio Study standards for the 2016 assessment update. Therefore, the Target Level of Assessment (LOA) changed between 2012 and 2016 from 0.95 – 1.05 to 0.90 – 1,10. See International Association of Assessing Officers, *Standard on Ratio Studies*, April 2013, pp. 17-19

residential properties in these market areas resulting from proximity to an IWT, when including distance to an IWT in its regression analysis for areas with adequate sales.

In addition to the results shared in this report, MPAC also commissioned an internationally recognized expert in the field of mass appraisal and ratio studies to review the report and its findings. This expert confirmed MPAC's findings in his report.

To see the full 2012 base year study click here.

## Purpose of This Report

This 2016 base year report has been undertaken to ensure that the assessments on residential properties in proximity to IWTs are accurate and equitable. Specifically, the report examines whether residential properties in close proximity to IWTs are assessed equitably in relation to residential properties located at a greater distance.

## Legislation

Sections of the *Assessment Act* relevant to this study include the following:

Section 1 (1): "current value" means, in relation to land, the amount of money the fee simple, if unencumbered, would realize if sold at arm's length by a willing seller to a willing buyer; ("valeur actuelle").

Section 19 (1): The assessment of land shall be based on its current value.

Section 44 (3): For 2009 and subsequent taxation years, in determining the value at which any land shall be assessed, the Board shall,

- determine the current value of the land; and
- have reference to the value at which similar lands in the vicinity are assessed and adjust the assessment of the land to make it equitable with that of similar lands in the vicinity if such an adjustment would result in a reduction of the assessment of the land. 2008, c. 7, Sched. A, s. 13.

Under the *Assessment Act* and associated regulations, (Ontario Regulation 282/98, Section 42.5), IWTs are valued at a prescribed rate per taxation year (Table 1). The value of the IWT, plus the value of the associated land, is placed in the industrial tax class.

**Table 1 - IWT Valuation**

| Property Tax Year | IWT Value Per MW |
|---|---|
| 2013 and earlier | $40,000 |
| 2014 | $42,658 |
| 2015 | $43,542 |
| 2016 | $43,986 |
| 2017 | $50,460 |
| 2018 | $50,460 |
| 2019 | $50,460 |
| 2020 | $50,460 |

## Valuation of Residential Properties

To estimate value of residential properties, MPAC applies the direct comparison approach through mass appraisals. The direct comparison approach estimates the current value of a subject property by comparing it to similar properties and adjusting the result to account for differences between the two properties. Mass appraisal uses standardized processes and common data to allow for the valuation of a group of properties and the statistical testing of the results. For more information on how residential properties are assessed, go to mpac.ca.

### Multiple Regression Analysis

MPAC uses industry standard computer-assisted mass appraisal techniques to apply the direct comparison approach to value through a statistical tool known as multiple regression analysis.

Regression analysis is a statistical technique used to analyze data in order to predict the value of one variable, such as market value, based on known data (e.g., living area, lot size, quality, location, etc.). If only one variable is used, such as living area, the procedure is called simple regression analysis. When two or more variables are used in the analysis, the procedure is called multiple regression analysis.

Multiple regression analysis estimates the value of one variable (i.e., the dependent variable) based on the information from the available data (i.e., the independent variables). Assessing authorities, such as MPAC, develop an equation that estimates current value based on the sale prices and property characteristics of sold properties. The equation, or valuation model, provides the best estimate of current value in statistical terms since it reduces the overall error between sale price and predicted value (estimated current value) to the lowest possible amount in dollar terms.

### Market Areas

In Ontario, MPAC has approximately 130 residential market areas. Market areas are geographic areas subject to the same economic influences. One valuation model is built for each market area. A market area could be a section of a large city, like Toronto, a medium sized city like Niagara Falls or a cluster of smaller towns. Also, it could be the rural residential properties within a county or a group of lakes in a recreational waterfront area such as Muskoka or Kawartha Lakes.

### Key Factors Affecting Value

Approximately 85% of the current value of a property can be attributed to the following five property characteristics: location, building area, construction quality, lot size and age of the home adjusted for renovations and additions. Other features that may be adjusted for include;

water frontage, building amenities (e.g., basement area, basement finish, bathrooms, fireplaces, heating, air conditioning), secondary structures (e.g., garages, in-ground pools), site features (e.g., abutting green space, abutting a ravine, abutting a commercial property, topography, corner lot, traffic pattern). Value influences differ across the province and therefore will not have the same impact on every market model.

### Legislated Valuation Date

All estimates of current value represent market conditions as of January 1, 2016, which is the legislated valuation date for the 2017-2020 property tax years. As a result, part of MPAC's analysis is to determine the amount of inflation or deflation in each market area and adjust sale prices for time in relation to the legislated valuation date.

### Assessment-to-Sale Ratio Study

Once each valuation model has been developed, it is tested to ensure it is producing accurate and uniform estimates of value using a sale ratio study, which compares value estimates to actual sale prices. This study ensures that the overall level of assessment for the market area is within international standards for accuracy and uniformity. The second aspect of the ratio study is to ensure that equity has been achieved across all major property characteristics.

### Application of Valuation Model

Once the statistical testing has been completed and the valuation model for each market area has been deemed appropriate, it is applied to all the applicable properties in the market area and qualified valuation staff commence individual value review. The purpose of this exercise is to reconcile the value estimates to ensure that an accurate and equitable assessment has been placed on each property. These efforts tend to focus on areas with few sales and properties with features that cannot be captured within mass appraisal models. This review work continues up until the Assessment Roll is provided to each municipality and will include sales before and after the valuation date.

## Industrial Wind Turbines

### 2016 Base Year Analysis

Between 2008 and 2016, Ontario has seen a proliferation of wind turbine projects with the introduction of the *Green Energy Act* in 2009 and the Feed-in-Tariff (FIT) program. This has resulted in a large set of available sales data for properties in proximity to these projects.

For the purposes of the 2016 base year study, MPAC has adopted a definition of an IWT to be one with a capacity of at least 1.5 megawatts. MPAC analyzed sales located within five kilometres of any IWT with this generating capacity. This is consistent with the definition currently being used by Health Canada[6] and was used for the 2008 and 2012 MPAC studies.

### Data Collection

To ensure MPAC's inventory of IWTs was as complete as possible, MPAC obtained NAV Canada's entire flight obstacle inventory, which included the geographic coordinates of every self-reported IWT in Ontario. NAV Canada's inventory is subject to voluntary reporting compliance and thus does not include every IWT/flight obstacle. Any IWTs identified by NAV Canada that had not yet been field inspected by MPAC, were inspected by local staff and all relevant data was keyed into MPAC's database. Any IWTs identified in MPAC's database that were not included on NAV Canada's database were either inspected by local MPAC staff and the geographic coordinates were collected, or determined through the use of satellite digital imagery. To track the inventory, MPAC assigns a structure code of 567 to represent IWTs.

To ensure the database inventory was accurate, MPAC staff then conducted quality checks of all IWT data, including its generating capacity and geographic coordinates to ensure accuracy (e.g., co-ordinates not placing the IWTs on the correct property). Of the 2,321 IWTs in MPAC's database after this exercise, 48 were removed for having a capacity below 1.5 MW and two were removed for other reasons, leaving 2,271 IWTs for review. The distribution across MPAC's market areas is as follows:

6 http://www.hc-sc.gc.ca/ewh-semt/consult/_2013/wind_turbine-eoliennes/comments_part1-commentaires_partie1-eng.php#a16

**Table 2 – Count of IWTs by MPAC Region**

| MPAC Region | Region Description | IWT Count | Property Count |
|---|---|---|---|
| 01 - Cornwall | Prescott & Russell County, Stormont Dundas & Glengarry County | 10 | 9 |
| 05 – Kingston | Frontenac County, Lennox & Addington County | 91 | 68 |
| 18 – St. Catharines | The Region of Niagara | 10 | 7 |
| 20 – Brantford | Brantford City, Brant, Haldimand and Norfolk Counties | 234 | 192 |
| 22 – Kitchener | Regional Municipality of Waterloo, Dufferin and Wellington County, City of Guelph | 220 | 153 |
| 23 – London | Elgin, Middlesex & Oxford Counties | 137 | 123 |
| 24 – Goderich | Huron & Perth Counties | 284 | 217 |
| 25 – Owen Sound | Grey & Bruce Counties | 280 | 222 |
| 26 – Chatham | Chatham-Kent, Lambton County | 602 | 510 |
| 27 – Windsor | Windsor/Essex | 173 | 148 |
| 30 - Sudbury | Regional Municipality of Sudbury, Territorial District of Sudbury, Territorial District of Manitoulin | 25 | 24 |
| 31 – Sault Ste. Marie | Territorial District of Algoma | 162 | 46 |
| 32 – Thunder Bay | Territorial District of Kenora, Territorial District of Rainy River, Territorial District of Thunder Bay | 43 | 43 |
| **Overall** | | 2,271 | 1,762 |

As some properties had more than one IWT erected on them, the property count does not match the count of IWTs.

Virtually all IWTs are erected on vacant lots or farm properties, with almost 95% located on farms and most of the remainder on vacant lots.

The year of construction of IWTs in the database ranges from 2002 to 2016, with a breakdown as follows:

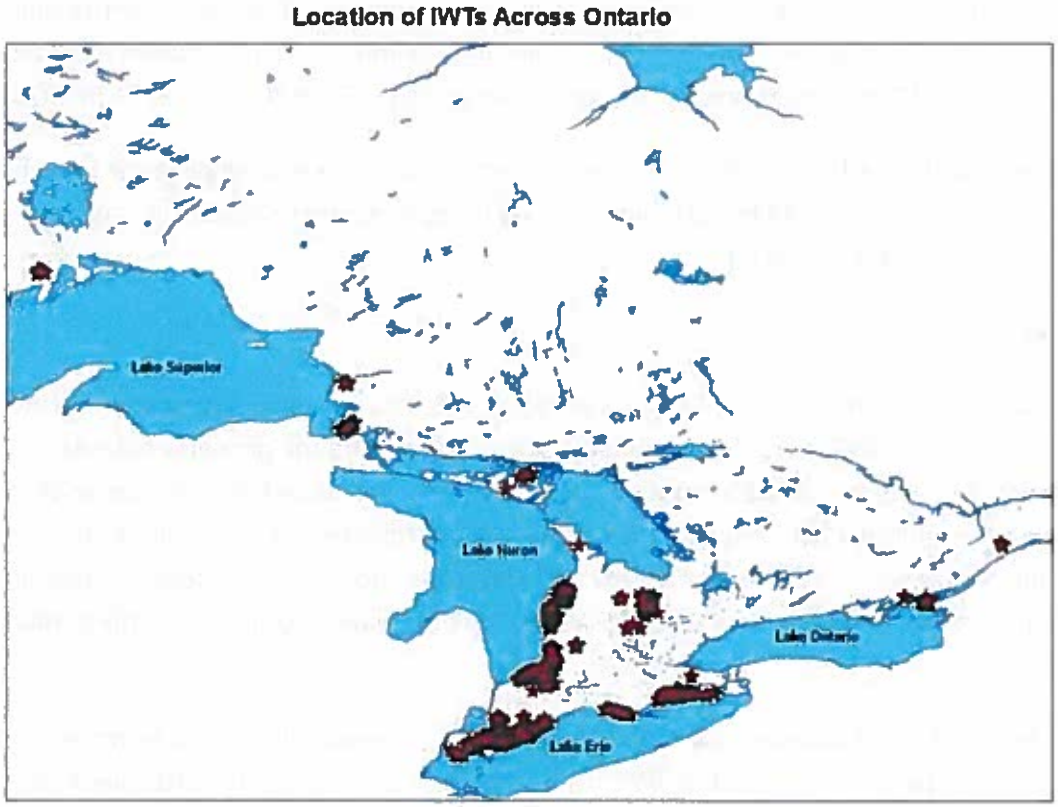
**Table 3 - Typical Physical Characteristics of IWTs Across Ontario**

| MPAC Region | Median Year of Construction | Earliest Year of Construction | Latest Year of Construction | Median Generating Capacity | Minimum Generating Capacity | Maximum Generating Capacity |
|---|---|---|---|---|---|---|
| 01 - Cornwall | 2014 | 2014 | 2014 | 3.00 | 3.00 | 3.00 |
| 05 - Kingston | 2008 | 2008 | 2014 | 2.30 | 1.65 | 2.30 |
| 18 – St. Catharines | 2014 | 2014 | 2014 | 1.80 | 1.80 | 1.80 |
| 20 - Brantford | 2013 | 2007 | 2014 | 2.20 | 1.50 | 2.30 |
| 22 - Kitchener | 2008 | 2006 | 2014 | 1.50 | 1.50 | 2.75 |
| 23 - London | 2014 | 2006 | 2015 | 1.62 | 1.50 | 2.22 |
| 24 - Goderich | 2015 | 2006 | 2016 | 1.80 | 1.50 | 2.30 |
| 25 – Owen Sound | 2008 | 2002 | 2015 | 1.80 | 1.60 | 2.30 |
| 26 – Chatham | 2012 | 2008 | 2015 | 2.03 | 1.50 | 2.50 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 27 – Windsor | 2010 | 2010 | 2013 | 2.30 | 1.65 | 2.30 |
| 30 - Sudbury | 2014 | 2004 | 2014 | 2.50 | 1.80 | 2.50 |
| 31 – Sault Ste. Marie | 2006 | 2006 | 2015 | 1.50 | 1.50 | 1.62 |
| 32 – Thunder Bay | 2010 | 2010 | 2010 | 2.30 | 2.30 | 2.30 |
| Overall | 2012 | 2002 | 2016 | 1.80 | 1.50 | 3.00 |

The following map shows the locations of the IWTs used in the analysis.

**Figure 1**



## Equity of Residential Assessments in Proximity to Industrial Wind Turbines

For this study, MPAC analyzed open market sales of improved residential properties from January 2012 through October 2016 in the market areas surrounding IWTs. A market area is defined as a geographic area, usually contiguous, subject to the same economic influences, where properties tend to increase or decrease in value together. Improved residential properties would include single detached houses, semi-detached houses, townhouses, and multiplex properties with up to six self-contained units. Farms, commercial and industrial properties were not included in this analysis.

### Comparison to the 2012 Base Year Study

This study is similar to the one conducted for the 2012 base year. To provide clarity to readers who are familiar with the 2012 study, a summary of similarities and differences is provided below.

**Similarities**

The methodology is the same. Both reports contain a sale ratio study which compares the median level of assessment between different groups of properties. The details of the sale ratio study are provided below. The number of sales in proximity to an IWT has increased due to the increase in IWT construction over the past four years (1157 in 2012 vs. 2271 in 2016).

IWTs with a capacity less than 1.5MW have been removed when measuring distance to an IWT: 28 were removed in 2012 vs. 48 in 2016 (note one IWT was removed in 2016 that was situated on a nuclear power plant property).

**Differences**

For the 2012 study distance from an IWT to a property was measured from the corner of the dwelling to the closest IWT. For 2016, distance was measured from the property boundary nearest the IWT. It was found to be too time-consuming to collect data from the corner of the dwelling as this required a field inspection to obtain the coordinates for the corner of the dwelling, and would require field visits as new IWTs are constructed in the future. As mapping information becomes more sophisticated, MPAC will look for ways to collect this information electronically.

In 2012, MPAC collected data on how much of an IWT was in view (full, partial or none) for all residences within two kilometres of an IWT. This data was not collected for 2016 because it didn't impact the assessment in 2012 and this data was too time-consuming to collect. It

required a physical inspection and photos taken at each property whenever a new IWT was constructed and required significant resources to keep the database up to date. MPAC will look to published research and studies and if an efficient method surfaces, we will consider implementing it.

A new measure for the 2016 study is the concentration of IWTs around residential properties. This was measured using Geographical Information Systems (GIS) to determine the number of IWTs within the distance grouping for each sale (i.e. number of IWTs within one kilometre, two kilometres or five kilometres of a sale). This allows MPAC to test if the number of IWTs in proximity to a residence affects the level of assessment.

## 2016 Base Year Study

### Sales

For this study, sales in proximity to IWTs were found in 25 market areas.

**Table 4 – MPAC Market Area Descriptions**

| Market Area | MPAC Region | Description |
|---|---|---|
| 01RR010 | 01 - Cornwall | City of Cornwall and the Counties of Prescott & Russell, Stormont, Dundas and Glengarry |
| 05RR030 | 05 – Kingston | Napanee, Loyalist Township, Frontenac/Lennox & Addington Counties South Rural/Waterfront |
| 16RR030 | 16 - Barrie | Simcoe West |
| 18RR010 | 18 – St. Catharines | Niagara Rural |
| 18WF010 | 18 – St. Catharines | Niagara/Lake Erie Waterfront |
| 19RR010 | 19 – Hamilton | Hamilton Rural |
| 20RR010 | 20 – Brantford | Brant, Haldimand, Norfolk Counties - Rural/Waterfront |
| 22RR010 | 22 – Kitchener | Dufferin & Wellington Counties - Rural |
| 22UR020 | 22 – Kitchener | Dufferin County Villages |

| | | |
|---|---|---|
| 22UR030 | 22 – Kitchener | Wellington County Villages |
| 23RR010 | 23 – London | Elgin, Middlesex & Oxford Counties - Rural |
| 23UR030 | 23 – London | Towns of Tillsonburg, Ingersoll, Woodstock, Aylmer, St. Thomas and Strathroy |
| 24RR010 | 24 – Goderich | Huron & Perth Counties - Rural |
| 25RR010 | 25 – Owen Sound | Grey & Bruce Counties - Rural and Inland Lakes |
| 25UR010 | 25 – Owen Sound | Grey & Bruce Counties - Urban |
| 26RR010 | 26 – Chatham | Chatham-Kent - Rural/Wallaceburg |
| 26RR030 | 26 – Chatham | Lambton County - Rural/Waterfront |
| 26UR010 | 26 – Chatham | City of Chatham |
| 27RR010 | 27 – Windsor | Essex County Rural and Towns |
| 27UR070 | 27 – Windsor | Lasalle, Tecumseh, Lakeshore Urban & Essex Urban |
| 30RR010 | 30 - Sudbury | District of Sudbury |
| 31RR010 | 31 – Sault Ste Marie | District of Algoma |
| 31UR010 | 31 – Sault Ste Marie | Sault Ste. Marie/Prince Township |
| 45WF050 | 24 – Goderich<br>25 – Owen Sound<br>26 - Chatham | Lake Huron |
| 78WF040 | 16 – Barrie<br>17 – Bracebridge<br>25 – Owen Sound<br>28 – North Bay | Georgian Bay |

Adjustments for being in proximity to IWTs were not included when establishing CVAs for the 2008, 2012 or 2016 base years in any of these market areas.

**Sales Filters**

To account for typical minimum sale amounts, any sale below $10,000 was removed in Southwestern or Eastern Ontario, and any sale below $5,000 was removed in Northern Ontario. Any sale of a property on which an IWT sits was removed from analysis to avoid the potential influence that the income stream associated with such properties may exert. As concerns about noise and vibration have been raised by IWT opponents, sales of vacant land were removed (i.e. only properties with a residence were included). There were two market areas with five or fewer sales and these were excluded from the analysis (Goderich urban area and Kingston urban area). Sales that were not open market transactions or suspected to not be arms-length open market transactions were removed from the analysis. Finally, those with extreme ratios of CVA to sale price as defined by the International Association of Assessing Officers (IAAO) Standard on Ratio Studies[7] were also removed from analysis.

**Assessment-to-Sale Ratio Study**

To establish the level of assessment and test for equity, MPAC conducts an assessment-to-sale ratio study. The assessment-to-sale ratio study is determined for each sold property by dividing the assessed value by its sale price or time adjusted sale price.

International standards state that a group of properties is assessed at current value if the level of assessment lies between 0.90 – 1.10. The preferred measurement of the level of assessment is the median ASR for the group of properties being studied.[8]

The level of assessment (LoA) for different categories of properties can be compared against one another to ensure that they align and if so, the properties between each group are said to be equitably assessed. Groups of properties would be said to be inequitably assessed if there was a statistically significant difference between their respective levels of assessment (at least 5%).

Median ASRs and their 95% confidence intervals were calculated for groups of distance variables. The median always divides the data into two equal parts and is less affected by extreme ratios than other measures of central tendency. Because of these characteristics, the median is generally the preferred measure of central tendency and is used to determine LoA in this report.

[7] International Association of Assessing Officers, *Standard on Ratio Studies*, April 2013, pp. 53-54
[8] International Association of Assessing Officers, *Standard on Ratio Studies*, April 2013, pp. 13

When the calculated median is based on sample data, the result is called a point estimate, which is accurate for the sample but is only one indicator of the level of assessment in the population. Confidence intervals around the point estimate provide indicators of the reliability of the sample statistics as predictors of the overall level of appraisal of the population. Note that noncompliance with appraisal level standards cannot be determined without the use of confidence intervals or hypothesis tests9. A confidence interval consists of two numbers (upper and lower limits) that bracket a calculated measure of central tendency for the sample; there is a specified degree of confidence that the calculated upper and lower limits bracket the true measure of central tendency for the population.

MPAC looked at three different data elements in determining if equity exists:

1. Abutting a property with an IWT
2. Distance to closest IWT
3. Number of IWTs within each distance range

*1. Abutting a Property with an IWT*

**Table 5 – Abutting an IWT Sale Ratio Study**

| Assessment Update Year | Sales Count | LoA | 95% LCL | 95% UCL | Target LoA[10] | LoA within Target LoA | Confidence Intervals Overlap Target LoA | Corrective Action Required |
|---|---|---|---|---|---|---|---|---|
| **2012** | 32 | 1.002 | 0.929 | 1.121 | 0.95 – 1.05 | Yes | Yes | No |
| **2016** | 166 | 0.997 | 0.970 | 1.025 | 0.90 – 1.10 | Yes | Yes | No |

There are 166 sales of properties that abut an IWT. The level of assessment is 0.997. There is no inequity with regard to properties that abut an IWT.

*2. Distance to Closest IWT*

A breakdown of the 110,338 sales used in the analysis, by distance, follows:

[9] International Association of Assessing Officers, *Standard on Ratio Studies*, April 2013, p. 13

[10] MPAC adopted the IAAO Ratio Study standards for the 2016 assessment update, hence why the Target Level of Assessment (LOA) changed between 2012 and 2016

**Table 6 – Distance Grouping by Market Area**

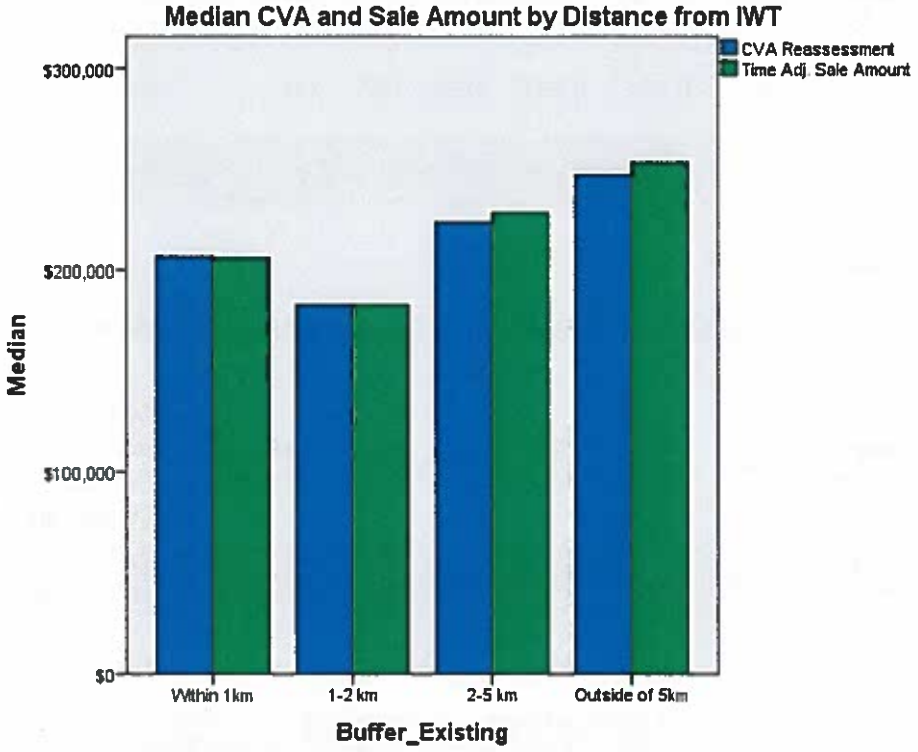
| Market Area | MPAC Region | < 1 km | 1-2 km | 2-5 km | > 5 km | Total |
|---|---|---|---|---|---|---|
| 01RR010 | 01 - Cornwall | 9 | 4 | 36 | 11,914 | 11,963 |
| 05RR030 | 05 – Kingston | 30 | 13 | 335 | 3,748 | 4,126 |
| 16RR030 | 16 - Barrie | 0 | 0 | 6 | 6,482 | 6,488 |
| 18RR010 | 18 – St. Catharines | 11 | 45 | 95 | 2,262 | 2,413 |
| 18WF010 | 18 – St. Catharines | 0 | 18 | 31 | 186 | 235 |
| 19RR010 | 19 – Hamilton | 0 | 8 | 38 | 1,742 | 1,788 |
| 20RR010 | 20 – Brantford | 247 | 351 | 1,230 | 6,961 | 8,789 |
| 22RR010 | 22 – Kitchener | 83 | 67 | 217 | 2,570 | 2,937 |
| 22UR020 | 22 – Kitchener | 0 | 0 | 689 | 3,149 | 3,838 |
| 22UR030 | 22 – Kitchener | 0 | 135 | 38 | 3,610 | 3,783 |
| 23RR010 | 23 – London | 13 | 89 | 284 | 7,156 | 7,542 |
| 23UR030 | 23 – London | 0 | 0 | 353 | 9,567 | 9,920 |
| 24RR010 | 24 – Goderich | 23 | 55 | 268 | 3,731 | 4,077 |
| 25RR010 | 25 – Owen Sound | 32 | 37 | 250 | 3,473 | 3,792 |
| 25UR010 | 25 – Owen Sound | 0 | 24 | 279 | 6,130 | 6,433 |
| 26RR010 | 26 – Chatham | 298 | 920 | 1,109 | 847 | 3,174 |
| 26RR030 | 26 – Chatham | 18 | 152 | 557 | 2,530 | 3,257 |
| 26UR010 | 26 – Chatham | 0 | 0 | 559 | 2,125 | 2,684 |
| 27RR010 | 27 – Windsor | 216 | 483 | 1,436 | 3,915 | 6,050 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 27UR070 | 27 – Windsor | 4 | 265 | 250 | 4,762 | 5,281 |
| 30RR010 | 30 - Sudbury | 0 | 4 | 17 | 1,883 | 1,904 |
| 31RR010 | 31 – Sault Ste Marie | 0 | 7 | 25 | 2,527 | 2,559 |
| 31UR010 | 31 – Sault Ste Marie | 0 | 12 | 31 | 4,180 | 4,223 |
| 45WF050 | 24 – Goderich<br>25 – Owen Sound<br>26 – Chatham | 0 | 2 | 596 | 1,162 | 1,760 |
| 78WF040 | 16 – Barrie<br>17 – Bracebridge<br>25 – Owen Sound<br>28 – North Bay | 0 | 0 | 22 | 1,300 | 1,322 |
| TOTAL | | 984 | 2,691 | 8,751 | 97,912 | 110,338 |

*Refer to Table 1 for market area descriptions.*

Comparing the median assessed value to the median time adjusted sale amount by the distance categories shows that the figures are very similar. Consider Figure 2 below. To make this comparison, one must consider the height of the blue and green bars for each of the distance groupings. Similar heights indicate that the median sale price (adjusted to January 1, 2016) and the median assessed value are similar. Comparisons between the different distance groupings should not be made because this chart does not control for differences in the housing stock of each grouping. These differences could be physical (building size or age) or differences due to location (e.g., homes further than 5km from an IWT being closer to urban centers). The results for all sales are provided in Figure 2.

**Figure 2 – Comparison of CVA and Time Adjusted Sale Price by Distance Groupings**




Appendix B – Current Value Assessment and Sale Amount Bar Charts contains a similar bar chart for each market area.

The following tables compare the 2012 results to the 2016 results.

*2. Distance to Closest IWT All Sales*

2012 Assessment Update

**Table 7 – Distance Grouping Sale Ratio Study 2012 Current Value Assessment**

| Distance Grouping | Sales Count | LoA | 95% LCL | 95% UCL | Target LoA | LoA within Target LoA | Confidence Intervals Overlap Target LoA | Corrective Action Required |
|---|---|---|---|---|---|---|---|---|
| Within 1 km | 279 | 1.034 | 1.011 | 1.057 | 0.95 – 1.05 | Yes | Yes | No |
| 1 km to 2 km | 989 | 0.989 | 0.979 | 1.000 | 0.95 – 1.05 | Yes | Yes | No |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 2 km to 5 km | 3,063 | 0.992 | 0.988 | 0.997 | 0.95 – 1.05 | Yes | Yes | No |
| Outside 5 km | 37,093 | 0.992 | 0.991 | 0.993 | 0.95 – 1.05 | Yes | Yes | No |
| OVERALL | 41,424 | 0.992 | 0.991 | 0.994 | 0.95 – 1.05 | Yes | Yes | No |

2016 Assessment Update

**Table 8 – Distance Grouping Sale Ratio Study 2016 Current Value Assessment**

| Distance Grouping | Sales Count | LoA | 95% LCL | 95% UCL | Target LoA | LoA within Target LoA | Confidence Intervals Overlap Target LoA | Corrective Action Required |
|---|---|---|---|---|---|---|---|---|
| Within 1 km | 984 | 1.007 | 0.993 | 1.019 | 0.90 – 1.10 | Yes | Yes | No |
| 1 km to 2 km | 2,691 | 0.995 | 0.989 | 1.003 | 0.90 – 1.10 | Yes | Yes | No |
| 2 km to 5 km | 8,751 | 0.977 | 0.974 | 0.980 | 0.90 – 1.10 | Yes | Yes | No |
| Outside 5 km | 97,912 | 0.974 | 0.973 | 0.974 | 0.90 – 1.10 | Yes | Yes | No |
| OVERALL | 110,338 | 0.974 | 0.974 | 0.975 | 0.90 – 1.10 | Yes | Yes | No |

The level of appraisal for properties within one kilometre of an IWT has fallen while it has increased slightly for properties with IWTs one to two kilometres away. The difference between both groups and properties outside five kilometres of an IWT is statistically significant (the confidence intervals don't overlap). The difference between sales within one kilometre and sales outside five kilometres is 3.3% (the confidence intervals are 1.9% apart). The difference between sales one to two kilometres from an IWT and outside five kilometres is 2.1% (the confidence intervals are 1.5% apart). Both these differences are well within IAAO standards for equity between groups of properties.

Appendix C – Distance Grouping 2016 Sale Ratio Study by Market Area contains assessment-to-sale ratio data for each Market Area.

*Distance to Closest IWT - Rural Properties Only*

2012 Assessment Update

**Table 9 – Distance Groupings – Rural Market Sale Ratio Study 2012 Current Value Assessment**

| Distance Grouping | Sales Count | LoA | 95% LCL | 95% UCL | Target LoA | LoA within Target LoA | Confidence Intervals Overlap Target LoA | Corrective Action Required |
|---|---|---|---|---|---|---|---|---|
| Within 1 km | 278 | 1.034 | 1.011 | 1.055 | 0.95 – 1.05 | Yes | Yes | No |
| 1 km to 2 km | 715 | 0.996 | 0.982 | 1.008 | 0.95 – 1.05 | Yes | Yes | No |
| 2 km to 5 km | 2,284 | 0.999 | 0.993 | 1.005 | 0.95 – 1.05 | Yes | Yes | No |
| Outside 5 km | 23,135 | 0.995 | 0.993 | 0.997 | 0.95 – 1.05 | Yes | Yes | No |
| OVERALL | 26,412 | 0.996 | 0.994 | 0.997 | 0.95 – 1.05 | Yes | Yes | No |

2016 Assessment Update

**Table 10 – Distance Grouping – Rural Market Sale Ratio Study 2016 Current Value Assessment**

| Distance Grouping | Sales Count | LoA | 95% LCL | 95% UCL | Target LoA | LoA Within Target LoA | Confidence Intervals Overlap Target LoA | Corrective Action Required |
|---|---|---|---|---|---|---|---|---|
| Within 1 km | 980 | 1.007 | 0.992 | 1.019 | 0.90 – 1.10 | Yes | Yes | No |
| 1 km to 2 km | 2,235 | 0.999 | 0.992 | 1.007 | 0.90 – 1.10 | Yes | Yes | No |
| 2 km to 5 km | 5,903 | 0.986 | 0.982 | 0.990 | 0.90 – 1.10 | Yes | Yes | No |
| Outside 5 km | 61,741 | 0.976 | 0.974 | 0.977 | 0.90 – 1.10 | Yes | Yes | No |
| OVERALL | 70,859 | 0.977 | 0.976 | 0.978 | 0.90 – 1.10 | Yes | Yes | No |

The 2016 results for rural properties are similar to the results using all sales. The statistics are virtually unchanged.

*3. Number of IWTs within each Distance Range*

For the 2016 study, MPAC examined how the level of assessment changed when the number of IWTs within each grouping changed to determine whether the concentration of IWTs around a residence impacts the level of assessment. The results are provided below.

**Table 11 – Number of IWTs within 1 km Sale Ratio Study 2016 Current Value Assessment**

| IWT Count | Sales Count | LoA | 95% LCL | 95% UCL | Target LoA | LoA within Target LoA | Confidence Intervals Overlap Target LoA | Corrective Action Required |
|---|---|---|---|---|---|---|---|---|
| 1-3 IWTs | 900 | 1.003 | 0.990 | 1.016 | 0.90 – 1.10 | Yes | Yes | No |
| 4-6 IWTs | 80 | 1.022 | 0.990 | 1.053 | 0.90 – 1.10 | Yes | Yes | No |
| 7-9 IWTs | 4 | 1.002 | 0.934 | 1.034 | 0.90 – 1.10 | Yes | Yes | No |
| OVERALL | 984 | 1.007 | 0.993 | 1.019 | 0.90 – 1.10 | Yes | Yes | No |

The level of assessment is fairly consistent within one kilometre of an IWT. For properties with four to six IWTs within one kilometre, the ASR is 1.022. There are 80 sales in this grouping.

a. Number of IWTs within one to two kilometres of a Residence (properties within one kilometre of an IWT filtered)

**Table 12 – Number of IWTs within 1 km to 2 km Range Sale Ratio Study 2016 Current Value Assessment**

| IWT Count | Sales Count | LoA | 95% LCL | 95% UCL | Target LoA | LoA within Target LoA | Confidence Intervals Overlap Target LoA | Corrective Action Required |
|---|---|---|---|---|---|---|---|---|
| 1-3 IWTs | 2,062 | 0.997 | 0.990 | 1.005 | 0.90 – 1.10 | Yes | Yes | No |
| 4-6 IWTs | 529 | 0.983 | 0.968 | 1.011 | 0.90 – 1.10 | Yes | Yes | No |
| 7-9 IWTs | 54 | 1.020 | 0.957 | 1.111 | 0.90 – 1.10 | Yes | Yes | No |
| 10-15 IWTs | 39 | 0.971 | 0.937 | 1.057 | 0.90 – 1.10 | Yes | Yes | No |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 16-20 IWTs | 4 | 0.907 | N/A11 | N/A | 0.90 – 1.10 | Yes | Yes | No |
| 21-30 IWTs | 3 | 1.172 | N/A | N/A | 0.90 – 1.10 | Yes | Yes | No |
| OVERALL | 2,691 | 0.995 | 0.989 | 1.003 | 0.90 – 1.10 | Yes | Yes | No |

Any properties with IWTs within one kilometer are filtered for this table. There appears to be no pattern for properties that have IWTs within one to two kilometres. The median for properties with seven to nine IWTs is 1.020 but the lower confident limit is 0.957. There are a very small number of observations beyond 15 IWTs which has resulted in median levels of assessment diverging from 1.00. There are too few sales to calculate confidence intervals for these two groups of turbine counts.

b. Number of IWTs within two to five kilometres of a Residence (properties within two kilometres of an IWT filtered)

**Table 13 – Number of IWTs within 2 km to 5 km Sale Ratio Study 2016 Current Value Assessment**

| IWT Count | Sales Count | LoA | 95% LCL | 95% UCL | Target LoA | LoA Within Target LoA | Confidence Intervals Overlap Target LoA | Corrective Action Required |
|---|---|---|---|---|---|---|---|---|
| 1-3 IWTs | 3,317 | 0.976 | 0.971 | 0.980 | 0.90 – 1.10 | Yes | Yes | No |
| 4-6 IWTs | 2,264 | 0.975 | 0.969 | 0.980 | 0.90 – 1.10 | Yes | Yes | No |
| 7-9 IWTs | 997 | 0.988 | 0.977 | 0.998 | 0.90 – 1.10 | Yes | Yes | No |
| 10-15 IWTs | 1,795 | 0.976 | 0.969 | 0.983 | 0.90 – 1.10 | Yes | Yes | No |
| 16-20 IWTs | 204 | 0.989 | 0.957 | 1.017 | 0.90 – 1.10 | Yes | Yes | No |
| 21-30 IWTs | 145 | 0.992 | 0.961 | 1.040 | 0.90 – 1.10 | Yes | Yes | No |

[11] "When the sample size is five or fewer, the 95 percent confidence interval is nonexistent. When there are six to eight ratios, the lower and upper 95 percent confidence limits equal the lowest and highest ratios in the sample, and caution is advised." Gloudemans, Robert and Richard Almy, *Fundamentals of Mass Appraisal*, International Association of Assessing Officers, Kansas City, Missouri, 2011, p. 366.

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 31-40 IWTs | 13 | 0.998 | 0.886 | 1.112 | 0.90 – 1.10 | Yes | Yes | No |
| 41+ IWTs | 16 | 1.034 | 0.982 | 1.103 | 0.90 – 1.10 | Yes | Yes | No |
| OVERALL | 8,751 | 0.977 | 0.974 | 0.980 | 0.90 – 1.10 | Yes | Yes | No |

Any properties with IWTs within two kilometres are filtered for this table. The median for properties with more than 40 IWTs within five kilometres is 1.034 with 16 observations. All the lower confidence intervals are below 1.00.

c. Properties more than five kilometres from an IWT (Control Group)

**Table 14 – Sale Ratio Study for Properties with no IWTs within 5km (Control Group) 2016 Current Value Assessment**

| IWT Count | Sales Count | LoA | 95% LCL | 95% UCL | Target LoA | LoA Within Target LoA | Confidence Intervals Overlap Target LoA | Corrective Action Required |
|---|---|---|---|---|---|---|---|---|
| No IWTs within 5km | 97,912 | 0.974 | 0.973 | 0.974 | 0.90 – 1.10 | Yes | Yes | No |

These are the properties with no IWTs within five kilometres. They are being shown for comparison purposes.

Appendix D –Number of IWTs by Distance Grouping 2016 Sale Ratio Study by Market Area contains assessment-to-sale ratio data for each market area.

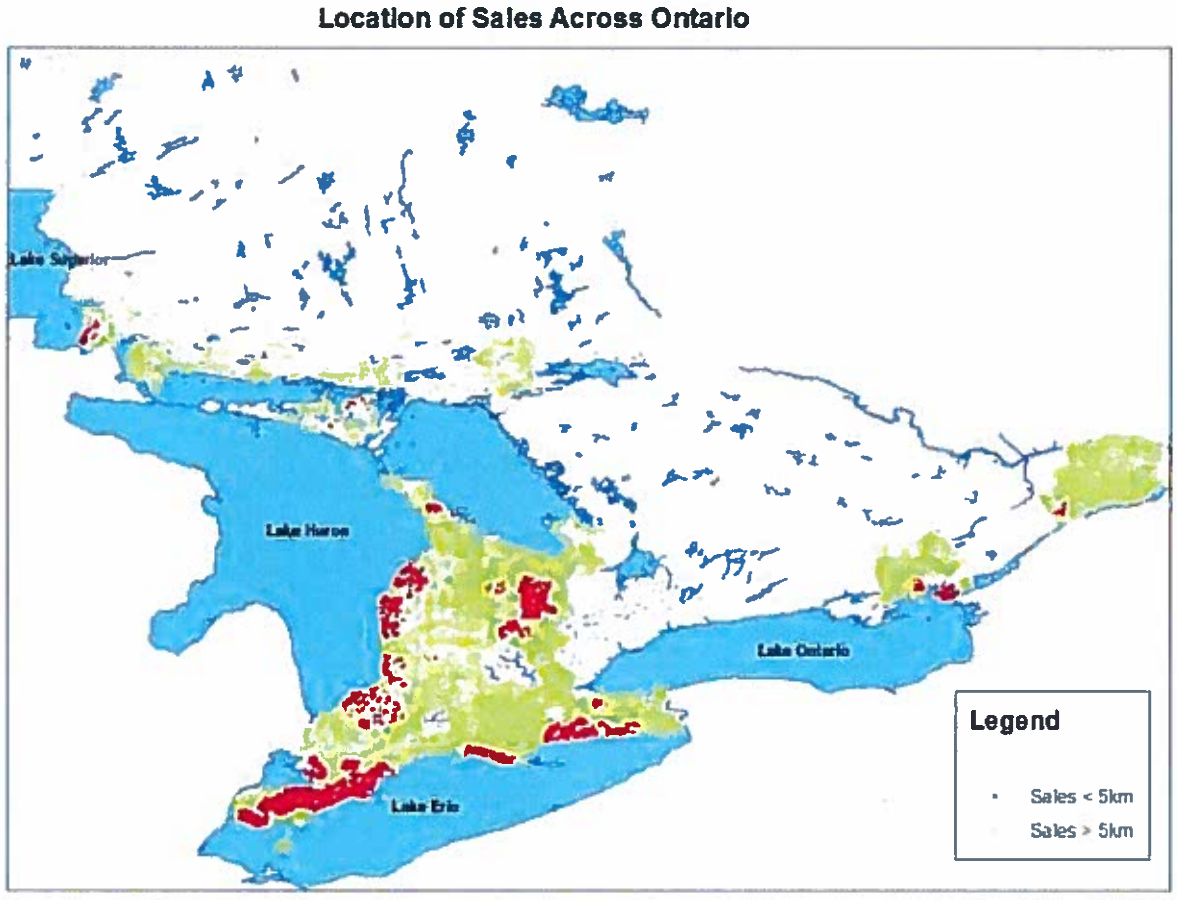
## County Results

The statistics below were run at the county level to determine whether there were any patterns across the province. Overall, the results were very consistent with two exceptions: rural areas of Huron and Perth Counties and Grey and Bruce Counties. For properties in Huron/Perth within one kilometre of one or more IWTs the median sale ratio was low at 0.844. For properties in Grey/Bruce within one kilometre of one or more IWTs the median was high at 1.03. This was consistent regardless of the number of IWTs in both cases. Given the close geographical proximity of these counties, the results seem unusual and will require further review.

**Table 15 – Sale Ratio Study for Properties within 1 km of IWTs - Regions 24 and 25 2016 Current Value Assessment**

| County | Sales Count | LoA | 95% LCL | 95% UCL | Target LoA | LoA within Target LoA | Confidence Intervals Overlap Target LoA | Corrective Action Required |
|---|---|---|---|---|---|---|---|---|
| Huron/Perth | 23 | 0.844 | 0.768 | 0.949 | 0.90 – 1.10 | No | Yes | No |
| Grey/ Bruce | 32 | 1.030 | 0.929 | 1.081 | 0.90 – 1.10 | Yes | Yes | No |

**Figure 3 – Location of Sales Used in the Analysis (Red within 5 km of an IWT, Green outside 5 km of an IWT)**




## Summary of Findings

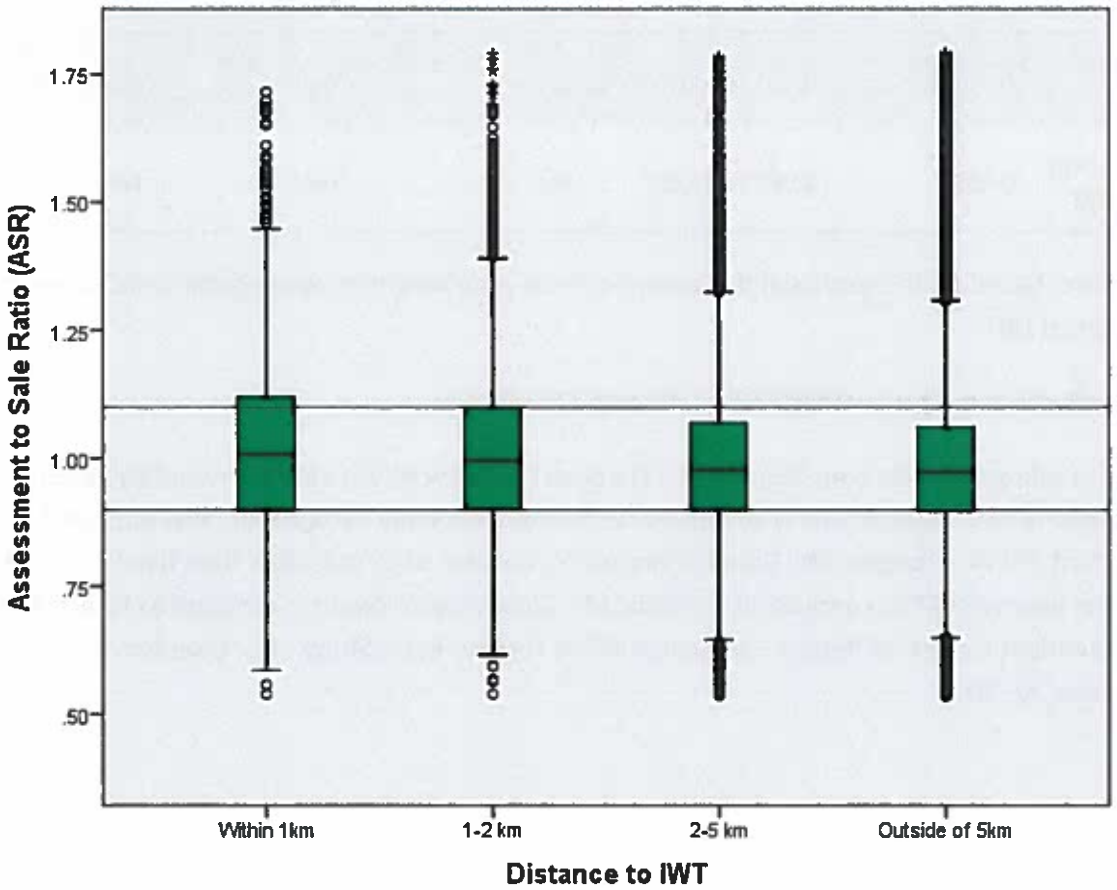
Section 9.2.1 of the International Association of Assessing Officers (IAAO) Standard on Ratio Studies states:

*"The level of appraisal of each stratum (class, neighborhood, age group, market areas, and the like) should be within 5 percent of the overall level of appraisal of the jurisdiction. For example, if the overall level of appraisal of the jurisdiction is 1.00, but the appraisal level for residential property is 0.93 and the appraisal level for commercial property is 1.06, the jurisdiction is not in compliance with this requirement. This test should be applied only to strata subject to compliance testing. It can be concluded that this standard has been met if 95 percent (two-tailed) confidence intervals about the chosen measures of central tendency for each of the strata fall within 5 percent of the overall level of appraisal calculated for the jurisdiction. Using the above example, if*

*the upper confidence limit for the level of residential property is 0.97 and the lower confidence limit for commercial property is 1.01, the two strata are within the acceptable range."*

Sales within one kilometre of an IWT showed a level of appraisal that was higher than the median assessment-to-sale ratio of sales further away (median assessment-to-sale ratio of 1.007). The lower confidence level of sales within one kilometre of an IWT is 0.993. This is well within 5% of the overall level of appraisal (0.993 – 0.974 = 1.9%). Sales within one to two kilometres of an IWT showed a level of appraisal that was also higher than the median assessment-to-sale ratio of sales further away (median assessment-to-sale ratio of 0.995). The lower confidence level of sales within one to two kilometres of an IWT is 0.989. This is also well within 5% of the overall level of appraisal (0.989 – 0.974 = 1.5%). So, although sales within two kilometres of an IWT do have a level of assessment above the overall level, the difference is not great enough to require value adjustment according to IAAO guidelines. These findings are illustrated in the following box plot.

**Figure 4 – Assessment-to-Sale Ratio by Distance Grouping**



The dark line within each box represents the median ASR. The lower and upper ends of the box represent the 25th and 75th percentiles, respectively. This box plot illustrates that the median assessment-to-sale ratio for sales within one kilometre of an IWT is slightly higher than the other groups, but the boxes for all the groups overlap.

In the IAAO Standard on ratio studies from 2013[12], an equity decision-making matrix is provided to allow a jurisdiction to determine if equity exists between groups of properties. This matrix has been populated for the two scenarios described above. The performance standard range is 0.90 to 1.10. Note that if the point estimate is outside of the performance standard range but the confidence interval does overlap the range, action is not required.

**Table 16 – Decision Making Matrix**

| Scenario | Point Estimate | Confidence Interval (CI) Width | CI Overlaps Performance Standard Range | Point Estimate in Performance Standard Range | Action Required |
|---|---|---|---|---|---|
| <1 km to IWT | 1.007 | 0.993 to 1.019 | Yes | Yes | No |
| 1 km - 2 km to an IWT | 0.995 | 0.989 to 1.003 | Yes | Yes | No |

Therefore, based on the results of this analysis, there is no inequity with regards to distance to the nearest IWT.

This finding is consistent with MPAC's 2008 and 2012 studies.

MPAC's findings are also consistent with a third party review of this study conduct by Robert J. Gloudemans. Mr. Gloudemans is an independent internationally-recognized mass appraisal consultant. MPAC provided Mr. Gloudemans with a dataset of all sales less than five kilometres from the nearest IWT to conduct his analysis. *Mr. Gloudemans' report is included as* Appendix A – Independent Review of Report – Industrial Wind Turbine Ratio Study - R.J. Gloudemans, November 22, 2016.

[12] International Association of Assessing Officers, *Standard on Ratio Studies*, April 2013, p. 35

## List of Report Appendices

**Appendix A** – Independent Review of Report – Industrial Wind Turbine Ratio Study - R.J. Gloudemans, November 22, 2016

**Appendix B** – Current Value Assessment and Sale Amount Bar Charts

**Appendix C** – Distance Grouping 2016 Sale Ratio Study by Market Area

**Appendix D** – Number of industrial wind turbines by Distance Grouping 2016 Sale Ratio Study by Market Area

## Glossary of Terms

**assessment roll** – An annual listing provided to each taxing authority in the Province of Ontario containing, among other things, the current value and tax classification of each property within the jurisdiction.

**assessment-to-sale ratio (ASR)** – The ratio obtained by dividing the assessed value of a property by the time-adjusted sale price of a property.

**base year** – The year that an estimate of a property's value is based on.

**Current Value Assessment (CVA)** – The estimated value of a property based on a specific date.

**direct comparison approach (also known as Sales Comparison Approach)** – An approach to valuing a property that estimates the current value of a subject property by adjusting the sale price of comparable properties for differences between the comparable properties and the subject property.

**industrial wind turbine (IWT)** – A wind turbine used to generate at least 1.5 MW of electricity.

**geographic coordinates** – A set of two numbers that reference the latitude and longitude of a point on the Earth.

**market area** – A market area is defined as a geographic area, usually contiguous, subject to the same economic influences, where properties tend to increase or decrease in value together.

**market model** – Geographic areas subject to the same economic influences.

**mass appraisal** – The valuation of a group of properties as of a given date using standardized processes, employing common data, and allowing for statistical testing.

**median** – The median of a group of numbers is the middle number after they have been sorted from lowest to highest. If you have an odd number of cases, the median is the middle value. If you have an even number of cases, the median is the value midway between the two middle values. The median, in comparison to the mean, is less sensitive to extreme values.

**megawatt (MW)** – A unit of measure in energy generation or consumption.

**Municipal Property Assessment Corporation (MPAC)** – A body responsible for determining the correct market value and tax classification for all properties in the Province of Ontario, based on current value assessment.

**regression analysis** – A statistical technique used to analyze data in order to predict the value of one variable, such as market value, based on known data (e.g., living area, lot size, quality, location, etc.).

**For more information about MPAC and how MPAC assesses properties, visit mpac.ca.**

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# Industrial Wind Turbine Ratio Study

**Robert J. Gloudemans**

**November 22, 2016**

At the request of the Municipal Property Assessment Corporation (MPAC), the author conducted an analysis of residential sales within 5 kilometers of industrial wind turbines. The objective of the project was to determine the impact of location near a wind turbine on residential property values.

The analysis used 110,143 improved residential sales in 14 regions and 25 market areas that occurred from January 2012 through October 206 (58 months). All the sales were adjusted to the assessment date, 1 January 2016. The table below shows the distribution of the sales by property type:

**PropertyType**

| | | Frequency | Percent |
|---|---|---|---|
| Valid | Attached residential | 7319 | 6.6 |
| | Improved residential not on water | 93019 | 84.5 |
| | Improved residential on water | 7712 | 7.0 |
| | Multi family residential | 2093 | 1.9 |
| | Total | 110143 | 100.0 |

The dependent variable in the analysis was assessment-to-sales ratios in which 2016 values were divided by time-adjusted sales prices. The models that produced 2016 values did not contain variables related to proximity near wind turbines. Thus, the relevant question is to what extent ratios on those properties are too high because of the absence of such adjustments. Independent variables included the following:

- A binary variable for abutting a property with a wind turbine
- Binary variables for being within 1, 2, and 5km of a wind turbine
- The number of wind turbines within 1, 2, and 5km
- The combined capacity in kilowatts of wind turbines within 1, 2, and 5km

The table below shows the number of sales and median and mean sales ratio of properties abutting a wind turbine (165 sales), within 1km (1,016 sales), within 2km (3,058 sales), within 5km (10,622 sales), and more than 5 km from a wind turbine (95,282 sales). Although the medians for the first four groups are all higher than for those more than 5km away, the differences are all

modest: between less than 1% in the case of those within 5km and just over 3% for those within one kilometer. According to the IAAO *Standard on Ratio Studies* (2013), median ratios for various property groups should not be provably more than 5% from the overall median ratio (.9743 in this case). As can be seen, the median ratios for all five groups are well within this threshold.

Figure 1 – Sale Counts and Summary Ratios

RATIO

| PROXIMITY_IWT | N | Median | Mean | Minimum | Maximum |
|---|---|---|---|---|---|
| 0 Abuts | 165 | 1.0006 | 1.0193 | .63 | 1.72 |
| 1 1 km | 1016 | 1.0077 | 1.0215 | .54 | 1.74 |
| 2 2 km | 3058 | .9940 | 1.0134 | .54 | 1.79 |
| 5 5 km | 10622 | .9770 | .9958 | .54 | 1.78 |
| 6 >5 km | 95282 | .9733 | .9895 | .54 | 1.79 |
| Total | 110143 | .9743 | .9911 | .54 | 1.79 |

Figure 2, which presents the median ratios in the form of a bar chart, illustrates the closeness of the assessment levels.

Figure 2 – Bar Chart of Median Ratios

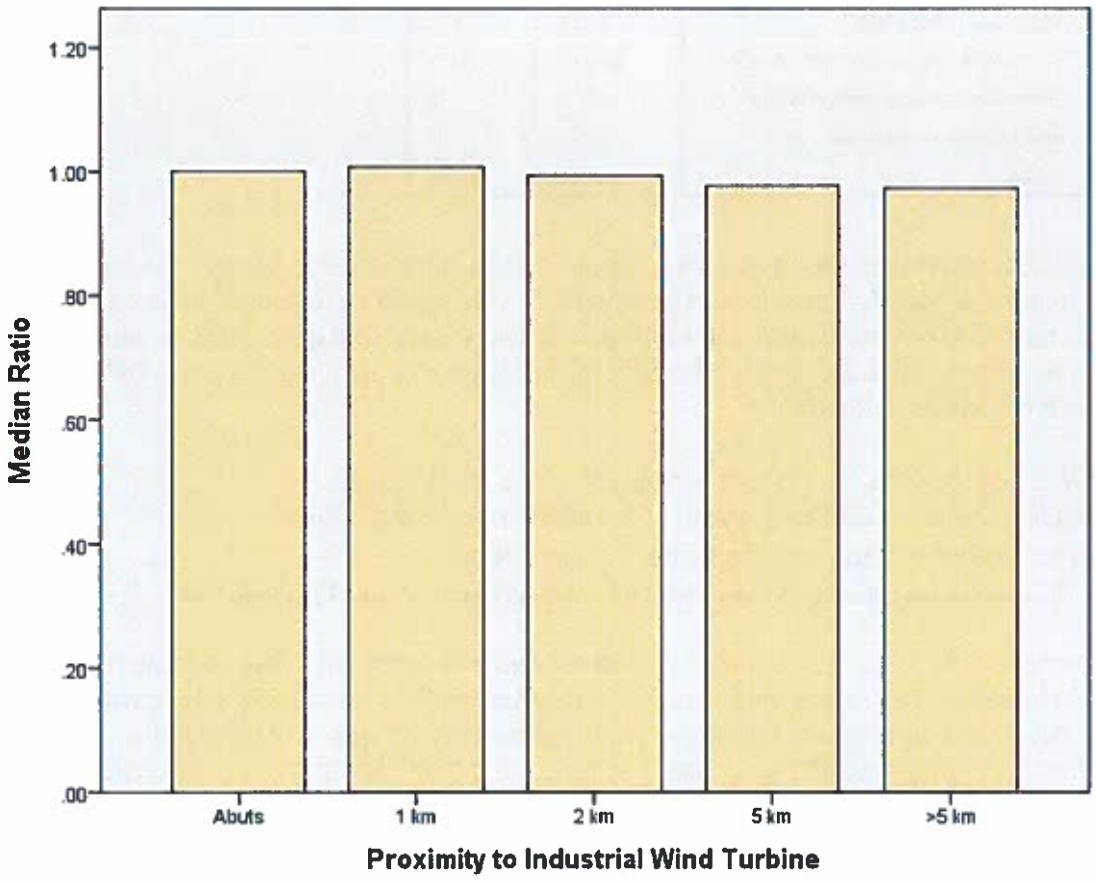
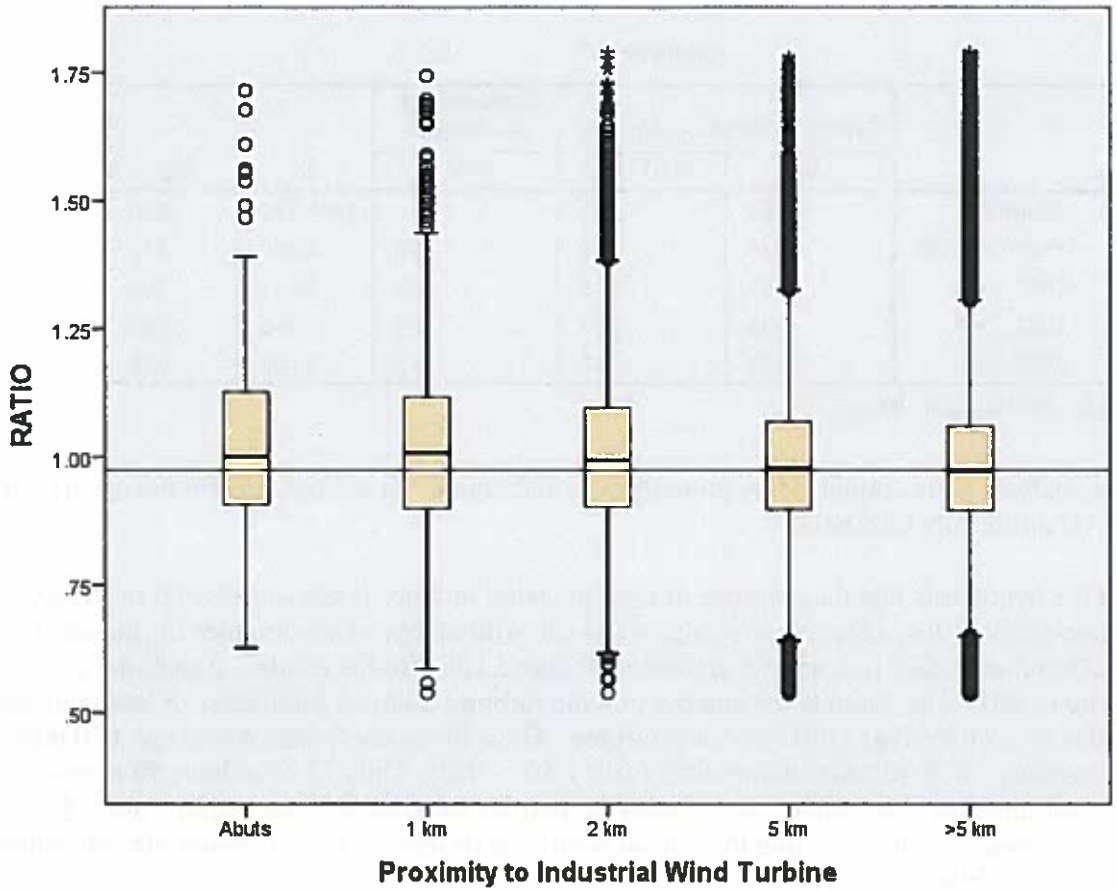


Figure 3 contains a box plot of the ratios. The boxes contain the middle 50% of observations and the black horizontal lines toward the middle of each box represent the median ratios. The boxes are closely aligned with only modest differences among the medians.

Figure 3 – Box Plot of Ratios




To further evaluate uniformity, a regression analysis was performed in which assessment ratios were regressed on binary variables (coded 0 or 1) for abutting a wind turbine and being within 1, 2, or 5 kilometers. Figure 4 presents the results. The Adjusted R-Square is .001, meaning that the four variables for proximity to a wind turbine together explain only 0.1% of the variation in assessment ratios. Consistent with the previous analyses, the variables for abutting or within 1 kilometer of a wind turbine indicate differences of about 3% with lesser differences for greater distances.

Figure 4 – Regression Analysis for Presence of Wind Turbines

**Model Summary**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|---|---|---|---|---|
| 1 | .034[a] | .001 | .001 | .15575 |

a. Predictors: (Constant), DIST_5km, PropAbutsIWT, DIST_1km, DIST_2km

**Coefficients[a]**

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | .990 | .001 | | 1961.172 | .000 |
| | PropAbutsIWT | .030 | .012 | .007 | 2.450 | .014 |
| | DIST_1km | .032 | .005 | .020 | 6.511 | .000 |
| | DIST_2km | .024 | .003 | .025 | 8.345 | .000 |
| | DIST_5km | .006 | .002 | .012 | 3.960 | .000 |

a. Dependent Variable: RATIO

Similar analyses were conducted by property type and region. In no instance did the results fail the IAAO uniformity threshold.

To test the hypothesis that the presence of multiple wind turbines is associated with relatively high assessment ratios, a regression analysis was run with independent variables for the number of wind turbines within 1, 2, and 5 kilometers. Figure 5 contains the results. Again, the adjusted R-Square is .001. The variable for number of wind turbines within 5 kilometers or less indicates that ratios rise, on average, .0012 for each turbine. Thus, for example, ratios average .060 higher for the presence of 50 turbines within 5km (.012 x 50 = .060). Only 72 sales have 50 or more turbines within 5km. The other two variables for number of wind turbines within 1 and 2 kilometers are insignificant, indicating there is no additional difference if the turbines are concentrated closer to a subject property.

Figure 5 – Regression Analysis for Number of Wind Turbines Within 1, 2, and 5km

**Model Summary**

Model: 3

| R | R Square | Adjusted R Square | Std. Error of the Estimate |
|---|---|---|---|
| .038[c] | .001 | .001 | .15572 |

c. Predictors: (Constant), IWT_Count_5km_sum

**Coefficients[a]**

Model: 3

| | Unstandardized Coefficients | | Standardized Coefficients | | |
|---|---|---|---|---|---|
| | B | Std. Error | Beta | t | Sig. |
| (Constant) | .989 | .000 | | 2031.071 | .000 |
| IWT_Count_5km_sum | .0012 | .000 | .038 | 12.739 | .000 |

a. Dependent Variable: RATIO

**Excluded Variables**

Model: 3

| | Beta In | t | Sig. | Partial Correlation | Collinearity Statistics |
|---|---|---|---|---|---|
| | | | | | Tolerance |
| IWT_Count_1km_sum | -.002 | -.611 | .541 | -.002 | .770 |
| IWT_Count_2km_sum | -.006 | -1.362 | .173 | -.004 | .474 |

A similar analysis was performed for the total capacity in kilowatts of turbines within 1, 2, and 5 kilometers. Figure 5 contains the results. The adjusted R-Square is slightly higher at .002 and, consistent with the prior analysis, the only variable significant in the model is the total capacity of wind turbines within 5km. The variable has a coefficient of .0006. Thus, if total capacity were 100kv, ratios would be .060 higher than if total capacity were 0 (no wind turbines). There are only 39 sales for which the total capacity of wind turbines within 5km or less is 100kv or more.

Figure 6 – Regression Analysis for Total Capacity of Wind Turbines Within 1, 2, and 5km

**Model Summary**

Model: 3

| R | R Square | Adjusted R Square | Std. Error of the Estimate |
|---|---|---|---|
| .040[c] | .002 | .002 | .15571 |

c. Predictors: (Constant), Capacity_Total_5km_sum

**Coefficients[a]**

Model: 3

| | Unstandardized Coefficients | | Standardized Coefficients | | |
|---|---|---|---|---|---|
| | B | Std. Error | Beta | t | Sig. |
| (Constant) | .989 | .000 | | 2031.583 | .000 |
| Capacity_Total_5km_sum | .0006 | .000 | .040 | 13.248 | .000 |

a. Dependent Variable: RATIO

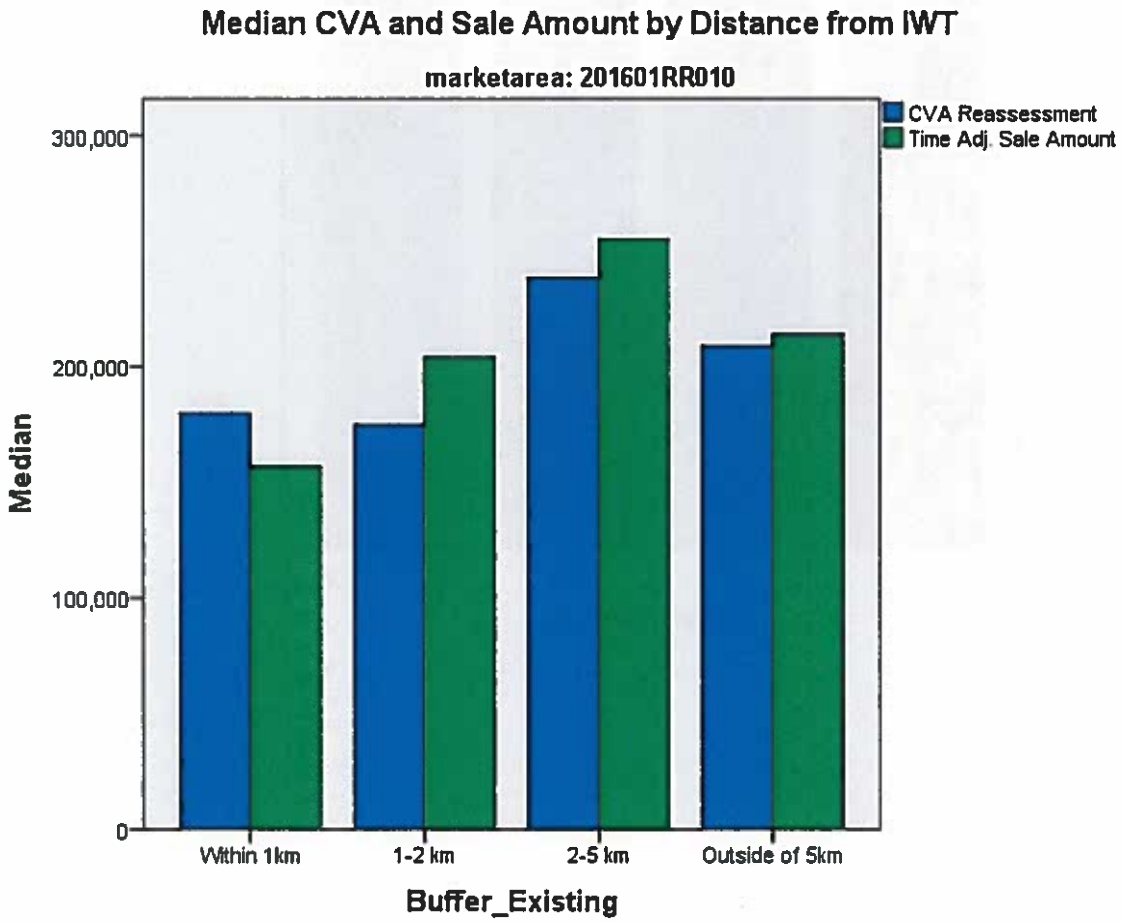
**Excluded Variables**

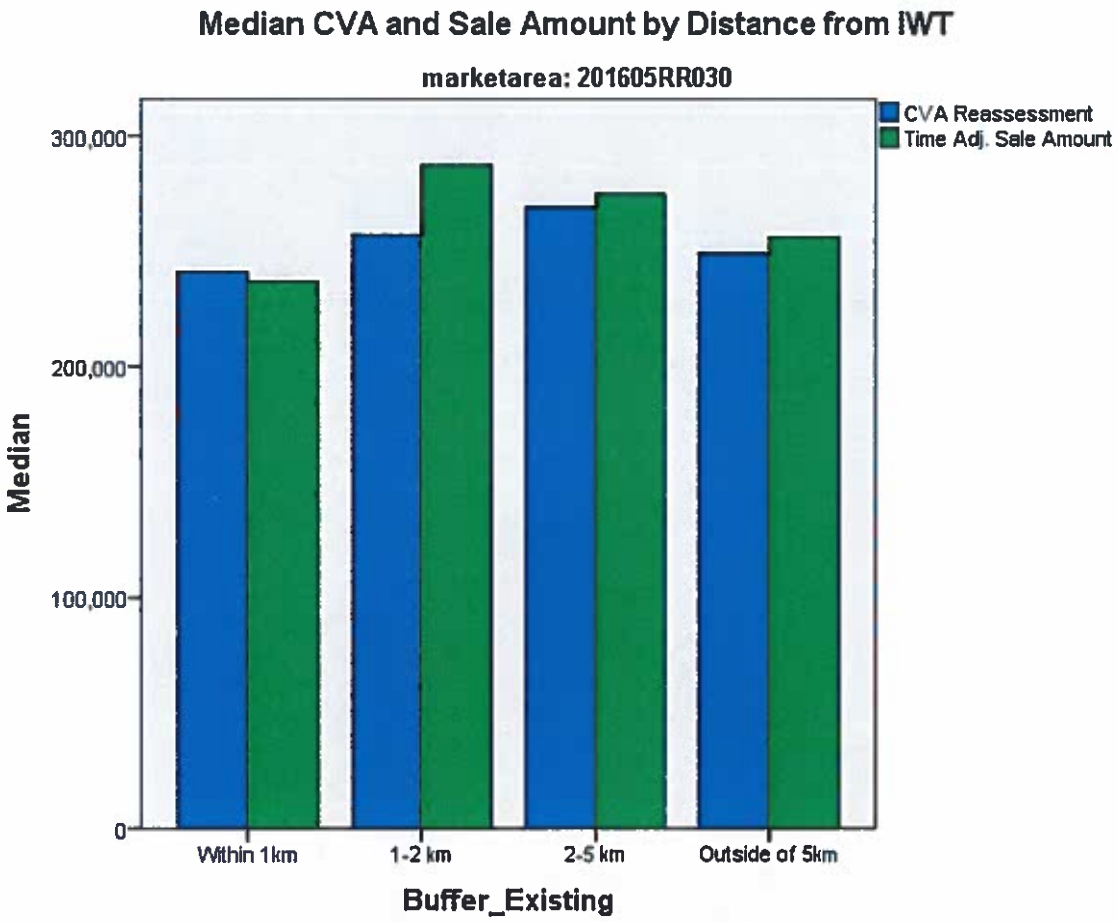
Model: 3

| | Beta In | t | Sig. | Partial Correlation | Collinearity Statistics |
|---|---|---|---|---|---|
| | | | | | Tolerance |
| Capacity_Total_1km_sum | -.002 | -.578 | .563 | -.002 | .775 |
| Capacity_Total_2km_sum | -.006 | -1.268 | .205 | -.004 | .468 |

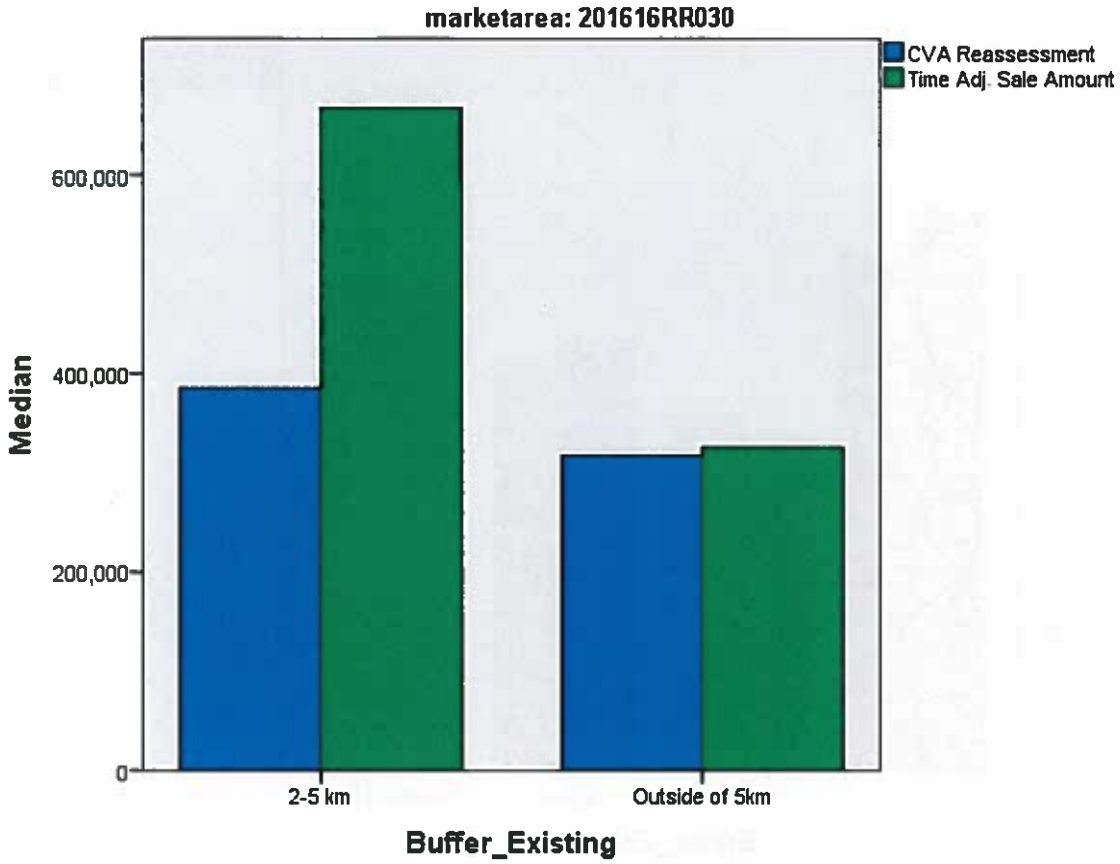
In conclusion, properties located near industrial wind turbines are, on average, assessed slightly higher than other properties of the same type in the same geographic area but the differences are minimal (3% or less) and well within IAAO standards. The differences are slightly higher (over 5%) for properties near heavy concentrations of turbines. However, such properties constitute no more than 1% of those within 5km of a wind turbine.

## Appendix B - Current Value Assessment and Sale Amount Bar Charts

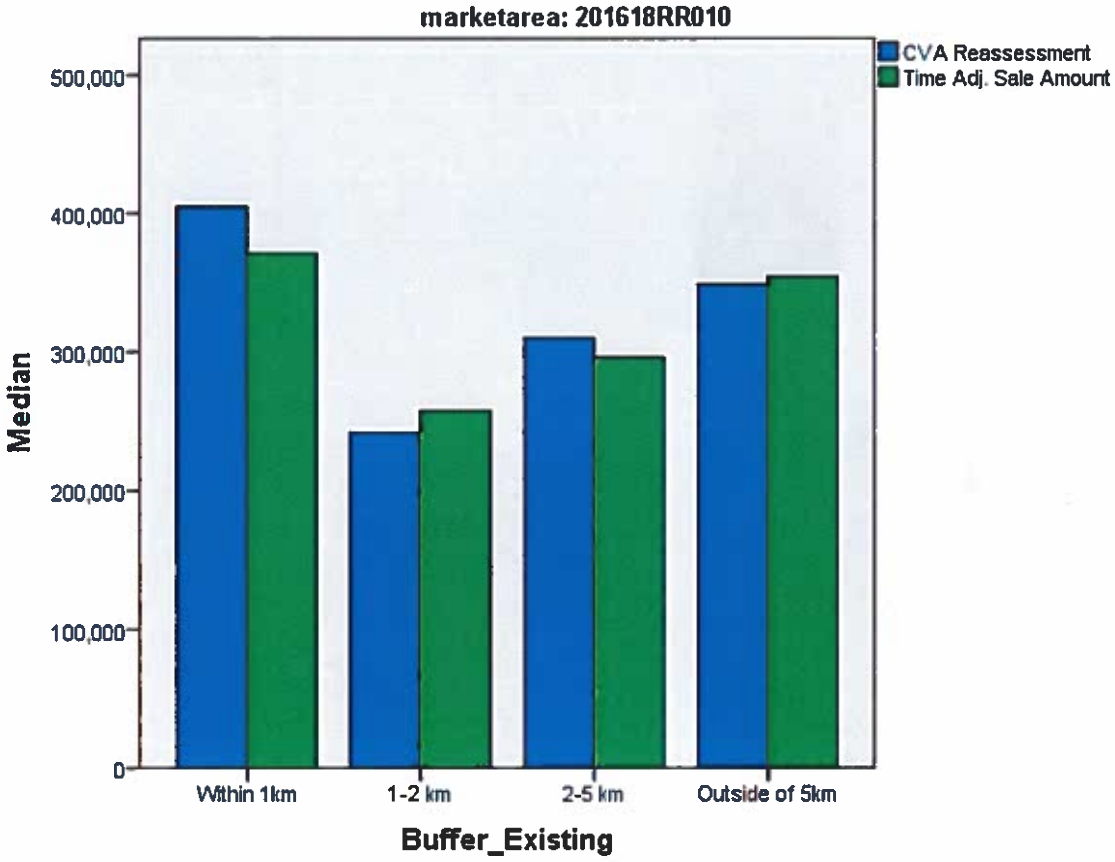



Median CVA and Sale Amount by Distance from IWT
marketarea: 201605RR030
CVA Reassessment
Time Adj. Sale Amount
300,000
200,000
100,000
0
Median
Within 1km
1-2 km
2-5 km
Outside of 5km
Buffer_Existing

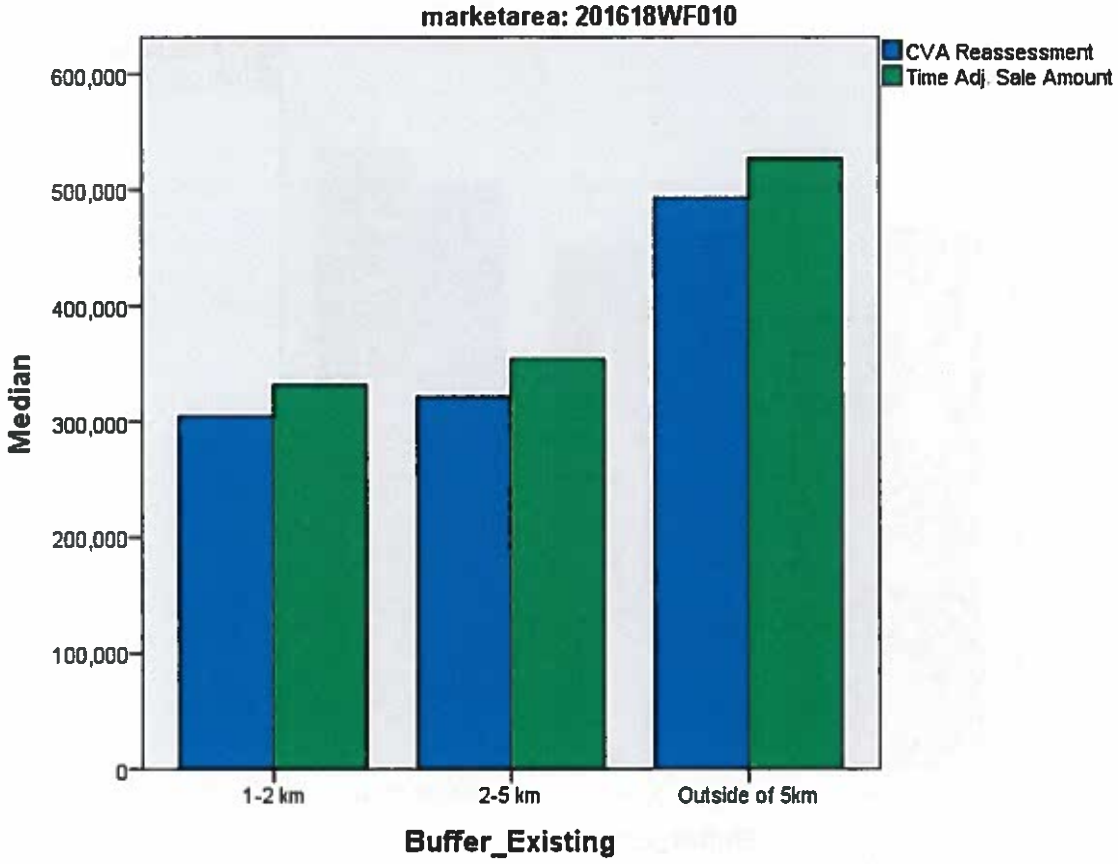
## Median CVA and Sale Amount by Distance from IWT



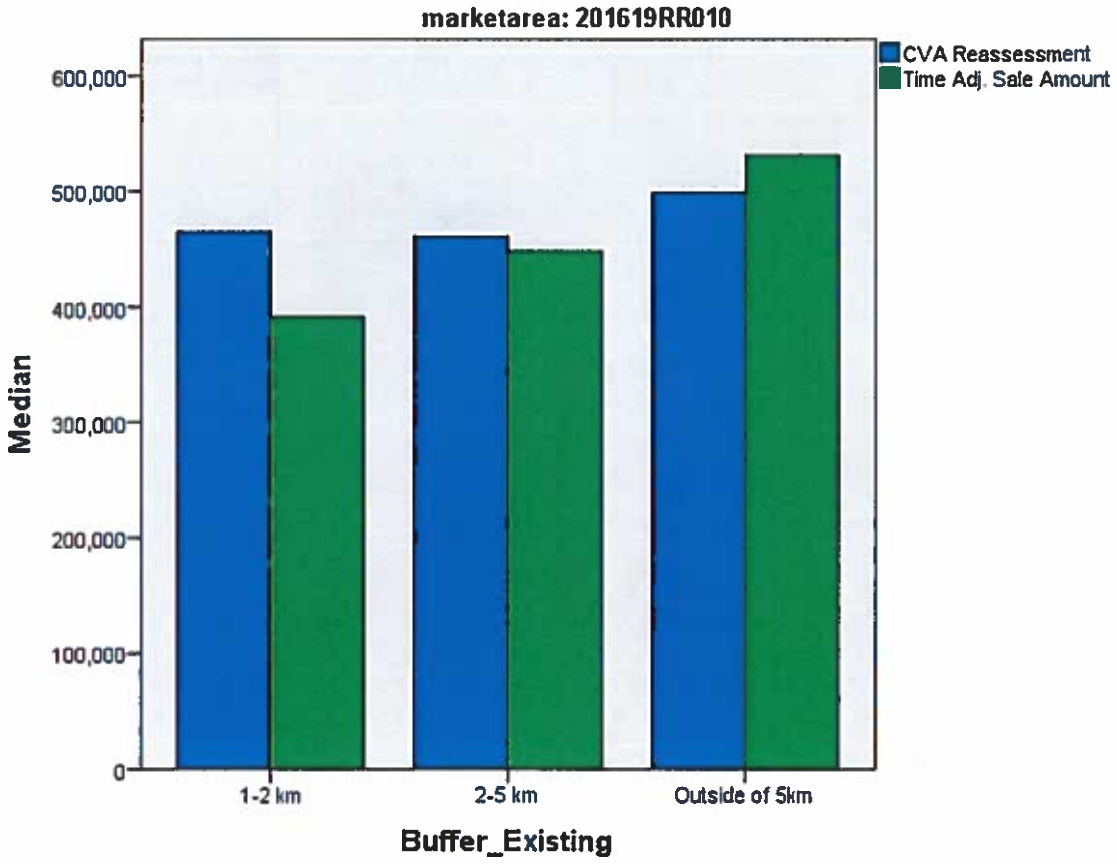
## Median CVA and Sale Amount by Distance from IWT

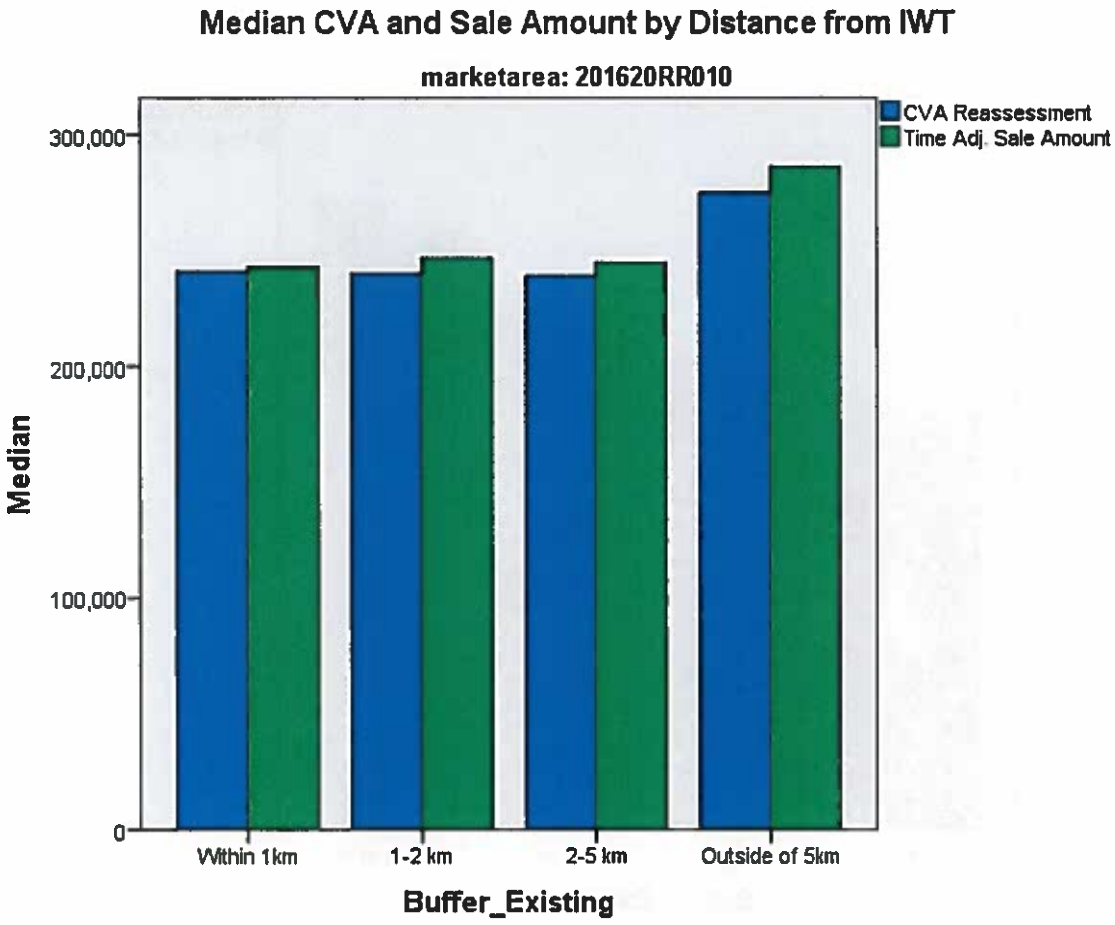


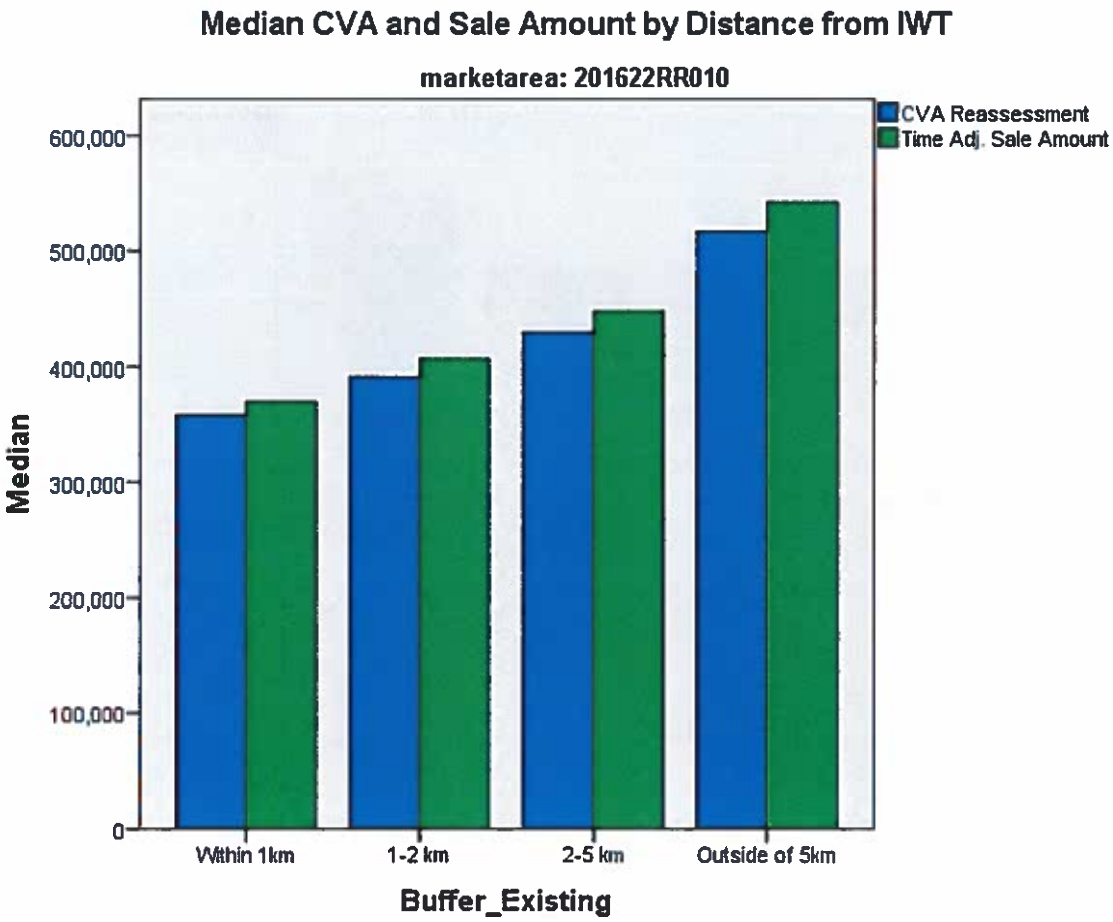
## Median CVA and Sale Amount by Distance from IWT

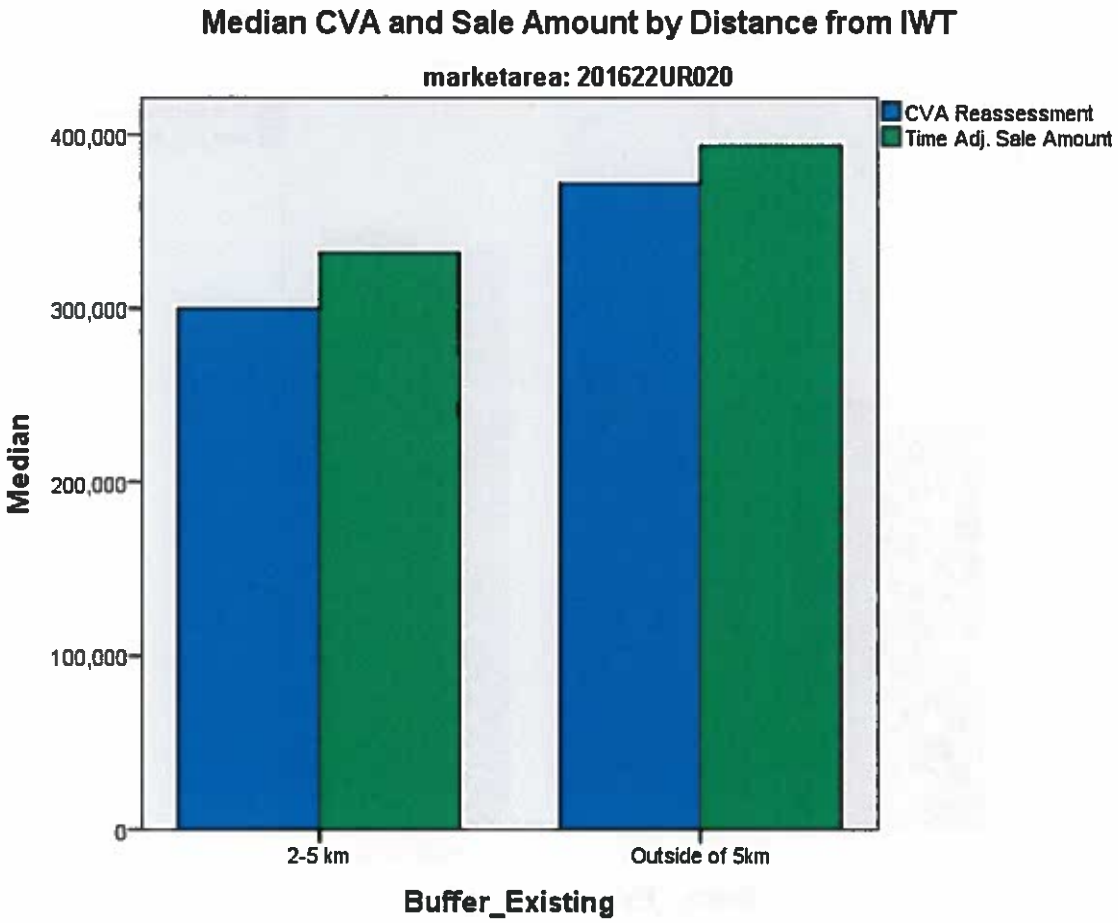


## Median CVA and Sale Amount by Distance from IWT

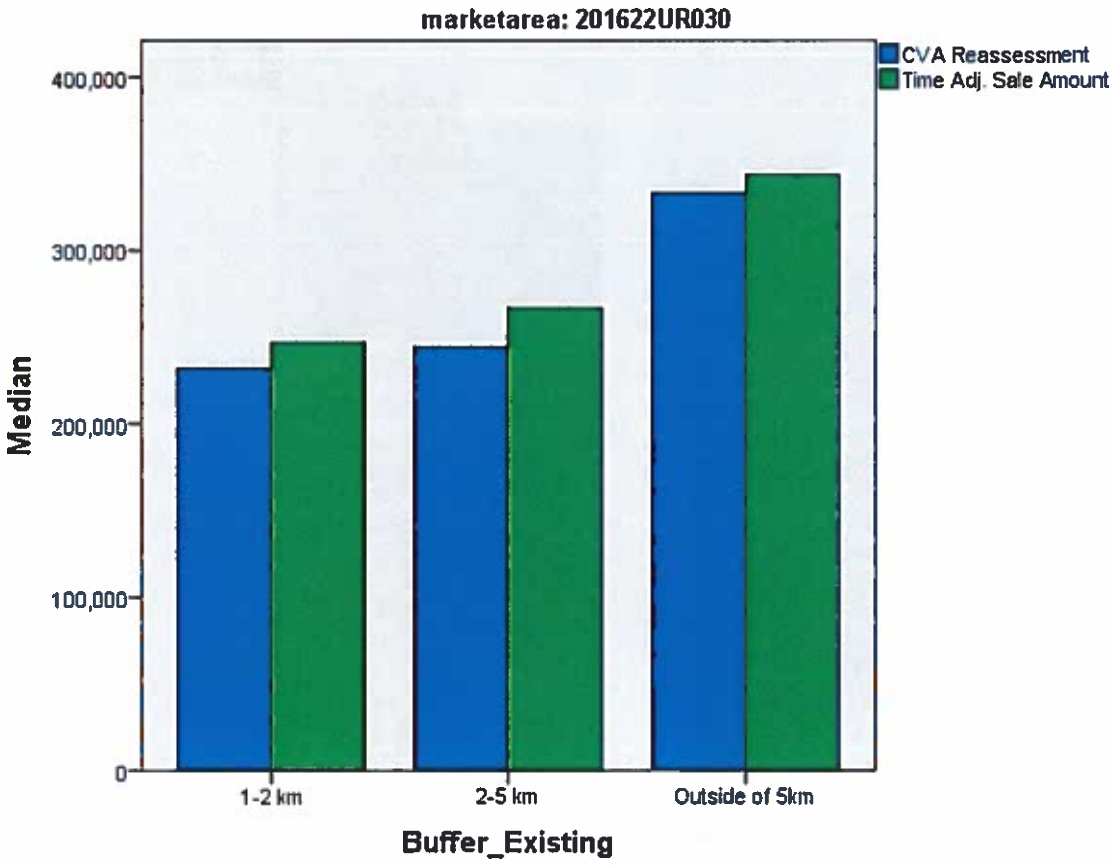



Median CVA and Sale Amount by Distance from IWT
marketarea: 201620RR010
CVA Reassessment
Time Adj. Sale Amount
300,000
200,000
100,000
0
Median
Within 1km
1-2 km
2-5 km
Outside of 5km
Buffer_Existing

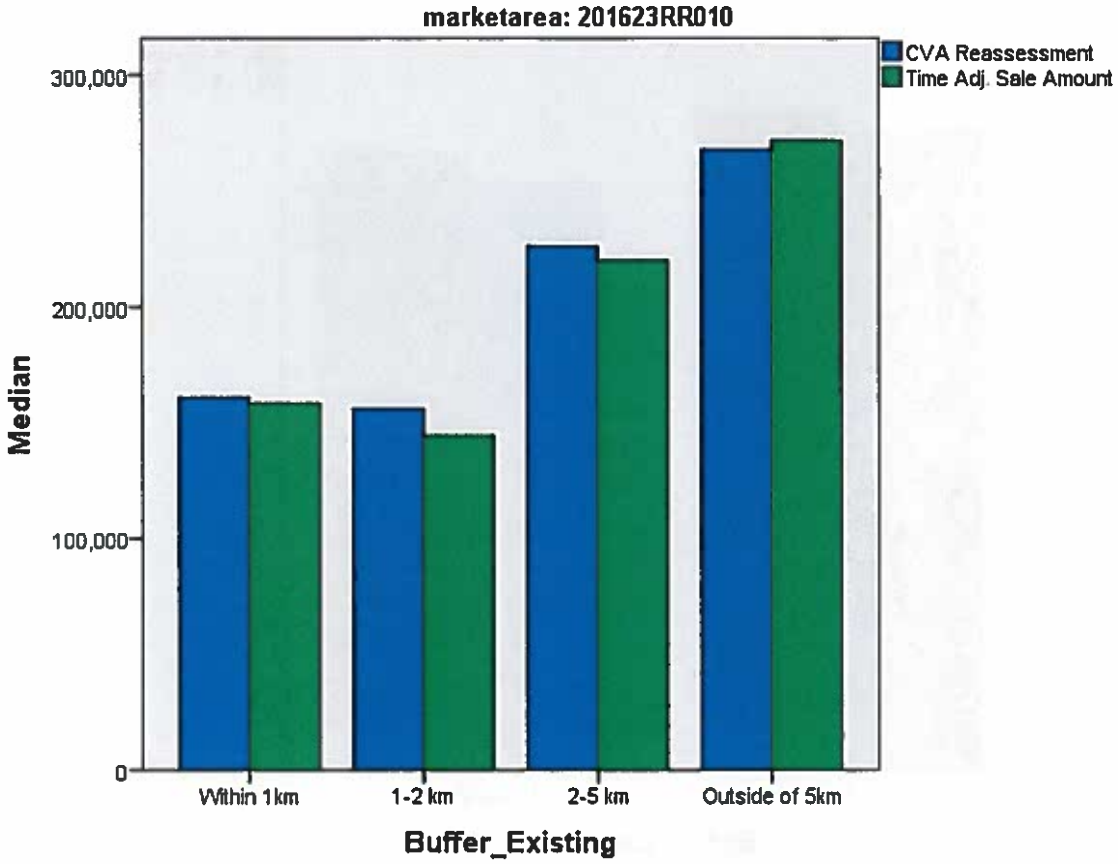

Median CVA and Sale Amount by Distance from IWT
marketarea: 201622RR010
CVA Reassessment
Time Adj. Sale Amount
600,000
500,000
400,000
300,000
200,000
100,000
0
Median
Within 1km
1-2 km
2-5 km
Outside of 5km
Buffer_Existing

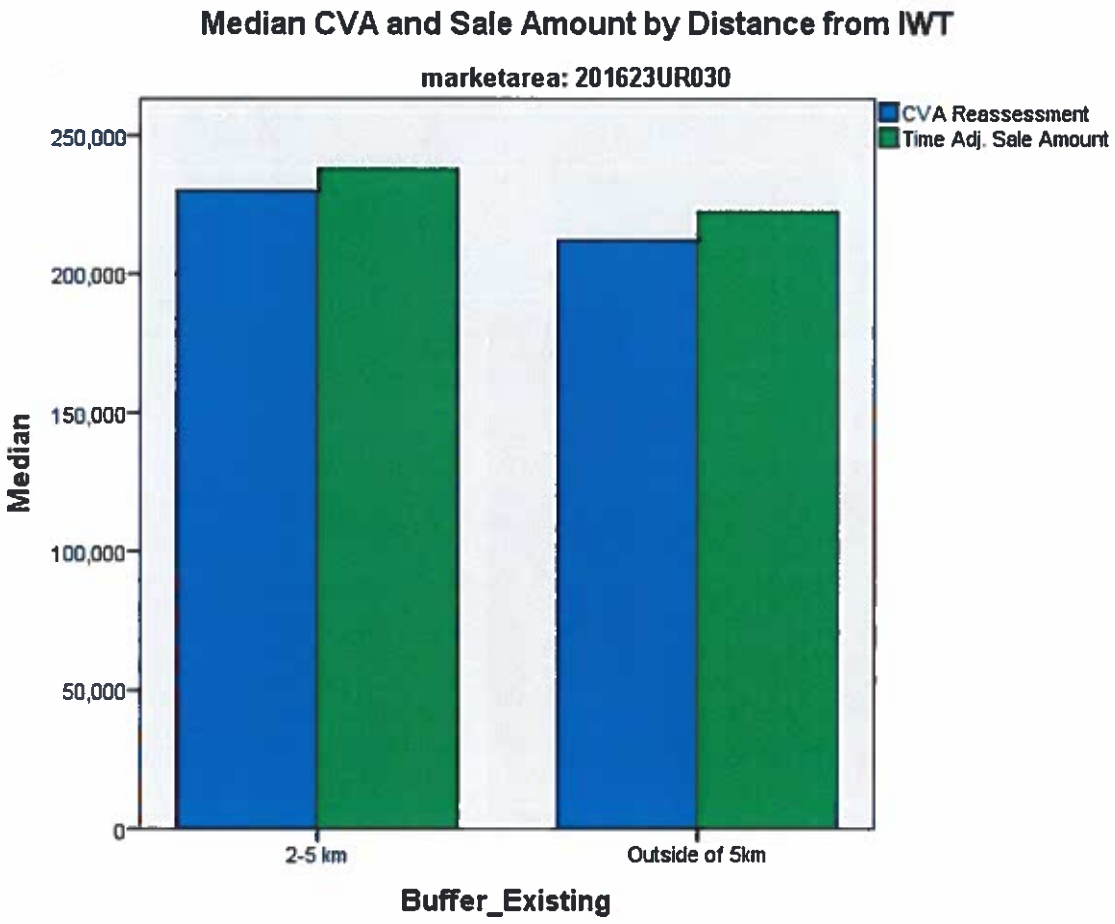

Median CVA and Sale Amount by Distance from IWT
marketarea: 201622UR020
CVA Reassessment
Time Adj. Sale Amount
400,000
300,000
200,000
100,000
0
Median
2-5 km
Outside of 5km
Buffer_Existing

## Median CVA and Sale Amount by Distance from IWT

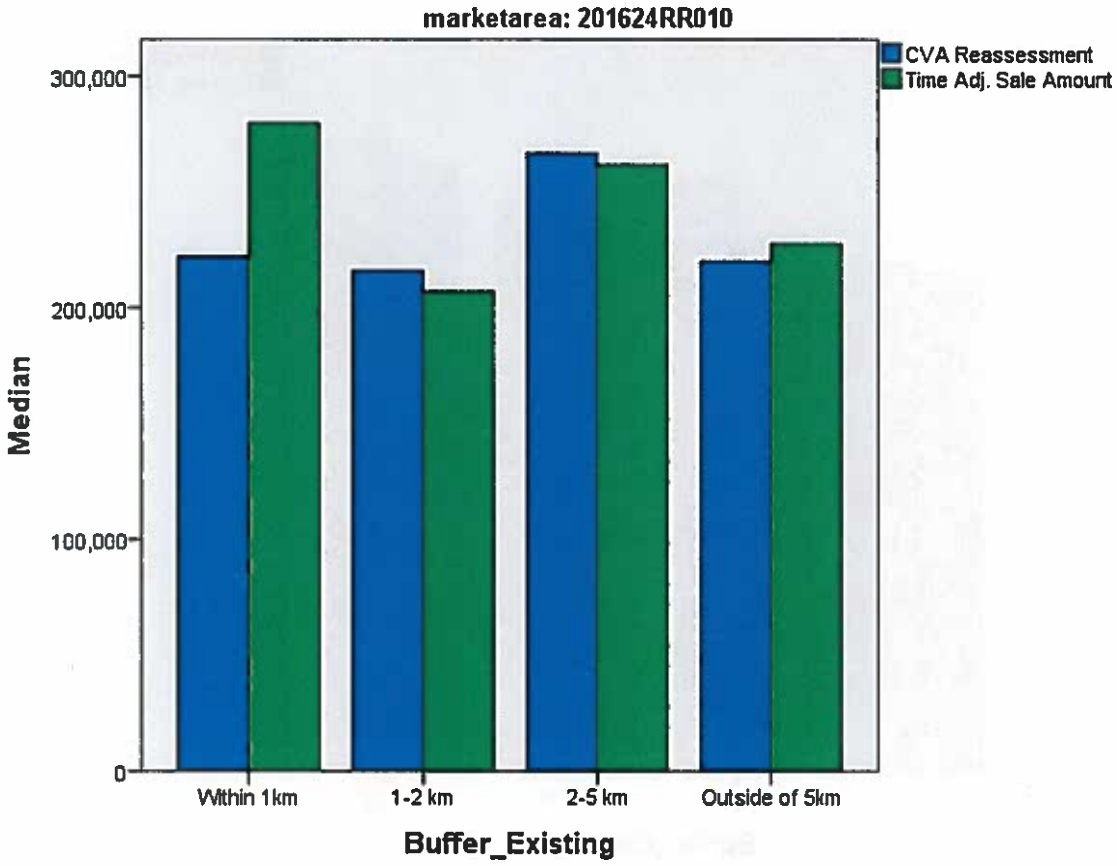


## Median CVA and Sale Amount by Distance from IWT

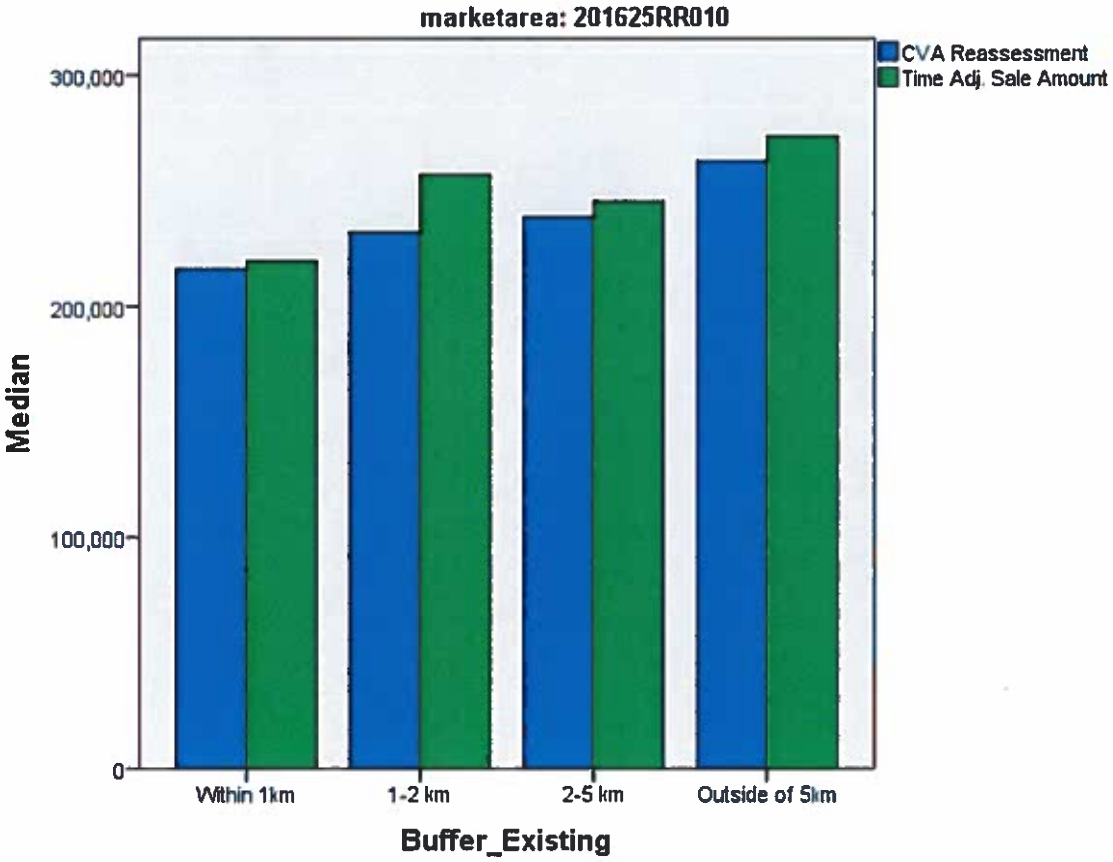



Median CVA and Sale Amount by Distance from IWT
marketarea: 201623UR030
CVA Reassessment
Time Adj. Sale Amount
250,000
200,000
150,000
100,000
50,000
0
Median
2-5 km
Outside of 5km
Buffer_Existing

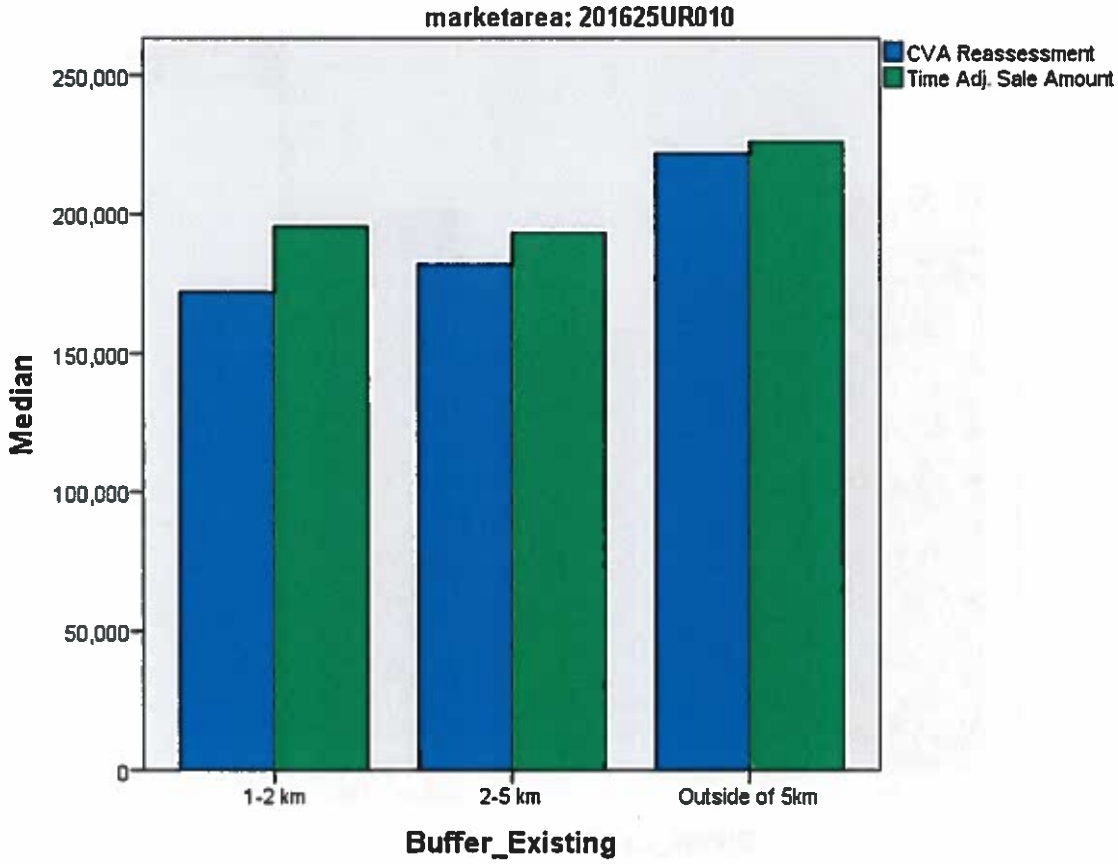
## Median CVA and Sale Amount by Distance from IWT

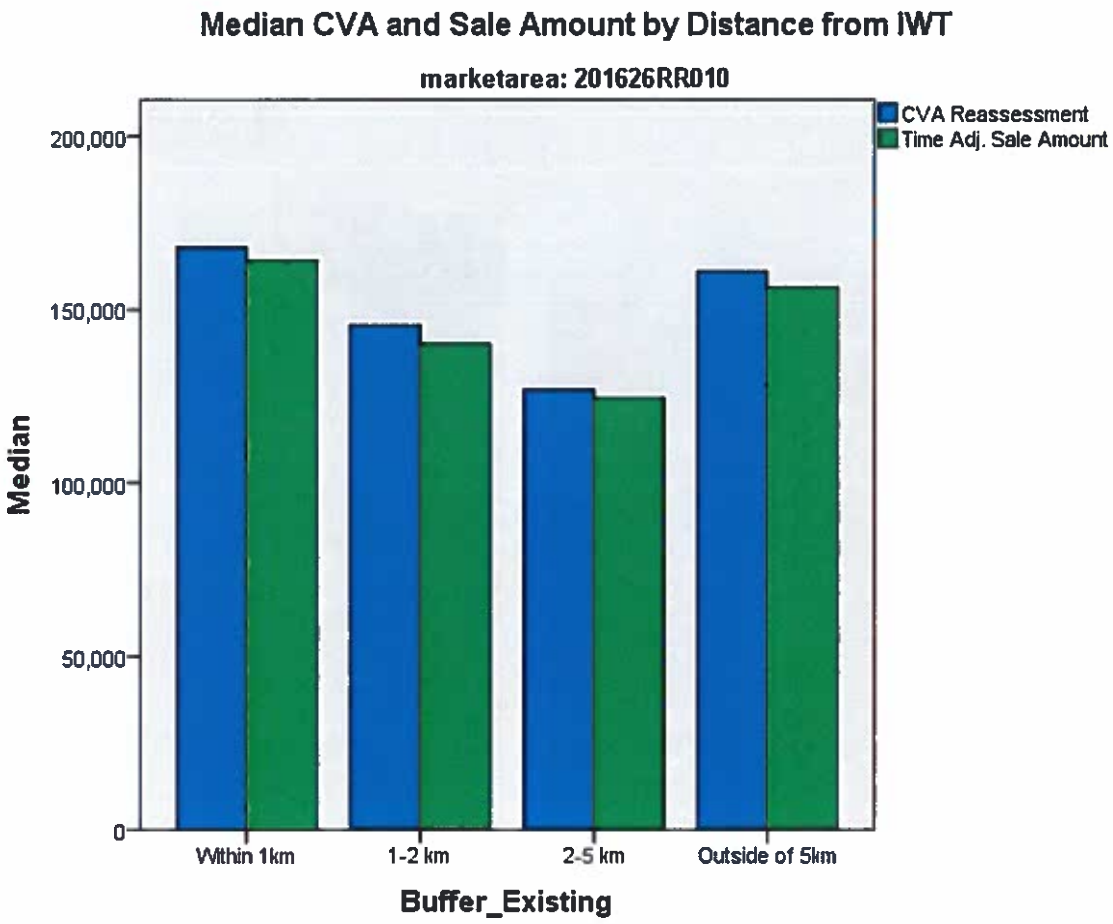


## Median CVA and Sale Amount by Distance from IWT

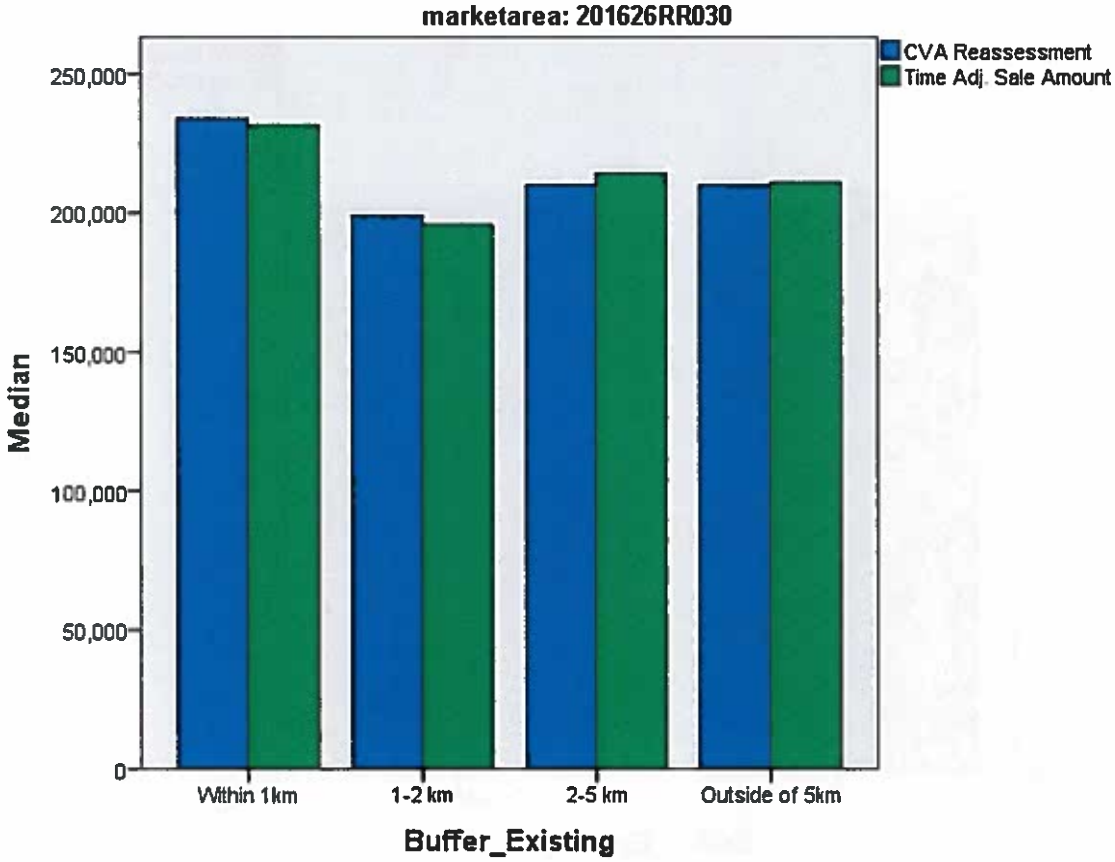


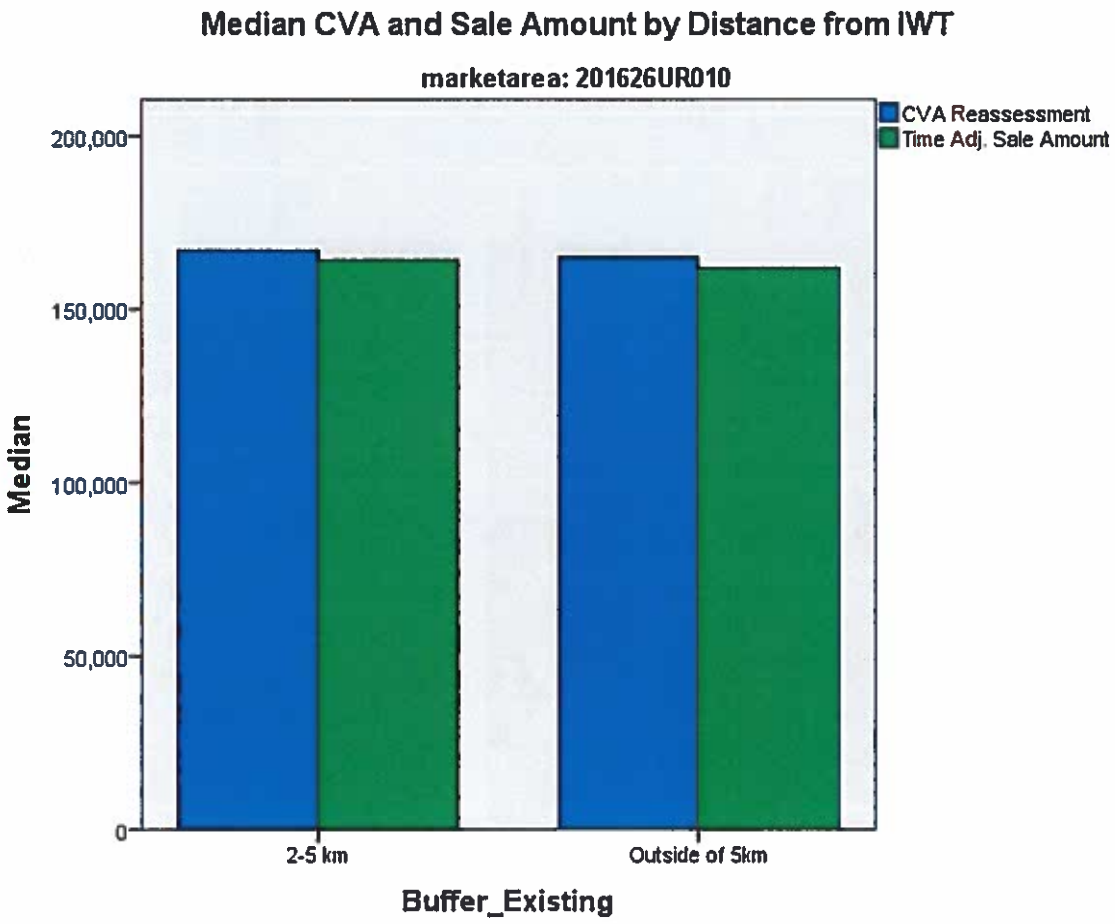
## Median CVA and Sale Amount by Distance from IWT



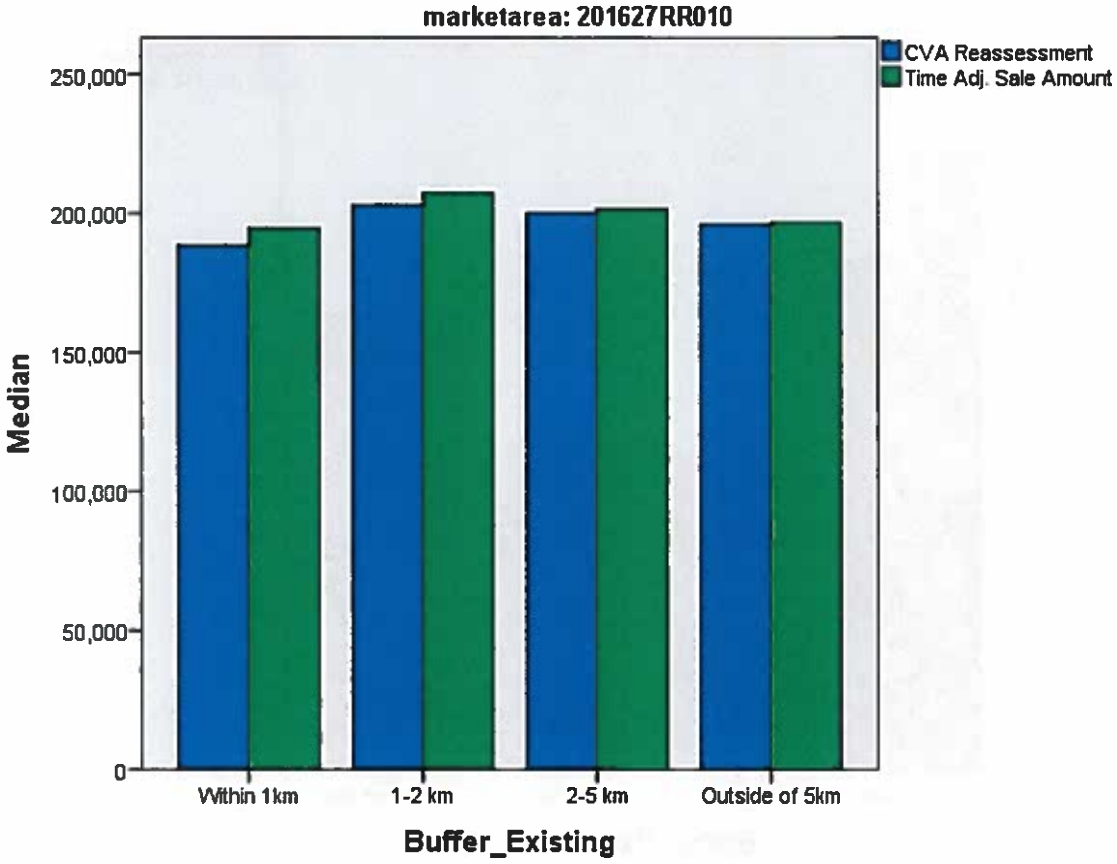

Median CVA and Sale Amount by Distance from IWT
marketarea: 201626RR010
CVA Reassessment
Time Adj. Sale Amount
200,000
150,000
100,000
50,000
0
Median
Within 1km
1-2 km
2-5 km
Outside of 5km
Buffer_Existing

## Median CVA and Sale Amount by Distance from IWT

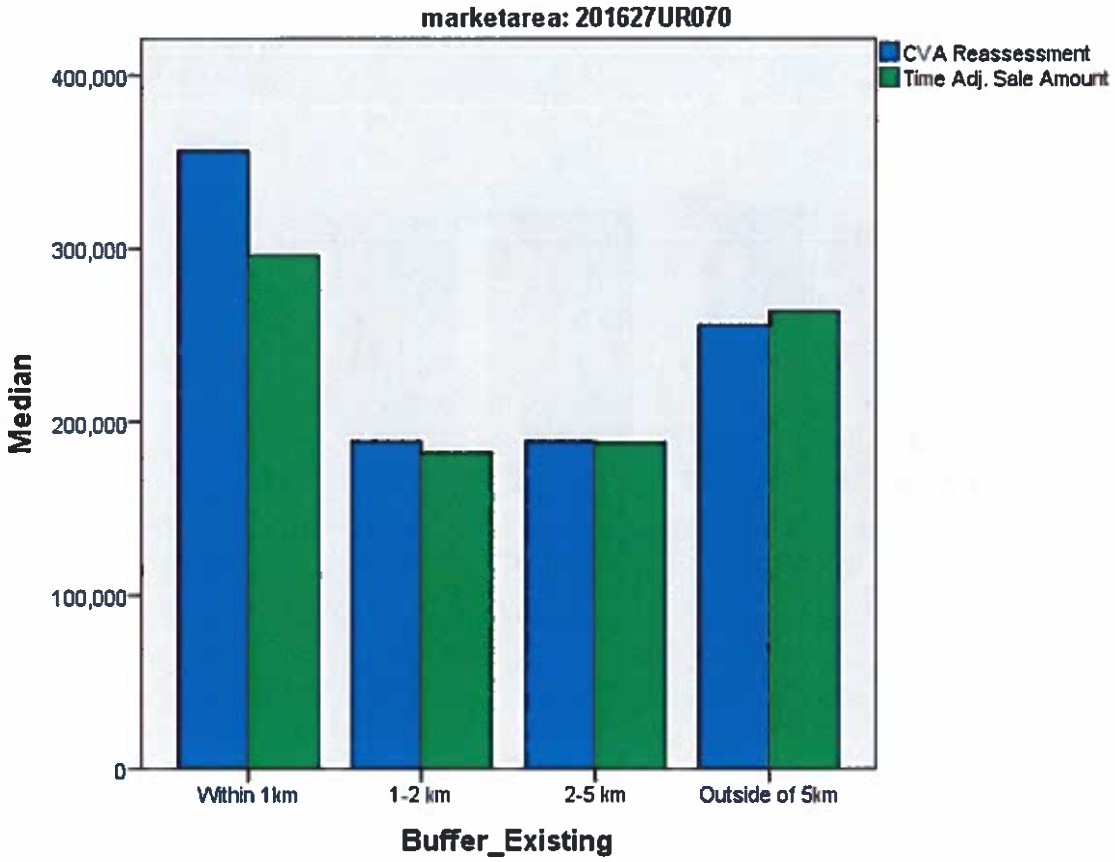



Median CVA and Sale Amount by Distance from IWT
marketarea: 201626UR010
CVA Reassessment
Time Adj. Sale Amount
200,000
150,000
100,000
50,000
0
Median
2-5 km
Outside of 5km
Buffer_Existing

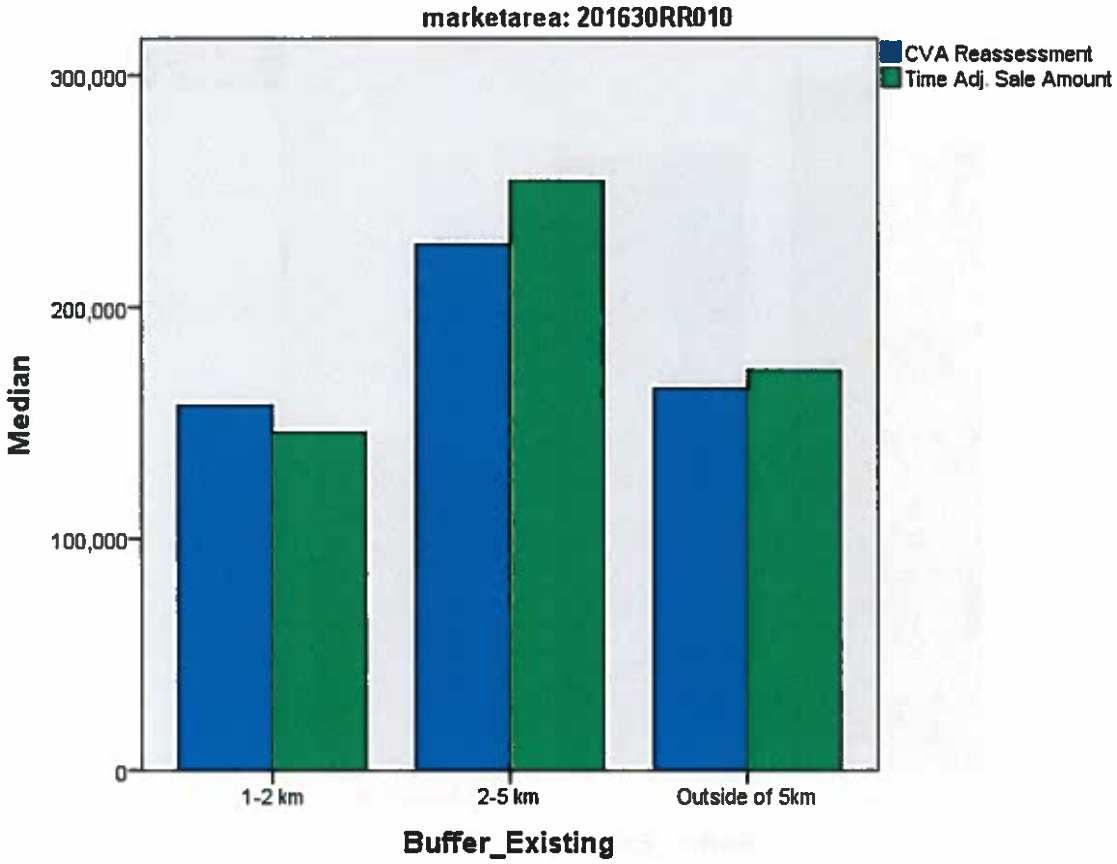
## Median CVA and Sale Amount by Distance from IWT

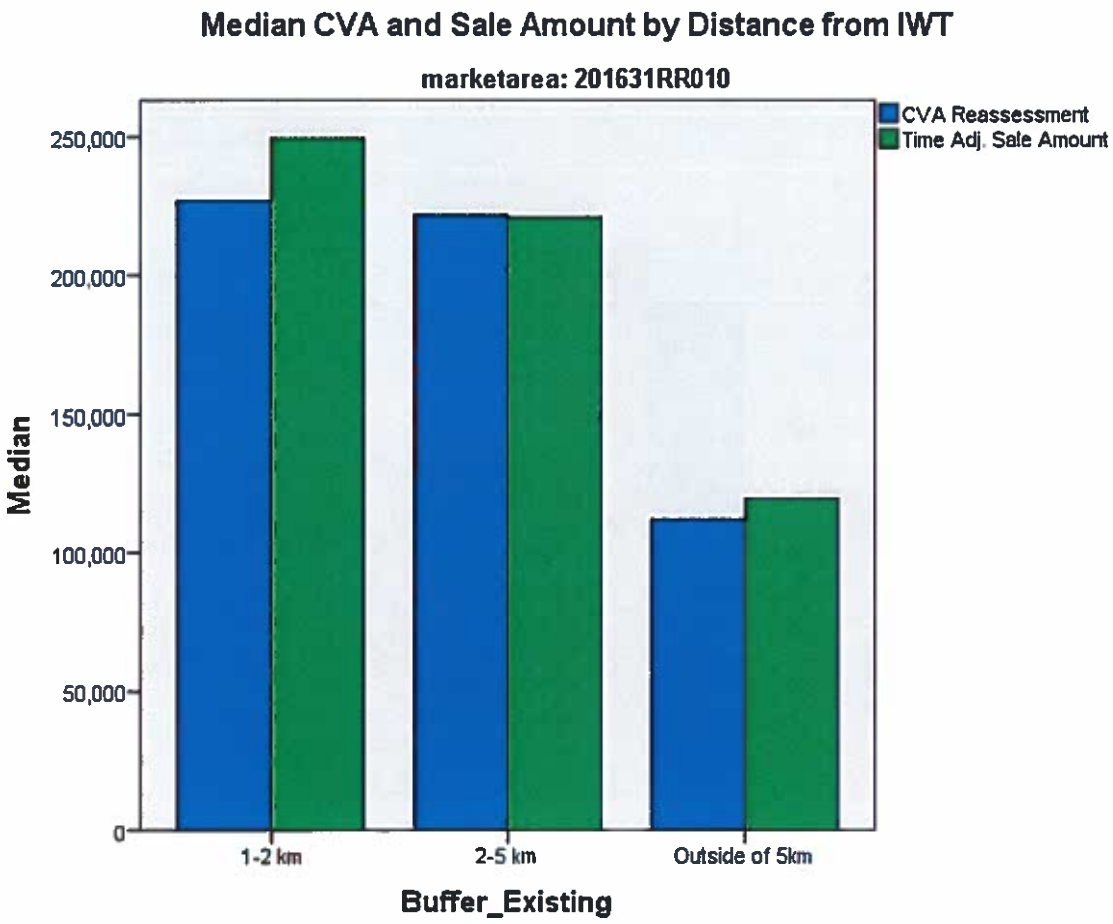


## Median CVA and Sale Amount by Distance from IWT

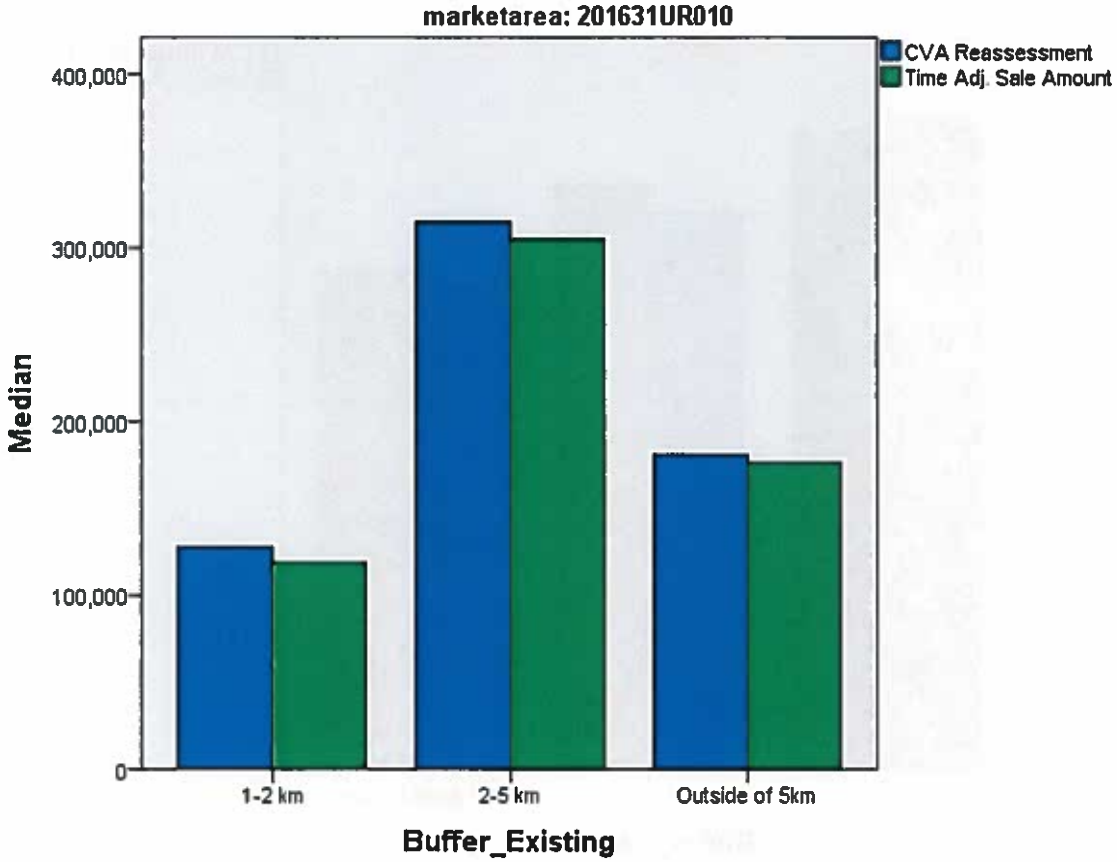


## Median CVA and Sale Amount by Distance from IWT

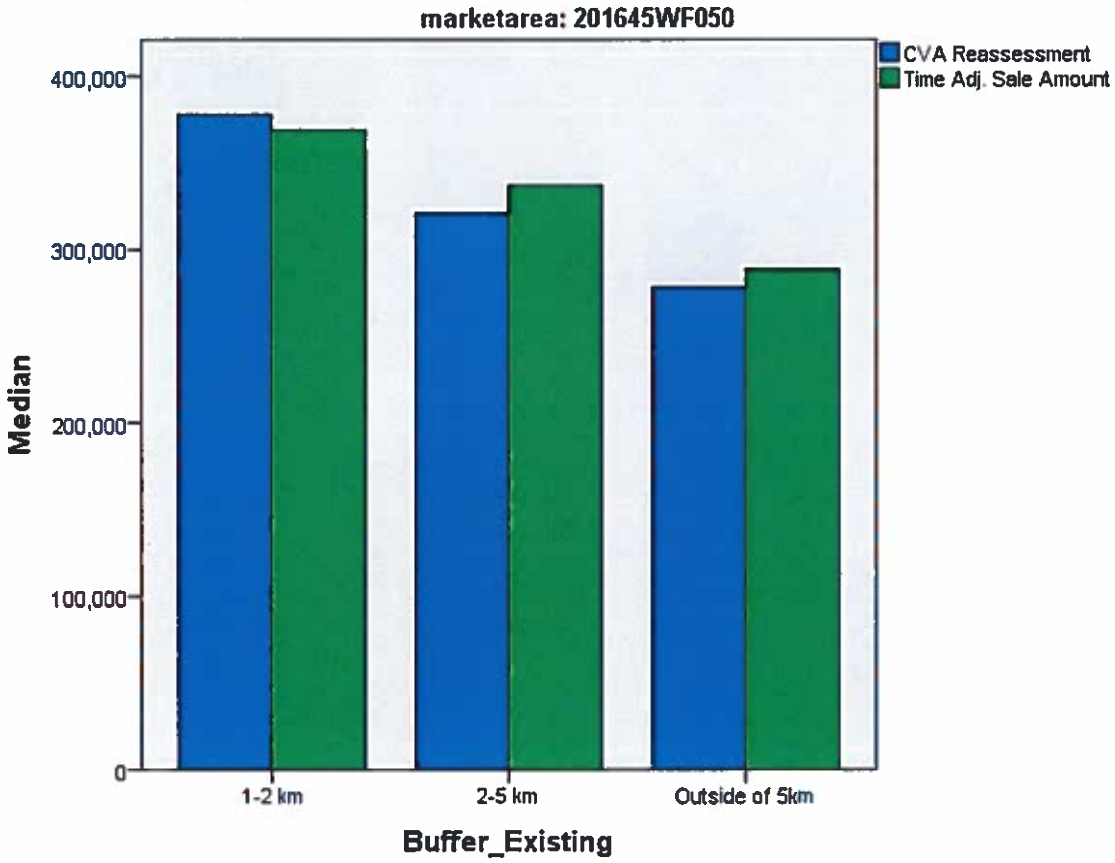



Median CVA and Sale Amount by Distance from IWT
marketarea: 201631RR010
CVA Reassessment
Time Adj. Sale Amount
Median
250,000
200,000
150,000
100,000
50,000
0
1-2 km
2-5 km
Outside of 5km
Buffer_Existing

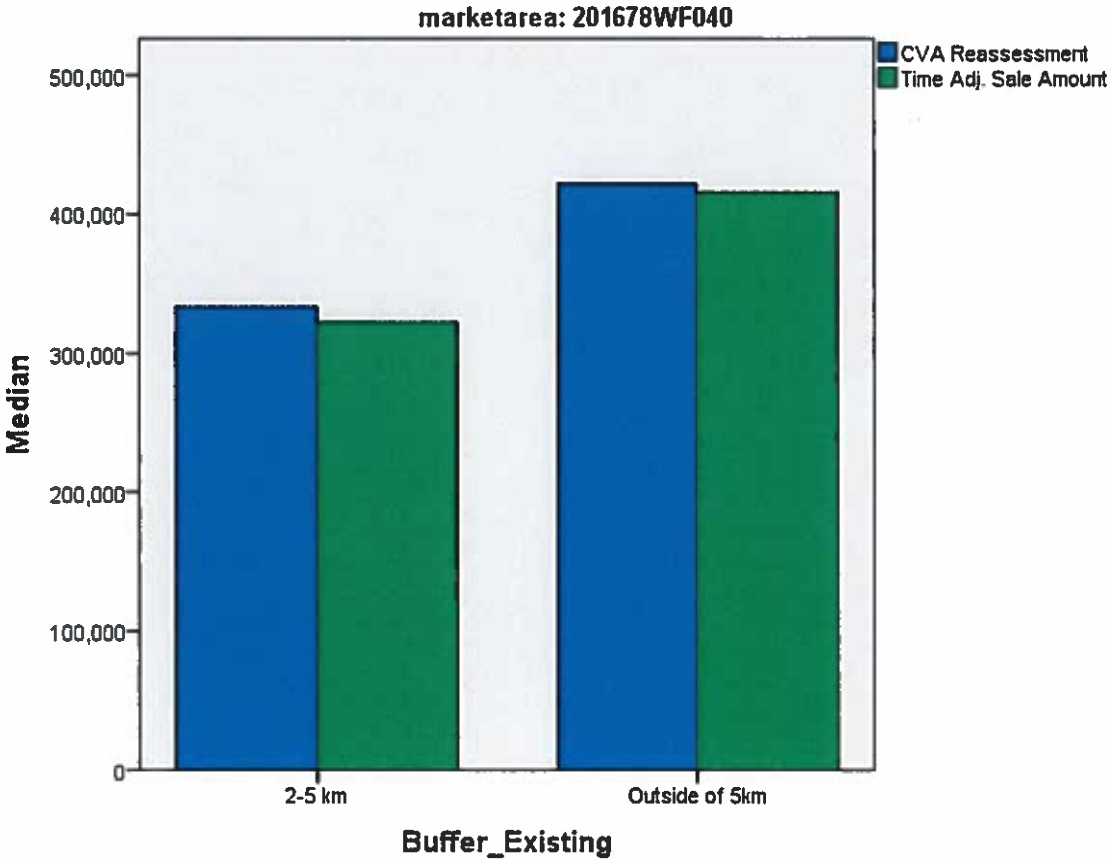
## Median CVA and Sale Amount by Distance from IWT



## Median CVA and Sale Amount by Distance from IWT



## Median CVA and Sale Amount by Distance from IWT



## **Appendix C** – Distance Grouping 2016 Sales Ratio Study by Market area

| Market Area | Distance | Sale Count | LoA | 95% LCL | 95% UCL |
|---|---|---|---|---|---|
| 201601RR010 | 1.00 Within 1km | 9 | 1.142 | .987 | 1.327 |
| | 2.00 1-2 km | 4 | 1.072 | | |
| | 5.00 2-5 km | 36 | .965 | .921 | 1.011 |
| | 6.00 Outside of 5km | 11914 | .990 | .988 | .993 |
| | Overall | 11963 | .990 | .988 | .993 |
| 201605RR030 | 1.00 Within 1km | 30 | .984 | .929 | 1.071 |
| | 2.00 1-2 km | 13 | .938 | .783 | .996 |
| | 5.00 2-5 km | 335 | .949 | .940 | .959 |
| | 6.00 Outside of 5km | 3748 | .963 | .959 | .970 |
| | Overall | 4126 | .961 | .957 | .967 |
| 201616RR030 | 5.00 2-5 km | 6 | .783 | .577 | 1.313 |
| | 6.00 Outside of 5km | 6482 | .967 | .964 | .970 |
| | Overall | 6488 | .967 | .964 | .970 |
| 201618RR010 | 1.00 Within 1km | 11 | .956 | .929 | 1.233 |
| | 2.00 1-2 km | 45 | .961 | .884 | 1.020 |
| | 5.00 2-5 km | 95 | 1.016 | .968 | 1.043 |
| | 6.00 Outside of 5km | 2262 | .973 | .966 | .983 |
| | Overall | 2413 | .974 | .967 | .984 |
| 201618WF010 | 2.00 1-2 km | 18 | .937 | .877 | 1.010 |
| | 5.00 2-5 km | 31 | .899 | .803 | .983 |
| | 6.00 Outside of 5km | 186 | .902 | .880 | .931 |
| | Overall | 235 | .902 | .881 | .935 |
| 201619RR010 | 2.00 1-2 km | 8 | 1.012 | .685 | 1.559 |
| | 5.00 2-5 km | 38 | .995 | .954 | 1.097 |
| | 6.00 Outside of 5km | 1742 | .954 | .948 | .961 |
| | Overall | 1788 | .956 | .949 | .961 |
| 201620RR010 | 1.00 Within 1km | 247 | 1.019 | .978 | 1.041 |
| | 2.00 1-2 km | 351 | .976 | .957 | .996 |
| | 5.00 2-5 km | 1230 | .981 | .972 | .989 |
| | 6.00 Outside of 5km | 6961 | .963 | .960 | .967 |
| | Overall | 8789 | .967 | .964 | .970 |
| 201622RR010 | 1.00 Within 1km | 83 | .989 | .924 | 1.038 |
| | 2.00 1-2 km | 67 | .949 | .927 | 1.001 |
| | 5.00 2-5 km | 217 | .938 | .913 | .972 |
| | 6.00 Outside of 5km | 2570 | .950 | .944 | .957 |
| | Overall | 2937 | .950 | .944 | .956 |
| 201622UR020 | 5.00 2-5 km | 689 | .926 | .922 | .934 |
| | 6.00 Outside of 5km | 3149 | .936 | .934 | .940 |
| | Overall | 3838 | .935 | .932 | .938 |

| Market Area | Distance | Sale Count | LoA | 95% LCL | 95% UCL |
|---|---|---|---|---|---|
| 201622UR030 | 2.00 1-2 km | 135 | .936 | .911 | .950 |
| | 5.00 2-5 km | 38 | .947 | .882 | 1.001 |
| | 6.00 Outside of 5km | 3610 | .962 | .958 | .966 |
| | Overall | 3783 | .961 | .957 | .964 |
| 201623RR010 | 1.00 Within 1km | 13 | 1.013 | .866 | 1.302 |
| | 2.00 1-2 km | 89 | 1.032 | .995 | 1.076 |
| | 5.00 2-5 km | 284 | .986 | .971 | 1.008 |
| | 6.00 Outside of 5km | 7156 | .987 | .984 | .991 |
| | Overall | 7542 | .988 | .984 | .991 |
| 201623UR030 | 5.00 2-5 km | 353 | .973 | .959 | .991 |
| | 6.00 Outside of 5km | 9567 | .964 | .961 | .966 |
| | Overall | 9920 | .964 | .962 | .966 |
| 201624RR010 | 1.00 Within 1km | 23 | .844 | .768 | .949 |
| | 2.00 1-2 km | 55 | .994 | .963 | 1.056 |
| | 5.00 2-5 km | 268 | .961 | .946 | .989 |
| | 6.00 Outside of 5km | 3731 | .969 | .965 | .974 |
| | Overall | 4077 | .969 | .965 | .974 |
| 201625RR010 | 1.00 Within 1km | 32 | 1.030 | .929 | 1.081 |
| | 2.00 1-2 km | 37 | .938 | .875 | .989 |
| | 5.00 2-5 km | 250 | .988 | .971 | 1.016 |
| | 6.00 Outside of 5km | 3473 | .970 | .965 | .976 |
| | Overall | 3792 | .971 | .966 | .977 |
| 201625UR010 | 2.00 1-2 km | 24 | 1.020 | .925 | 1.085 |
| | 5.00 2-5 km | 279 | .947 | .926 | .971 |
| | 6.00 Outside of 5km | 6130 | .976 | .972 | .980 |
| | Overall | 6433 | .975 | .971 | .979 |
| 201626RR010 | 1.00 Within 1km | 298 | 1.025 | 1.007 | 1.048 |
| | 2.00 1-2 km | 920 | 1.028 | 1.019 | 1.037 |
| | 5.00 2-5 km | 1109 | 1.035 | 1.024 | 1.049 |
| | 6.00 Outside of 5km | 847 | 1.016 | 1.004 | 1.028 |
| | Overall | 3174 | 1.027 | 1.021 | 1.033 |
| 201626RR030 | 1.00 Within 1km | 18 | 1.045 | .942 | 1.154 |
| | 2.00 1-2 km | 152 | 1.017 | .994 | 1.043 |
| | 5.00 2-5 km | 557 | .989 | .975 | 1.009 |
| | 6.00 Outside of 5km | 2530 | 1.000 | .993 | 1.005 |
| | Overall | 3257 | 1.000 | .994 | 1.005 |
| 201626UR010 | 5.00 2-5 km | 559 | .999 | .993 | 1.009 |
| | 6.00 Outside of 5km | 2125 | 1.004 | .999 | 1.010 |
| | Overall | 2684 | 1.004 | .999 | 1.009 |
| 201627RR010 | 1.00 Within 1km | 216 | .971 | .950 | 1.000 |
| | 2.00 1-2 km | 483 | .967 | .951 | .982 |
| | 5.00 2-5 km | 1436 | .978 | .971 | .984 |
| | 6.00 Outside of 5km | 3915 | .976 | .970 | .980 |
| | Overall | 6050 | .976 | .972 | .979 |

| Market Area | Distance | Sale Count | LoA | 95% LCL | 95% UCL |
|---|---|---|---|---|---|
| 201627UR070 | 1.00 Within 1km | 4 | 1.040 | | |
| | 2.00 1-2 km | 265 | 1.013 | .988 | 1.029 |
| | 5.00 2-5 km | 250 | .979 | .964 | .994 |
| | 6.00 Outside of 5km | 4762 | .970 | .967 | .973 |
| | Overall | 5281 | .972 | .969 | .975 |
| 201630RR010 | 2.00 1-2 km | 4 | 1.099 | | |
| | 5.00 2-5 km | 17 | .819 | .729 | 1.003 |
| | 6.00 Outside of 5km | 1883 | .967 | .957 | .976 |
| | Overall | 1904 | .966 | .957 | .976 |
| 201631RR010 | 2.00 1-2 km | 7 | .951 | .878 | 1.477 |
| | 5.00 2-5 km | 25 | 1.022 | .942 | 1.049 |
| | 6.00 Outside of 5km | 2527 | .968 | .960 | .976 |
| | Overall | 2559 | .968 | .960 | .976 |
| 201631UR010 | 2.00 1-2 km | 12 | 1.138 | .919 | 1.277 |
| | 5.00 2-5 km | 31 | 1.068 | 1.013 | 1.132 |
| | 6.00 Outside of 5km | 4180 | 1.009 | 1.004 | 1.014 |
| | Overall | 4223 | 1.009 | 1.005 | 1.015 |
| 201645WF050 | 2.00 1-2 km | 2 | 1.057 | | |
| | 5.00 2-5 km | 596 | .956 | .946 | .967 |
| | 6.00 Outside of 5km | 1162 | .974 | .964 | .984 |
| | Overall | 1760 | .966 | .959 | .974 |
| 201678WF040 | 5.00 2-5 km | 22 | .985 | .884 | 1.063 |
| | 6.00 Outside of 5km | 1300 | .998 | .989 | 1.007 |
| | Overall | 1322 | .998 | .989 | 1.006 |

## Appendix D - Number of Turbines by Distance Grouping 2016 Sales Ratio Study by Market area

| Market Area | Distance | Density | Sale Count | LoA | 95% LCL | 95% UCL |
|---|---|---|---|---|---|---|
| 201601RR010 | Within 1km | 1.00 1km: 1 to 3 IWTS | 9 | 1.142 | .987 | 1.327 |
| | | Overall | 9 | 1.142 | .987 | 1.327 |
| | 1km to 2km | 1.00 2km: 1 to 3 IWTS | 2 | 1.072 | | |
| | | 2.00 2km: 4 to 6 IWTs | 2 | 1.169 | | |
| | | Overall | 4 | 1.072 | | |
| | 2km to 5km | 1.00 5km: 1 to 3 IWTS | 29 | .960 | .892 | .985 |
| | | 2.00 5km: 4 to 6 IWTs | 5 | 1.099 | | |
| | | 3.00 5km: 7 to 9 IWTs | 2 | 1.004 | | |
| | | Overall | 36 | .965 | .921 | 1.011 |
| | Outside 5km | Overall | 11914 | .990 | .988 | .993 |
| 201605RR030 | Within 1km | 1.00 1km: 1 to 3 IWTS | 27 | .978 | .873 | 1.071 |
| | | 2.00 1km: 4 to 6 IWTs | 3 | 1.110 | | |
| | | Overall | 30 | .984 | .929 | 1.071 |
| | 1km to 2km | 1.00 2km: 1 to 3 IWTS | 9 | .968 | .805 | 1.194 |
| | | 2.00 2km: 4 to 6 IWTs | 2 | .790 | | |
| | | 3.00 2km: 7 to 9 IWTs | 2 | .851 | | |
| | | Overall | 13 | .938 | .783 | .996 |
| | 2km to 5km | 1.00 5km: 1 to 3 IWTS | 265 | .950 | .939 | .961 |
| | | 2.00 5km: 4 to 6 IWTs | 65 | .944 | .922 | .971 |
| | | 3.00 5km: 7 to 9 IWTs | 1 | .944 | | |
| | | 4.00 5km: 10 to 15 IWTs | 1 | 1.046 | | |
| | | 5.00 5km: 16 to 20 IWTs | 1 | .873 | | |
| | | 6.00 5km: 21 to 30 IWTs | 2 | 1.129 | | |
| | | Overall | 335 | .949 | .940 | .959 |
| | Outside 5km | Overall | 3748 | .963 | .959 | .970 |
| 201616RR030 | 2km to 5km | 1.00 5km: 1 to 3 IWTS | 6 | .783 | .577 | 1.313 |
| | | Overall | 6 | .783 | .577 | 1.313 |
| | Outside 5km | Overall | 6482 | .967 | .964 | .970 |
| 201618RR010 | Within 1km | 1.00 1km: 1 to 3 IWTS | 11 | .956 | .929 | 1.233 |
| | | Overall | 11 | .956 | .929 | 1.233 |
| | 1km to 2km | 1.00 2km: 1 to 3 IWTS | 45 | .961 | .884 | 1.020 |
| | | Overall | 45 | .961 | .884 | 1.020 |
| | 2km to 5km | 1.00 5km: 1 to 3 IWTS | 43 | 1.017 | .926 | 1.059 |
| | | 2.00 5km: 4 to 6 IWTs | 51 | 1.016 | .914 | 1.064 |
| | | 3.00 5km: 7 to 9 IWTs | 1 | .999 | | |
| | | Overall | 95 | 1.016 | .968 | 1.043 |
| | Outside 5km | Overall | 2262 | .973 | .966 | .983 |
| 201618WF010 | 1km to 2km | 1.00 2km: 1 to 3 IWTS | 18 | .937 | .877 | 1.010 |
| | | Overall | 18 | .937 | .877 | 1.010 |
| | 2km to 5km | 1.00 5km: 1 to 3 IWTS | 18 | .860 | .733 | .981 |
| | | 2.00 5km: 4 to 6 IWTs | 10 | .952 | .779 | 1.106 |
| | | 3.00 5km: 7 to 9 IWTs | 3 | .998 | | |
| | | Overall | 31 | .899 | .803 | .983 |
| | Outside 5km | Overall | 186 | .902 | .880 | .931 |

| Market Area | Distance | Density | Sale Count | LoA | 95% LCL | 95% UCL |
|---|---|---|---|---|---|---|
| 201619RR010 | 1km to 2km | 1.00 2km: 1 to 3 IWTS | 8 | 1.012 | .685 | 1.559 |
| | | Overall | 8 | 1.012 | .685 | 1.559 |
| | 2km to 5km | 1.00 5km: 1 to 3 IWTS | 22 | .963 | .935 | 1.121 |
| | | 2.00 5km: 4 to 6 IWTs | 16 | 1.059 | .958 | 1.133 |
| | | Overall | 38 | .995 | .954 | 1.097 |
| | Outside 5km | Overall | 1742 | .954 | .948 | .961 |
| 201620RR010 | Within 1km | 1.00 1km: 1 to 3 IWTS | 234 | 1.002 | .968 | 1.038 |
| | | 2.00 1km: 4 to 6 IWTs | 13 | 1.136 | 1.010 | 1.315 |
| | | Overall | 247 | 1.019 | .978 | 1.041 |
| | 1km to 2km | 1.00 2km: 1 to 3 IWTS | 272 | .984 | .966 | 1.005 |
| | | 2.00 2km: 4 to 6 IWTs | 68 | .938 | .896 | .980 |
| | | 3.00 2km: 7 to 9 IWTs | 11 | 1.016 | .858 | 1.211 |
| | | Overall | 351 | .976 | .957 | .996 |
| | 2km to 5km | 1.00 5km: 1 to 3 IWTS | 146 | .964 | .940 | .979 |
| | | 2.00 5km: 4 to 6 IWTs | 234 | .982 | .961 | 1.005 |
| | | 3.00 5km: 7 to 9 IWTs | 156 | .986 | .964 | 1.009 |
| | | 4.00 5km: 10 to 15 IWTs | 615 | .986 | .970 | .995 |
| | | 5.00 5km: 16 to 20 IWTs | 67 | .989 | .944 | 1.017 |
| | | 6.00 5km: 21 to 30 IWTs | 12 | .994 | .764 | 1.314 |
| | | Overall | 1230 | .981 | .972 | .989 |
| | Outside 5km | Overall | 6961 | .963 | .960 | .967 |
| 201622RR010 | Within 1km | 1.00 1km: 1 to 3 IWTS | 51 | .978 | .879 | 1.045 |
| | | 2.00 1km: 4 to 6 IWTs | 30 | .975 | .914 | 1.089 |
| | | 3.00 1km: 7 to 9 IWTs | 2 | 1.023 | | |
| | | Overall | 83 | .989 | .924 | 1.038 |
| | 1km to 2km | 1.00 2km: 1 to 3 IWTS | 57 | .946 | .899 | 1.010 |
| | | 2.00 2km: 4 to 6 IWTs | 8 | .999 | .874 | 1.338 |
| | | 4.00 2km: 10 to 15 IWTs | 2 | .875 | | |
| | | Overall | 67 | .949 | .927 | 1.001 |
| | 2km to 5km | 1.00 5km: 1 to 3 IWTS | 88 | .952 | .920 | .994 |
| | | 2.00 5km: 4 to 6 IWTs | 62 | .899 | .860 | .972 |
| | | 3.00 5km: 7 to 9 IWTs | 25 | .896 | .853 | .999 |
| | | 4.00 5km: 10 to 15 IWTs | 17 | 1.023 | .874 | 1.059 |
| | | 5.00 5km: 16 to 20 IWTs | 14 | .938 | .866 | 1.086 |
| | | 6.00 5km: 21 to 30 IWTs | 11 | .986 | .828 | 1.188 |
| | | Overall | 217 | .938 | .913 | .972 |
| | Outside 5km | Overall | 2570 | .950 | .944 | .957 |
| 201622UR020 | 2km to 5km | 1.00 5km: 1 to 3 IWTS | 136 | .924 | .915 | .940 |
| | | 2.00 5km: 4 to 6 IWTs | 329 | .923 | .916 | .934 |
| | | 3.00 5km: 7 to 9 IWTs | 75 | .950 | .919 | .981 |
| | | 4.00 5km: 10 to 15 IWTs | 142 | .931 | .918 | .946 |
| | | 5.00 5km: 16 to 20 IWTs | 7 | .879 | .769 | .982 |
| | | Overall | 689 | .926 | .922 | .934 |
| | Outside 5km | Overall | 3149 | .936 | .934 | .940 |

| Market Area | Distance | Density | Sale Count | LoA | 95% LCL | 95% UCL |
|---|---|---|---|---|---|---|
| 201622UR030 | 1km to 2km | 1.00 2km: 1 to 3 IWTS | 94 | .924 | .889 | .951 |
| | | 2.00 2km: 4 to 6 IWTs | 41 | .939 | .908 | .955 |
| | | Overall | 135 | .936 | .911 | .950 |
| | 2km to 5km | 2.00 5km: 4 to 6 IWTs | 36 | .941 | .879 | 1.001 |
| | | 3.00 5km: 7 to 9 IWTs | 2 | 1.016 | | |
| | | Overall | 38 | .947 | .882 | 1.001 |
| | Outside 5km | Overall | 3610 | .962 | .958 | .966 |
| 201623RR010 | Within 1km | 1.00 1km: 1 to 3 IWTS | 13 | 1.013 | .866 | 1.302 |
| | | Overall | 13 | 1.013 | .866 | 1.302 |
| | 1km to 2km | 1.00 2km: 1 to 3 IWTS | 83 | 1.047 | 1.004 | 1.076 |
| | | 2.00 2km: 4 to 6 IWTs | 5 | .935 | | |
| | | 3.00 2km: 7 to 9 IWTs | 1 | .936 | | |
| | | Overall | 89 | 1.032 | .995 | 1.076 |
| | 2km to 5km | 1.00 5km: 1 to 3 IWTS | 46 | 1.027 | .931 | 1.109 |
| | | 2.00 5km: 4 to 6 IWTs | 86 | .980 | .955 | 1.018 |
| | | 3.00 5km: 7 to 9 IWTs | 70 | .956 | .925 | 1.007 |
| | | 4.00 5km: 10 to 15 IWTs | 68 | .997 | .973 | 1.067 |
| | | 5.00 5km: 16 to 20 IWTs | 13 | 1.091 | .800 | 1.217 |
| | | 6.00 5km: 21 to 30 IWTs | 1 | 1.041 | | |
| | | Overall | 284 | .986 | .971 | 1.008 |
| | Outside 5km | Overall | 7156 | .987 | .984 | .991 |
| 201623UR030 | 2km to 5km | 1.00 5km: 1 to 3 IWTS | 107 | .977 | .935 | 1.021 |
| | | 2.00 5km: 4 to 6 IWTs | 184 | .982 | .963 | 1.010 |
| | | 3.00 5km: 7 to 9 IWTs | 38 | .964 | .931 | 1.005 |
| | | 4.00 5km: 10 to 15 IWTs | 24 | .949 | .911 | 1.067 |
| | | Overall | 353 | .973 | .959 | .991 |
| | Outside 5km | Overall | 9567 | .964 | .961 | .966 |
| 201624RR010 | Within 1km | 1.00 1km: 1 to 3 IWTS | 22 | .827 | .750 | .979 |
| | | 2.00 1km: 4 to 6 IWTs | 1 | .850 | | |
| | | Overall | 23 | .844 | .768 | .949 |
| | 1km to 2km | 1.00 2km: 1 to 3 IWTS | 47 | .986 | .963 | 1.037 |
| | | 2.00 2km: 4 to 6 IWTs | 6 | 1.076 | .908 | 1.285 |
| | | 3.00 2km: 7 to 9 IWTs | 1 | .564 | | |
| | | 4.00 2km: 10 to 15 IWTs | 1 | .828 | | |
| | | Overall | 55 | .994 | .963 | 1.056 |
| | 2km to 5km | 1.00 5km: 1 to 3 IWTS | 137 | .958 | .936 | .988 |
| | | 2.00 5km: 4 to 6 IWTs | 47 | .946 | .886 | .989 |
| | | 3.00 5km: 7 to 9 IWTs | 16 | 1.076 | .859 | 1.146 |
| | | 4.00 5km: 10 to 15 IWTs | 54 | 1.009 | .923 | 1.043 |
| | | 5.00 5km: 16 to 20 IWTs | 2 | 1.214 | | |
| | | 6.00 5km: 21 to 30 IWTs | 12 | .950 | .888 | 1.194 |
| | | Overall | 268 | .961 | .946 | .989 |
| | Outside 5km | Overall | 3731 | .969 | .965 | .974 |

| Market Area | Distance | Density | Sale Count | LoA | 95% LCL | 95% UCL |
|---|---|---|---|---|---|---|
| 201625RR010 | Within 1km | 1.00 1km: 1 to 3 IWTS | 20 | 1.056 | .901 | 1.147 |
| | | 2.00 1km: 4 to 6 IWTs | 10 | 1.018 | .900 | 1.080 |
| | | 3.00 1km: 7 to 9 IWTs | 2 | .963 | | |
| | | Overall | 32 | 1.030 | .929 | 1.081 |
| | 1km to 2km | 1.00 2km: 1 to 3 IWTS | 24 | .937 | .796 | 1.067 |
| | | 2.00 2km: 4 to 6 IWTs | 9 | .944 | .835 | 1.260 |
| | | 3.00 2km: 7 to 9 IWTs | 2 | 1.053 | | |
| | | 5.00 2km: 16 to 20 IWTs | 2 | .923 | | |
| | | Overall | 37 | .938 | .875 | .989 |
| | 2km to 5km | 1.00 5km: 1 to 3 IWTS | 104 | .980 | .936 | 1.033 |
| | | 2.00 5km: 4 to 6 IWTs | 31 | .988 | .918 | 1.078 |
| | | 3.00 5km: 7 to 9 IWTs | 22 | 1.009 | .892 | 1.121 |
| | | 4.00 5km: 10 to 15 IWTs | 39 | .989 | .937 | 1.055 |
| | | 5.00 5km: 16 to 20 IWTs | 29 | .988 | .921 | 1.093 |
| | | 6.00 5km: 21 to 30 IWTs | 20 | 1.043 | .925 | 1.079 |
| | | 7.00 5km: 31 to 40 IWTs | 5 | .993 | | |
| | | Overall | 250 | .988 | .971 | 1.016 |
| | Outside 5km | Overall | 3473 | .970 | .965 | .976 |
| 201625UR010 | 1km to 2km | 1.00 2km: 1 to 3 IWTS | 24 | 1.020 | .925 | 1.085 |
| | | Overall | 24 | 1.020 | .925 | 1.085 |
| | 2km to 5km | 1.00 5km: 1 to 3 IWTS | 238 | .947 | .926 | .971 |
| | | 2.00 5km: 4 to 6 IWTs | 18 | .972 | .872 | 1.053 |
| | | 3.00 5km: 7 to 9 IWTs | 13 | .980 | .888 | 1.176 |
| | | 4.00 5km: 10 to 15 IWTs | 10 | .897 | .759 | 1.026 |
| | | Overall | 279 | .947 | .926 | .971 |
| | Outside 5km | Overall | 6130 | .976 | .972 | .980 |
| 201626RR010 | Within 1km | 1.00 1km: 1 to 3 IWTS | 286 | 1.025 | 1.004 | 1.050 |
| | | 2.00 1km: 4 to 6 IWTs | 12 | 1.023 | .985 | 1.132 |
| | | Overall | 298 | 1.025 | 1.007 | 1.048 |
| | 1km to 2km | 1.00 2km: 1 to 3 IWTS | 654 | 1.028 | 1.017 | 1.039 |
| | | 2.00 2km: 4 to 6 IWTs | 234 | 1.026 | 1.009 | 1.044 |
| | | 3.00 2km: 7 to 9 IWTs | 22 | 1.055 | .957 | 1.280 |
| | | 4.00 2km: 10 to 15 IWTs | 10 | 1.091 | .949 | 1.408 |
| | | Overall | 920 | 1.028 | 1.019 | 1.037 |
| | 2km to 5km | 1.00 5km: 1 to 3 IWTS | 471 | 1.031 | 1.010 | 1.054 |
| | | 2.00 5km: 4 to 6 IWTs | 316 | 1.048 | 1.021 | 1.066 |
| | | 3.00 5km: 7 to 9 IWTs | 175 | 1.055 | 1.029 | 1.096 |
| | | 4.00 5km: 10 to 15 IWTs | 107 | 1.010 | .989 | 1.047 |
| | | 5.00 5km: 16 to 20 IWTs | 13 | 1.025 | .921 | 1.145 |
| | | 6.00 5km: 21 to 30 IWTs | 22 | .987 | .938 | 1.068 |
| | | 7.00 5km: 31 to 40 IWTs | 5 | 1.032 | | |
| | | Overall | 1109 | 1.035 | 1.024 | 1.049 |
| | Outside 5km | Overall | 847 | 1.016 | 1.004 | 1.028 |

| Market Area | Distance | Density | Sale Count | LoA | 95% LCL | 95% UCL |
|---|---|---|---|---|---|---|
| 201626RR030 | Within 1km | 1.00 1km: 1 to 3 IWTS | 17 | 1.037 | .942 | 1.112 |
| | | 2.00 1km: 4 to 6 IWTs | 1 | 1.154 | | |
| | | Overall | 18 | 1.045 | .942 | 1.154 |
| | 1km to 2km | 1.00 2km: 1 to 3 IWTS | 110 | 1.028 | 1.004 | 1.076 |
| | | 2.00 2km: 4 to 6 IWTs | 39 | .981 | .921 | 1.035 |
| | | 3.00 2km: 7 to 9 IWTs | 3 | 1.024 | | |
| | | Overall | 152 | 1.017 | .994 | 1.043 |
| | 2km to 5km | 1.00 5km: 1 to 3 IWTS | 83 | 1.002 | .981 | 1.035 |
| | | 2.00 5km: 4 to 6 IWTs | 300 | .985 | .972 | 1.012 |
| | | 3.00 5km: 7 to 9 IWTs | 63 | 1.009 | .961 | 1.047 |
| | | 4.00 5km: 10 to 15 IWTs | 53 | .896 | .846 | .958 |
| | | 5.00 5km: 16 to 20 IWTs | 6 | 1.075 | .890 | 1.484 |
| | | 6.00 5km: 21 to 30 IWTs | 52 | 1.066 | .976 | 1.133 |
| | | Overall | 557 | .989 | .975 | 1.009 |
| | Outside 5km | Overall | 2530 | 1.000 | .993 | 1.005 |
| 201626UR010 | 2km to 5km | 1.00 5km: 1 to 3 IWTS | 511 | .999 | .993 | 1.009 |
| | | 2.00 5km: 4 to 6 IWTs | 27 | 1.026 | .974 | 1.086 |
| | | 3.00 5km: 7 to 9 IWTs | 18 | .982 | .903 | 1.038 |
| | | 4.00 5km: 10 to 15 IWTs | 3 | .921 | | |
| | | Overall | 559 | .999 | .993 | 1.009 |
| | Outside 5km | Overall | 2125 | 1.004 | .999 | 1.010 |
| 201627RR010 | Within 1km | 1.00 1km: 1 to 3 IWTS | 206 | .963 | .942 | 1.000 |
| | | 2.00 1km: 4 to 6 IWTs | 10 | 1.002 | .962 | 1.176 |
| | | Overall | 216 | .971 | .950 | 1.000 |
| | 1km to 2km | 1.00 2km: 1 to 3 IWTS | 374 | .970 | .953 | .983 |
| | | 2.00 2km: 4 to 6 IWTs | 75 | .948 | .911 | 1.010 |
| | | 3.00 2km: 7 to 9 IWTs | 9 | 1.079 | .873 | 1.284 |
| | | 4.00 2km: 10 to 15 IWTs | 25 | .954 | .857 | 1.038 |
| | | Overall | 483 | .967 | .951 | .982 |
| | 2km to 5km | 1.00 5km: 1 to 3 IWTS | 536 | .978 | .968 | .992 |
| | | 2.00 5km: 4 to 6 IWTs | 259 | .981 | .968 | .993 |
| | | 3.00 5km: 7 to 9 IWTs | 216 | .977 | .948 | 1.006 |
| | | 4.00 5km: 10 to 15 IWTs | 382 | .975 | .956 | .987 |
| | | 5.00 5km: 16 to 20 IWTs | 37 | .982 | .903 | 1.019 |
| | | 6.00 5km: 21 to 30 IWTs | 6 | .877 | .752 | .987 |
| | | Overall | 1436 | .978 | .971 | .984 |
| | Outside 5km | Overall | 3915 | .976 | .970 | .980 |
| 201627UR070 | Within 1km | 1.00 1km: 1 to 3 IWTS | 4 | 1.040 | | |
| | | Overall | 4 | 1.040 | | |
| | 1km to 2km | 1.00 2km: 1 to 3 IWTS | 234 | 1.008 | .981 | 1.023 |
| | | 2.00 2km: 4 to 6 IWTs | 31 | 1.052 | .933 | 1.137 |
| | | Overall | 265 | 1.013 | .988 | 1.029 |
| | 2km to 5km | 1.00 5km: 1 to 3 IWTS | 19 | .934 | .872 | 1.015 |
| | | 2.00 5km: 4 to 6 IWTs | 4 | .996 | | |
| | | 3.00 5km: 7 to 9 IWTs | 5 | 1.007 | | |
| | | 4.00 5km: 10 to 15 IWTs | 222 | .981 | .965 | .995 |
| | | Overall | 250 | .979 | .964 | .994 |
| | Outside 5km | Overall | 4762 | .970 | .967 | .973 |

| Market Area | Distance | Density | Sale Count | LoA | 95% LCL | 95% UCL |
|---|---|---|---|---|---|---|
| 201630RR010 | 1km to 2km | 1.00 2km: 1 to 3 IWTS | 3 | 1.053 | | |
| | | 2.00 2km: 4 to 6 IWTs | 1 | 1.242 | | |
| | | Overall | 4 | 1.099 | | |
| | 2km to 5km | 1.00 5km: 1 to 3 IWTS | 5 | 1.018 | | |
| | | 2.00 5km: 4 to 6 IWTs | 9 | .899 | .729 | 1.003 |
| | | 3.00 5km: 7 to 9 IWTs | 2 | .574 | | |
| | | 4.00 5km: 10 to 15 IWTs | 1 | .707 | | |
| | | Overall | 17 | .819 | .729 | 1.003 |
| | Outside 5km | Overall | 1883 | .967 | .957 | .976 |
| 201631RR010 | 1km to 2km | 1.00 2km: 1 to 3 IWTS | 1 | 1.477 | | |
| | | 2.00 2km: 4 to 6 IWTs | 5 | .944 | | |
| | | 3.00 2km: 7 to 9 IWTs | 1 | 1.278 | | |
| | | Overall | 7 | .951 | .878 | 1.477 |
| | 2km to 5km | 1.00 5km: 1 to 3 IWTS | 4 | .928 | | |
| | | 2.00 5km: 4 to 6 IWTs | 1 | .730 | | |
| | | 3.00 5km: 7 to 9 IWTs | 1 | .691 | | |
| | | 4.00 5km: 10 to 15 IWTs | 2 | 1.094 | | |
| | | 7.00 5km: 31 to 40 IWTs | 2 | .919 | | |
| | | 8.00 5km: 41 + IWTs | 15 | 1.034 | .982 | 1.103 |
| | | Overall | 25 | 1.022 | .942 | 1.049 |
| | Outside 5km | Overall | 2527 | .968 | .960 | .976 |
| 201631UR010 | 1km to 2km | 1.00 2km: 1 to 3 IWTS | 1 | 1.724 | | |
| | | 2.00 2km: 4 to 6 IWTs | 3 | 1.195 | | |
| | | 3.00 2km: 7 to 9 IWTs | 2 | .989 | | |
| | | 4.00 2km: 10 to 15 IWTs | 1 | 1.277 | | |
| | | 5.00 2km: 16 to 20 IWTs | 2 | .772 | | |
| | | 6.00 2km: 21 to 30 IWTs | 3 | 1.172 | | |
| | | Overall | 12 | 1.138 | .919 | 1.277 |
| | 2km to 5km | 1.00 5km: 1 to 3 IWTS | 6 | .901 | .791 | 1.068 |
| | | 2.00 5km: 4 to 6 IWTs | 4 | 1.148 | | |
| | | 3.00 5km: 7 to 9 IWTs | 2 | .871 | | |
| | | 4.00 5km: 10 to 15 IWTs | 16 | 1.108 | 1.018 | 1.247 |
| | | 5.00 5km: 16 to 20 IWTs | 2 | 1.288 | | |
| | | 8.00 5km: 41 + IWTs | 1 | 1.002 | | |
| | | Overall | 31 | 1.068 | 1.013 | 1.132 |
| | Outside 5km | Overall | 4180 | 1.009 | 1.004 | 1.014 |
| 201645WF050 | 1km to 2km | 1.00 2km: 1 to 3 IWTS | 2 | 1.057 | | |
| | | Overall | 2 | 1.057 | | |
| | 2km to 5km | 1.00 5km: 1 to 3 IWTS | 275 | .940 | .922 | .957 |
| | | 2.00 5km: 4 to 6 IWTs | 170 | .968 | .942 | .984 |
| | | 3.00 5km: 7 to 9 IWTs | 91 | .971 | .943 | 1.021 |
| | | 4.00 5km: 10 to 15 IWTs | 39 | .964 | .861 | .994 |
| | | 5.00 5km: 16 to 20 IWTs | 13 | .991 | .896 | 1.147 |
| | | 6.00 5km: 21 to 30 IWTs | 7 | .877 | .774 | 1.014 |
| | | 7.00 5km: 31 to 40 IWTs | 1 | .787 | | |
| | | Overall | 596 | .956 | .946 | .967 |
| | Outside 5km | Overall | 1162 | .974 | .964 | .984 |

| Market Area | Distance | Density | Sale Count | LoA | 95% LCL | 95% UCL |
|---|---|---|---|---|---|---|
| 201678WF040 | 2km to 5km | 1.00 5km: 1 to 3 IWTS | 22 | .985 | .884 | 1.063 |
| | | Overall | 22 | .985 | .884 | 1.063 |
| | Outside 5km | Overall | 1300 | .998 | .989 | 1.007 |

MUNICIPAL PROPERTY ASSESSMENT CORPORATION

March 7, 2017

To: Heads of Council, Chief Administrative Officers,
Finance Officers, Treasurers and Tax Collectors

From: Carla Y. Nell
Vice President, Municipal & Stakeholder Relations

**Subject: Assessing Properties in Proximity to Industrial Wind Turbines**

I would like to take this opportunity to share an update on a recent study published by the Municipal Property Assessment Corporation (MPAC).

We heard from Ontarians that they wanted more information about the impact of Industrial Wind Turbines (IWT) on property values. Given MPAC's legislative mandate to assess properties in Ontario, our assessors continually monitor influences on property value and recently conducted a comprehensive study to ensure that the assessments of properties in proximity to IWTs are fair and accurate.

Our findings concluded that the 2016 Current Value Assessments (CVA) of properties within five kilometres of an IWT are assessed at their current value and are equitably assessed in relation to homes at greater distances.

Our findings are consistent with the 2008 and 2012 CVA reports from MPAC and have been confirmed by Robert J. Gloudemans, an internationally recognized expert in the field of mass appraisal and ratio studies. The full report is available on mpac.ca under Property Types, Industrial Wind Turbines.

If you are interested in learning more about the 2016 base year study, I encourage you to join one of our information webinars. The agenda will include a review of the study and key findings.

1340 Pickering Parkway, Suite 101, Pickering, ON L1V 0C4
www.mpac.ca

To register for this event, simply select your preferred date below, click on it and send it. Shortly thereafter, you will receive an appointment for the respective date including the webinar details. Capacity for each call is limited so we encourage you to RSVP as soon as possible so that we can effectively manage demand.

Monday, April 3rd: 2:00 p.m. – 3:00 p.m.
Thursday, April 6th: 11:00 a.m. – 12:00 p.m.

If you have any questions, please contact your local Municipal & Stakeholder Relations Account Manager.

Yours truly,

Carla Y. Nell
Vice-President, Municipal and Stakeholder Relations

**Copy** Regional and Account Managers,
Municipal and Stakeholder Relations

# TOWNSHIP OF ZORRA

274620 27th Line, PO Box 306, Ingersoll, ON, N5C 3K5
Ph. (519) 485-2490 · 1-888-699-3868 · Fax: (519) 485-2520


March 1, 2017

Honourable Kathleen Wynne, Premier of Ontario
Legislative Building - Room 281
Queen's Park
Toronto, ON M7A 1A1

Dear Premier Wynne:

Please be advised the Council of the Township of Zorra passed the following resolution at its February 14, 2017 regular meeting:

**"WHEREAS, Automated External Defibrillators are used to treat sudden cardiac arrest and have been proven to be life-saving during the waiting time period for emergency services;**

**AND WHEREAS, for every minute a person in cardiac arrest goes without being successfully treated by defibrillation, the chance of survival decreases by 7 percent in the first, and decreases by 10 percent per minute as time advances past 3 minutes;**

**AND WHEREAS, Andrew Stoddart, a 15 year old boy, passed away while playing soccer in Kintore, Ontario, an AED on site may have increased his odds of survival. Andrew's Legacy foundation has currently purchased 22 AEDs for across Oxford County, including all three elementary schools in Zorra Township;**

**AND WHEREAS, Thames Valley District School Board has yet to put together a policy for having AED's in place in all, or any, of their public elementary and secondary schools;**

**THEREFORE BE IT RESOLVED THAT the Township of Zorra requests that the Premier, and Minister of Education, develop a policy that enables all schools and school boards in Ontario, including the Thames Valley District School Board, that allows individual elementary and secondary schools to have an AED installed in their schools;**

**AND THAT the Township of Zorra request that the Thames Valley District School Board and all other schools in Ontario develop a policy to install AEDs in all schools in Ontario as soon as possible for the safety of our children.**



INFO 6
MAR 16 2017

**AND THAT this resolution be sent to the Premier, Minister of Education, AMO, Thames Valley District School Board; and all Ontario Municipalities for consideration and support."**
**Disposition: Carried**

If you have any questions, please do not hesitate to contact me.

Yours truly,

Karen Martin
Clerk

cc: Minister of Education
Association of Municipalities of Ontario (AMO)
Thames Valley District School Board
All Ontario Municipalities

**17-011**

CORPORATION OF THE TOWNSHIP OF

KILLALOE-HAGARTY-RICHARDS

*Naturally Spirited*

**1 John Street, P.O. Box 39**
**Killaloe, ON K0J 2A0**
**Telephone: (613)757-2300 – Fax: (613)757-3634**
**Email: info@khrtownship.ca**
**Web Site: killaloe-hagarty-richards.ca**

March 1, 2017

Honourable Kathleen Wynne
Premier of Ontario
Legislative Building, Queen's Park
Toronto, ON
M7A 1A1

Dear Premier Wynne:

**Re: Proposed Amendments to Ontario Building Code – Change #08-09-03**

In regard to the above noted issue, attached please find a resolution from the Township of Killaloe, Hagarty and Richards. As outlined in the resolution, our Council is vehemently opposed to the additional cost and responsibility that will result from this unnecessary amendment to the Ontario Building Code.

Your attention to the concerns outlined in our resolution would be greatly appreciated, and we look forward to your reconsideration of this legislation which, if passed in its present state, will result in an additional financial and service delivery burden to municipal governments. Thank you.

Sincerely

Lorna Hudder.

Lorna Hudder, CMO, Dipl.M.M.
CAO/Clerk-Treasurer

LMH

Attachment

INFO 7
MAR 16 2017

CORPORATION OF THE TOWNSHIP OF KILLALOE-HAGARTY-RICHARDS

*Naturally Spirited*

**TOWNSHIP OF KILLALOE, HAGARTY AND RICHARDS**

**Date:** February 21, 2017 **Resolution No.:** 7

**Moved By:** John P. Jeffrey

**Seconded By:** Stanley Piccoche

WHEREAS: The MMAH has proposed a change to the building code, B-08-09-03, requiring mandatory five year septic tank pump out and records retention by the owner; and

WHEREAS: That same change requires Municipalities to administer and enforce this change; and

WHEREAS: The change document fails to identify the administrative costs to Municipalities; and

WHEREAS: The change document fails to identify any transfer of Provincial funding to offset these downloaded costs; and

WHEREAS: Many Municipalities already have bylaws to regulate septic systems especially near waterways; and

WHEREAS: The majority of homeowners pump out their septic tanks on a regular basis whether regulated to or not; and

WHEREAS: There are many more important issues on which to spend taxpayer's money than "enhancing" maintenance on existing functioning systems; and

WHEREAS: Adequate legislation already exists to correct malfunctioning systems; and

WHEREAS: Premier Wynne stated on Monday, January 30th, 2017 at the ROMA conference that the Province recognizes that "one size fits all" solutions do not always work in rural Ontario;

THEREFORE BE IT RESOLVED THAT the Township of Killaloe, Hagarty and Richards request the Honorable Bill Mauro, Minister of Municipal Affairs, to rescind proposed building code change B-08-09-03;

AND THAT a copy of this resolution is sent to the Honourable Kathleen Wynne, Premier of Ontario, the Honourable Bill Mauro, Minister of Municipal Affairs, Mr. Patrick Brown, Leader of the Progressive Conservative Party, Ms. Andrea Horwath, Leader of the New Democratic Party, and all Members of Provincial Parliament in the Province of Ontario;

AND THAT a copy of this resolution is sent to the Association of Municipalities of Ontario (AMO), the Rural Ontario Municipal Association (ROMA), the Federation of Northern Ontario Municipalities (FONOM), and to all Ontario Municipal Mayors for consideration.

Carried: ✓ Not Carried:_____

Thames Centre

Corporation of the Municipality of Thames Centre

4305 Hamilton Road, Dorchester, Ontario N0L 1G3 - Phone 519-268-7334 - Fax 519-268-3928 - www.thamescentre.on.ca - inquiries@thamescentre.on.ca

February 28, 2017

Honourable Kathleen Wynne, Premier of Ontario
Legislative Building – Room 281
Queen's Park
Toronto, ON M7A 1A1

Dear Premier Wynne:

At its last regular meeting held on February 22, 2017, the Council of The Corporation of the Municipality of Thames Centre enacted the following resolution:

"WHEREAS, Automated External Defibrillators are used to treat sudden cardiac arrest and have been proven to be life-saving during the waiting time period for emergency services;

AND WHEREAS, for every minute a person in cardiac arrest goes without being successfully treated by defibrillation, the chance of survival decreases by 7 percent in the first, and decreases by 10 percent per minute as time advances past 3 minutes;

AND WHEREAS, Andrew Stoddart, a 15 year old boy, passed away while playing soccer in Kintore, Ontario, an AED on site may have increased his odds of survival. Andrew's Legacy Foundation has currently purchased 22 AEDs for across Oxford County, including all three elementary schools in Zorra Township;

AND WHEREAS, Thames Valley District School Board has yet to put together a policy for having AED's in place in all, or any, of their public elementary and secondary schools;

THEREFORE BE IT RESOLVED THAT the Municipality of Thames Centre requests that the Premier, and Minister of Education, develop a policy that enables all schools and school boards in Ontario, including the Thames Valley District School Board, that allows individual elementary and secondary schools to have an AED installed in their schools;

AND THAT the Municipality of Thames Centre request that the Thames Valley District School Board and all other schools in Ontario develop a policy to install AEDs in all schools as soon as possible for the safety of our children.

AND THAT this resolution be sent to the Premier, Minister of Education, AMO, Thames Valley District School Board; Middlesex County; and all Ontario Municipalities for consideration and support."

INFO 8
MAR 16 2017

The Council is very concerned with this issue and respectfully requests that further consideration be given to ensure a policy is developed that enables all schools and school boards in Ontario, including the Thames Valley District School Board, and that allows individual elementary and secondary schools to have an AED installed in their schools.

Thank you.

Sincerely,

The Corporation of the Municipality of Thames Centre

Jim Maudsley
Mayor

cc: Minister Mitzie Hunter, Education
Association of Municipalities of Ontario (AMO)
Laura Elliott, Director, Thames Valley District School Board
Kathy Bunting, Clerk, Middlesex County
All Ontario Municipalities
Kerby Waud, Principal, River Heights Public School
Catherine Zeisner, Principal, Northdale Central Public School
Suzanne Terpstra, Principal, St. David Catholic School
Cathy Johnston, Principal, West Nissouri Public School
Christine Vitsentzatos, Principal, Lord Dorchester Secondary School

**Ministry of Community Safety and Correctional Services**

Office of the Fire Marshal and Emergency Management

25 Morton Shulman Avenue
Toronto ON M3M 0B1
Tel: 647-329-1100
Fax: 647-329-1143

**Ministère de la Sécurité communautaire et des Services correctionnels**

Bureau du commissaire des incendies et de la gestion des situations d'urgence

25, avenue Morton Shulman
Toronto ON M3M 0B1
Tél: 647-329-1100
Téléc: 647-329-1143

Ontario

Date: March 6, 2017

To: Emergency Management Officials

From: Ross Nichols
Fire Marshal and Chief, Emergency Management
Office of the Fire Marshal and Emergency Management
Ministry of Community Safety and Correctional Services

Shelley Tapp
Assistant Deputy Minister and Chief Administrative Officer
Corporate Services Division
Ministry of Transportation

Re: **Transportation of Radioactive Materials in Ontario**

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We are pleased to announce the release of new awareness materials to support emergency preparedness and response activities related to transportation incidents involving radioactive materials.

As you are likely aware, a variety of radioactive materials are routinely transported on Ontario roads. In general these shipments pose a minimal risk to public health and safety due to strict packaging and safety standards (outlined in Transport Canada's *Transportation of Dangerous Goods Regulation* and by the Canadian Nuclear Safety Commission's *Packaging and Transport of Nuclear Substances Regulation*). Despite this low risk, both the Ministry of Transportation and the Office of the Fire Marshal and Emergency Management recognize the importance of ensuring that communities know how to prepare for - and respond appropriately to - these incidents.

The attached slide deck provides background information on types of radiation, the materials being transported in Ontario, and appropriate response actions. Also attached is a fact sheet on Highly Enriched Uranium/Highly Enriched Uranyl Nitrate (HEU/HEUNL). As indicated in recent media reports, HEUNL will be repatriated from Chalk River to the United States under the *Global Threat Reduction Initiative*. The first

shipments are expected to begin this Spring. It is our understanding that the routes will not be publicized by the federal government.

If you have any questions or require further information on these new products please contact Stephanie Maragna of the Ministry of Transportation at stephanie.maragna@ontario.ca or Jonathan Stone of the Ministry of Community Safety and Correctional Services at jonathan.stone@ontario.ca.

We appreciate your ongoing emergency management and transportation safety efforts.

Sincerely,

Ross Nichols
Fire Marshal and Chief, Emergency Management
Office of the Fire Marshal and Emergency Management
Ministry of Community Safety and Correctional Services

Shelley Tapp
Assistant Deputy Minister and Chief Administrative Officer
Corporate Services Division
Ministry of Transportation

Ontario

# Fact Sheet / Frequently Asked Questions: Highly Enriched Uranium

## What is Highly Enriched Uranium?

- Highly Enriched Uranium (HEU) is natural uranium that has been enriched to raise the proportion of Uranium-235 to exceed 20%. This is in contrast to natural uranium which has a proportion of Uranium-235 of less than 1%.
- In Canada, HEU was used as fuel in research reactors and as target for the production of medical isotopes.

## What is Highly Enriched Uranyl Nitrate Liquid (HEUNL)?

- Highly Enriched Uranyl Nitrate Liquid or HEUNL is Highly Enriched Uranium (HEU) in liquid solution. HEUNL is a liquid by-product of medical isotope production from the Canadian Nuclear Laboratories (CNL) in Chalk River, Ontario.

## Why is HEU/HEUNL moving from Canada to the United States?

- As a part of the Global Threat Reduction Initiative the Federal Government is shipping HEU/HEUNL, from CNL Chalk River facility by road to the Savannah River site in South Carolina.
- Under this initiative the Federal Government of Canada has agreed to complete all shipments by the end of 2018.

## How will HEU/HEUNL be transported?

- HEU/HEUNL is transported via roadway in packages that are specifically designed and certified by both the Canadian Nuclear Safety Commission (CNSC) and its U.S. counterpart, the Nuclear Regulatory Commission, to meet international safety requirements.
- Packages used for the transportation of HEU/HEUNL are designed to withstand potential accidents and undergo stringent testing for worst case scenarios that are based on international standards. The testing includes a 9-metre free drop test, a puncture or penetration test, a thermal or fire-engulfing test, and a water immersion test.

**How is the transportation of HEU/HEUNL and other radioactive materials regulated in Canada?**

- The responsibility for ensuring safe transport of radioactive materials is jointly shared between the CNSC and Transport Canada.
- Consignors and carriers of radioactive materials must comply with both the *Packaging and Transport of Nuclear Substances Regulations, 2015* (PTNSR) and the *Transportation of Dangerous Goods Regulations* (TDGR).
- Radioactive materials are transported using packages that meet CNSC regulatory requirements and in some cases (e.g. packages used to transport HEU) the package designs have been certified by the CNSC.
- The transportation of HEU/HEUNL requires a Transport Licence issued by the CNSC prior to shipment. Detailed security plans for each shipment are a licensing requirement.
- Under the *Transportation of Dangerous Goods Act* transporters are required to report any actual or anticipated releases.
- Pursuant to the TDGR, prior to the transport of certain dangerous goods that exceed a specified value, a Transport Canada approved Emergency Response Assistance Plan (ERAP) is required.

**What security and safety measures are in place in anticipation of the shipments of HEU/HEUNL?**

- Shipments of HEU/HEUNL must have a security plan in place that is approved by the CNSC. The approved security plan must include a threat assessment, proposed security measures in place during transport, communication agreements between the carrier and response forces, and primary and alternate transportation routes.
- A Transport Canada approved ERAP is required for the transport of HEU/HEUNL. An ERAP is intended to assist local emergency responders by providing them with access to technical experts and specially trained/equipped emergency response personnel at the scene of a transportation incident.
- Transport Canada regulations also require a 24-hour emergency telephone number on all shipping documents that accompany each shipment.

**Additional Resources:**

- Provincial Resources for Hazmat/CBRNE Incident Response and HUSAR
  http://www.mcscs.jus.gov.on.ca/english/FireMarshal/FireServiceResources/Communiques/OFM_Com_2016-05.html

- Transport Canada – CANUTEC
  www.tc.gc.ca/eng/canutec/menu.htm

- Canadian Nuclear Safety Commission – Highly Enriched U ranium in Canada
  http://nuclearsafety.gc.ca/eng/reactors/research-reactors/nuclear-facilities/chalk-river/highly-enriched-uranium-in-canada.cfm

- Ministry of Health and Long-Term Care – Radiation Health Response Plan
  http://www.health.gov.on.ca/en/pro/programs/emb/rhrp/

- Canadian Nuclear Safety Commission – The Safe Transport of Highly Enriched Uranium
  http://www.nuclearsafety.gc.ca/cnsconline/fl/index-eng.cfm

- Canadian Nuclear Laboratories – "A commitment to global safety and security"
  http://www.cnl.ca/en/home/environmental-stewardship/repatriation/default.aspx

Ontario

# Transportation of Radioactive Materials in Ontario

## Information Package

Prepared by the Ministry of Transportation and
Ministry of Community Safety and Correctional Services

# Table of Contents

# Introduction

- The Ministry of Transportation (MTO) and the Ministry of Community Safety and Correctional Services (MCSCS) have developed this *Transportation of Radioactive Materials in Ontario* Information Package to enhance first responder and emergency management stakeholders' preparedness for an incident involving the transportation of radioactive materials.

- This information package aims to raise general awareness about the transportation of radioactive materials in Ontario, including Highly Enriched Uranium (HEU)/Highly Enriched Uranyl Nitrate (HEUNL).

Ontario

# Background

- Approximately 1 million packages containing radioactive materials are safely transported in Canada every year.
- Radioactive materials come in a variety of types, and when transported, are subject to stringent safety regulations to protect the public in the event of a transportation incident.
- The transportation of radioactive materials in Ontario poses minimal risk to public health and safety.

# Objectives

The objective of this Information Package is to provide first responders and emergency management stakeholders with information on:

1) The regulatory requirements for the transportation of radioactive materials;
2) Basics of radiation and potential health consequences;
3) What types of radioactive materials are being transported in Ontario;
4) Available resources to inform first responders and emergency management stakeholders in the event of a transportation incident involving radioactive materials; and
5) Where to access additional resources.

# Section 1: Regulatory Framework


Ontario

## Regulatory Framework

# Overview

- Canada is one of many countries that regularly transport radioactive materials. As such, all regulations are based on international standards and best practices as defined by the International Atomic Energy Agency (IAEA).
- The federal government regulates the shipment of radioactive materials; the provincial and municipal governments have responsibilities regarding the response to a transportation incident and would receive support from the consignor and federal agencies.
- The regulatory framework for the transportation of radioactive material and the emergency response to a potential incident involving such transportation involves multiple stakeholders.

# Federal Regulatory Framework

Transportation of radioactive material is jointly regulated by:


**Transport Canada**

- Transportation of Dangerous Goods Regulations (TDG).
- Sets transportation requirements for all nine classes of dangerous goods.

**Canadian Nuclear Safety Commission (CNSC)**

- Packaging and Transport of Nuclear Substances Regulations, 2015 (PTNSR).
- Based on International Atomic Energy Agency (IAEA) Standards.
- Sets transportation packaging and classification requirements.

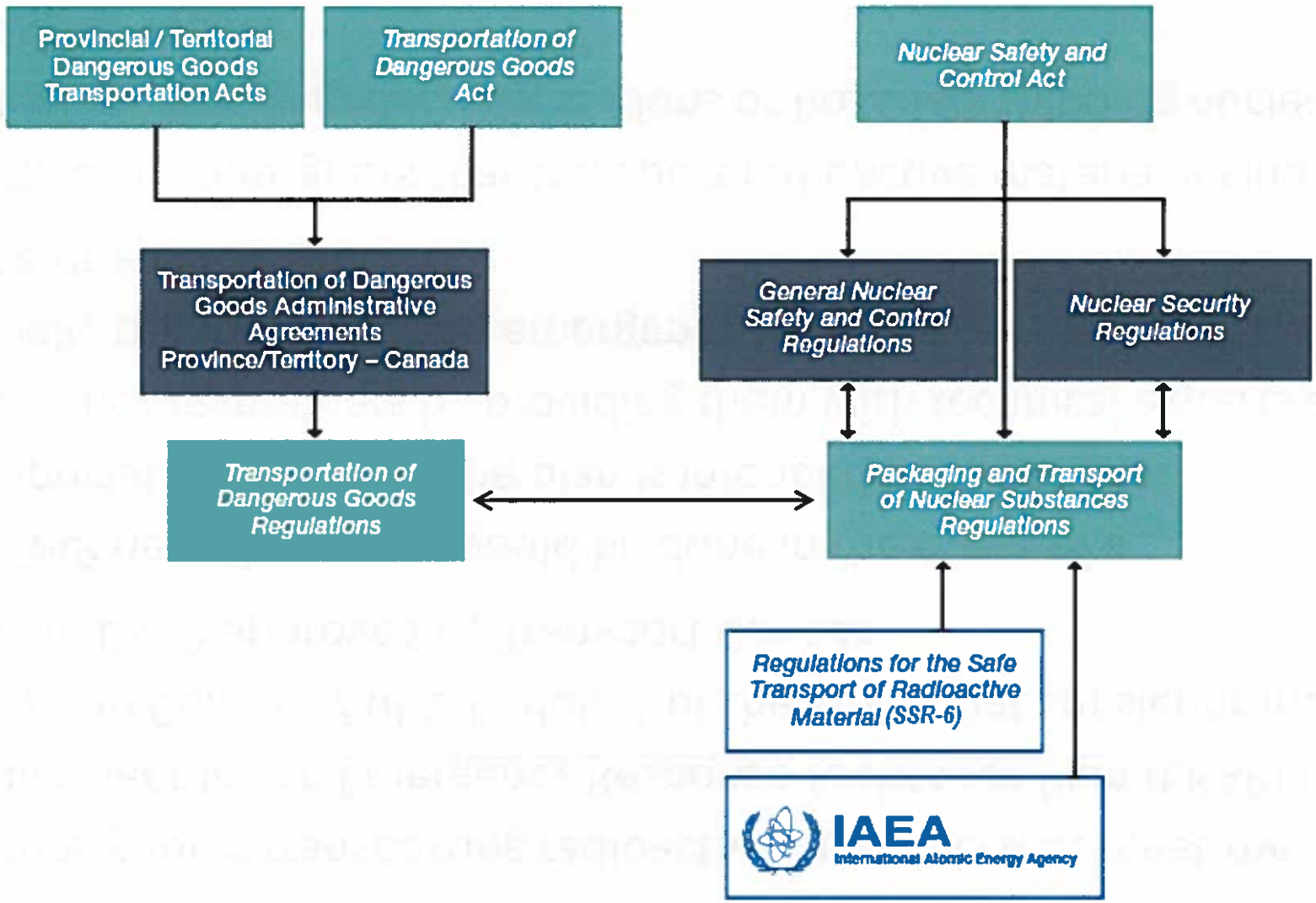



Chart illustrates International and Federal Regulatory Frameworks

Ontario

# Consignors' Roles and Responsibilities

**Consignors**

- If a consignor is transporting radioactive materials that meet the requirement for an Emergency Response Assistance Plan (ERAP) (see Part 7 and Column 7 of Schedule 1 of the TDG), that consignor must have an ERAP approved by Transport Canada.
- An ERAP describes what would be done in the event of a transportation incident. The plan is intended to assist local emergency responders by providing them with technical experts and specially trained/equipped emergency response personnel at the scene of an incident.
- Examples of consignors that transport radioactive material include nuclear electricity generating stations or hospitals shipping nuclear medicinal waste.

# Municipal and Provincial Roles and Responsibilities

**Municipalities**

- Responsible for taking appropriate measures to protect public health and safety within their jurisdiction

**Province of Ontario**

- The *Provincial Nuclear Emergency Response Plan* provides the framework for the overarching nuclear emergency response for the Government of Ontario and governs the response to nuclear and radiological emergencies in the province.
- The Province can provide coordination and support for the emergency response to a transportation incident involving radioactive material.
- Various provincial ministries have responsibilities under Order in Council 1157/2009 to respond to radiological and/or transportation incidents.

Ontario

# Section 2: Radiation Basics

Ontario

## Radiation Basics

# Overview

- There are some radioactive materials that pose minimal threat to public health and safety, while others should be handled with extreme caution.

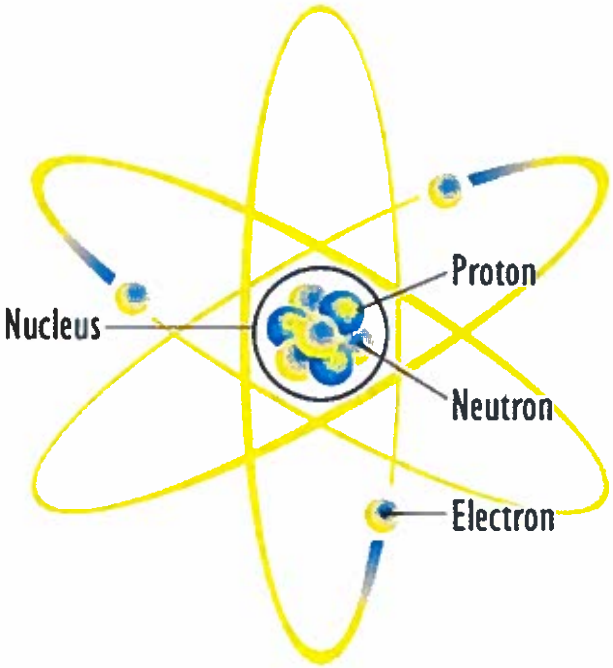
- This section will identify what radiation is and identify methods to reduce the potential health consequences of radiation exposure or contamination.

# What is Radiation?

- Radiation is energy in the form of high speed particles and electromagnetic waves that can be found everywhere (e.g. visible light, radio and television waves, microwaves, and cosmic rays).

- **Non-Ionizing Radiation:** Does not have enough energy to ionize* molecules but can damage cells and tissue. It represents a low risk to human health (e.g. sunlight, microwaves).

- **Ionizing Radiation:** Is radiation that carries enough energy to free electrons from atoms and molecules, thereby ionizing them. A potentially high risk to human health (e.g. x-rays, gamma radiation).



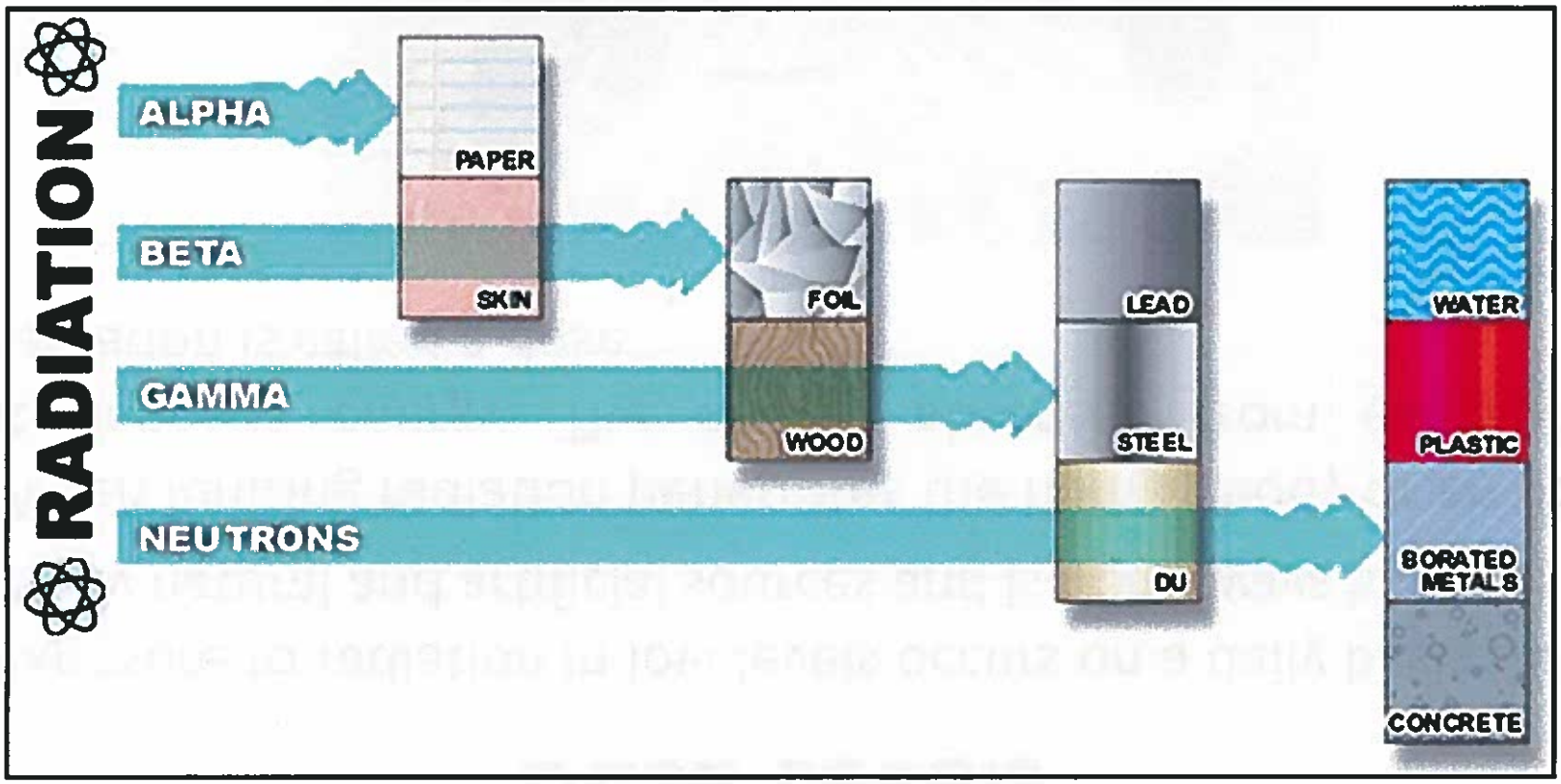

**Ionization refers to the action of creating ions by ejecting an electron from an atom or molecule.*

Ontario

## Radiation Basics

# Ionizing Radiation Types

The most common types of ionizing radiation are alpha (α), beta (β), and gamma (γ); neutrons are a fourth type. The image below shows the different types of radiation and the level of shielding required to reduce or eliminate the dose rate.




Source: Ministry of Health and Long Term Care, Radiation Health Response Plan

Ontario

## Radiation Basics

# Dose Levels

- Exposure to radiation in low levels occurs on a daily basis through many natural and artificial sources and is not always harmful.
- When ionizing radiation penetrates the human body or an object, it deposits energy. The energy absorbed from exposure to radiation is called a dose.


Source: Canadian Nuclear Safety Commission

Ontario

## Radiation Basics

# Exposure vs. Contamination

It is important to know the difference between radiation exposure and contamination.

### Exposure

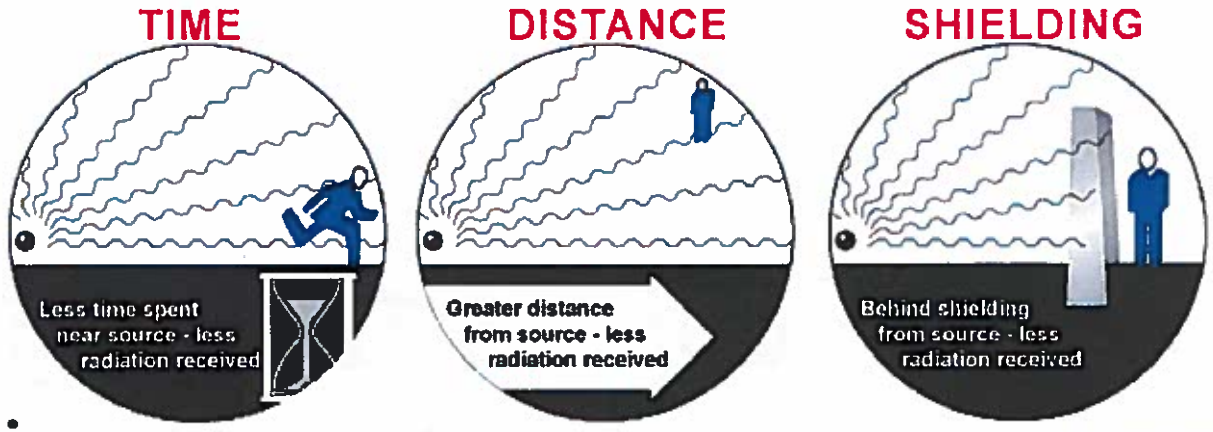
- The act or condition of being subject to irradiation (the process by which an organism or object is exposed to radiation) either externally or internally.
- The significance of radiation exposure to individuals depends on its duration, the nature of the source, the proximity to the source and the availability and nature of shielding.
- It is possible for a person to be exposed to radiation yet not be contaminated. People who have been exposed do not pose a risk to others interacting with them.
- Exposure takes place as long as radioactive atoms stay near, on, or in the body.

Ontario

# Radiation Basics
# Reducing External Exposure

Reducing exposure to an **external** dose of radiation can be achieved by using the following principles:

1. **Time:** Minimize time spent in a radiation field. The dose received is directly proportional to time spent at that location.
2. **Distance:** Increase the distance from a radioactive source in order to decrease the dose rate.
3. **Shielding:** Provide a shield between the person and the radioactive source in order to reduce or eliminate the dose rate.




Ontario

## Radiation Basics

# Reducing Internal Exposure

Internal exposure is only possible through ingestion, inhalation or absorption of a radioactive source. Reducing **internal** radiation exposure can be achieved through the following actions:

- Wear appropriate personal protective equipment;
- Control the spread of loose contamination;
- Decontaminate individuals and items in a timely manner; and,
- Get treatment with appropriate pharmaceuticals in a timely manner (e.g., potassium iodide, Prussian blue).

Potassium Iodide (KI) tablets

Ontario

# Exposure vs. Contamination

## Contamination

- Contamination refers to when radioactive material is deposited in water or air, or on the surfaces of structures, areas, objects, or people. Contamination of humans can be internal or external.
- **External contamination** refers to materials containing radioactive isotopes that are deposited on the skin. This can usually be removed with soap and water.
- **Internal contamination** refers to radioactive material that is taken into the body through inhalation, ingestion, or absorbed through skin or wounds. This is more difficult to remove and requires sophisticated treatment.
- The effects of contamination are related to the amount of radiation to which an individual is exposed, the length of time of exposure, and the part(s) of the body affected. Human health impacts can range from very mild and self-limiting effects such as reddening of the skin to severe burns, organ failure, and death; these effects can occur days to months after a serious incident.

## Radiation Basics

# Contamination Control Practices

- In order to reduce the chances of becoming contaminated, individuals should:
  - Understand the principles of time, distance and shielding;
  - Wear personal protective equipment that provides the highest level of skin and respiratory protection; and,
  - Control the spread of loose contamination.

- If contamination does occur:
  - Decontaminate individuals and items in a timely manner; and,
  - Get treatment with appropriate pharmaceuticals in a timely manner.

Ontario

# Section 3: Transportation of Radioactive Materials

Ontario

# Transportation of Radioactive Materials

# Packaging

- All packages used for the transport of radioactive material must meet certain safety and performance requirements as stated in IAEA regulations.
- The objectives of the regulations are to protect the health and safety of persons and the environment.
- The greater the radioactivity, the more robust the package.
- Depending on the material to be transported, the following types of packages may be used to transport radioactive materials:

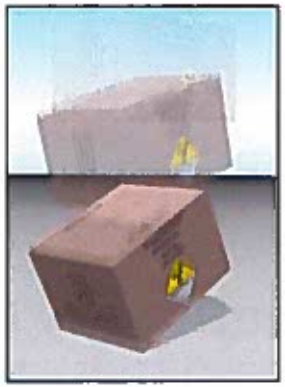
| | |
|---|---|
| Excepted Packages | Type H package* |
| Industrial Type Packages | Type B Package* |
| Type A package* | Fissile Material packages |

*** The design of these package types must be certified by the Canadian Nuclear Safety Commission before they can be used.**

Ontario

# Packaging: Excepted, Industrial, and Type A

- The contents of these packages pose minimal threat to public health and safety based on their radioactive levels.
- Industrial and Type A packages are designed to withstand a series of tests that simulate normal conditions of transport without loss of content and with limited increase to the dose rate on the exterior of package.
- Some of the tests these packages must be able to pass include:



Drop test: A 1.2-metre (47 in) drop test onto an unyielding surface

Penetration test: dropping a metal bar onto the package

Water spray test: simulating rain fall

Stacking test

# Transportation of Radioactive Materials

# Types of Packaging

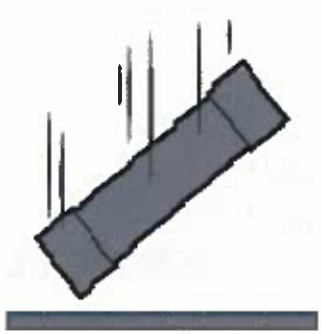
| Type | Use | Example | Photo |
|---|---|---|---|
| **Excepted Package** | Transport very small quantities of radioactive materials | • Empty packages previously containing radioactive material<br>• Smoke detectors<br>• Medical isotopes |  Medical Isotopes Container |
| **Industrial Package** | Transport low specific activity (LSA) material and surface contaminated objects (SCO) | • Uranium ores and concentrates<br>• Low-level radioactive waste (contaminated paper towels, gloves, etc.) |  Uranium Ore Containers |
| **Type A Package** | Transport quantities of radioactive materials that pose minimal risk to human health or safety or the environment | • Medical isotopes<br>• industrial devices (portable nuclear densometer gauges) |  Type A package and label |

Ontario

# Transportation of Radioactive Materials

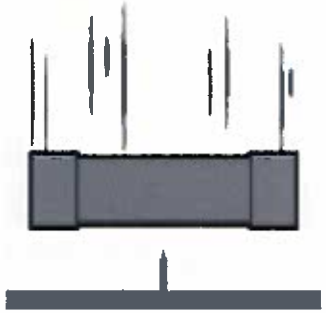
# Packaging: Type H, Type B and Fissile Material

- Type B packages are very robust with radiation shielding, and remain intact even under accident conditions of transport.
- Type B packages must withstand the same normal transportation conditions as Type A packages, as well as testing to simulate accident conditions.
- Packages used to transport fissile material must remain sub-critical when subjected to the tests for Type B packages.
- Before these packages can be used in Canada they require certification by the CNSC by undergoing stringent testing, including:



FREE DROP

A 9-metre (30-foot) free-fall onto an unyielding surface

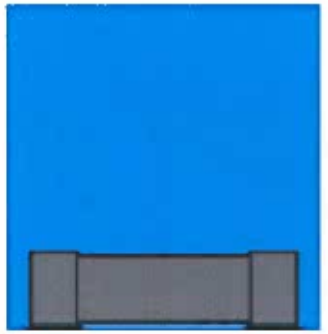


PUNCTURE

A 1-metre (40-inches) free-fall onto a steel rod

THERMAL

A 30-minute, fully-engulfing fire at 800° (1475°)



IMMERSION

An 8-hour immersion under water

Ontario

# Transportation of Radioactive Materials

# Types of Packaging

| Type | Use | Example | Photo |
|---|---|---|---|
| **Type H** | Transport uranium hexafluoride (UF6) | • UF6 is a compound used in the uranium enrichment process that produces fuel for nuclear reactors |  Type H Package |
| **Type B** | Transport highly radioactive materials | • Cobalt sources<br>• Exposure devices<br>• Used nuclear fuel from CANDU reactors |  Type B Package (Exposure Device) |
| **Fissile Material** | Transport radioactive materials that are fissile | • Highly enriched uranium (HEU/HEUNL)<br>• High-level radioactive waste |  Type B Fissile Package |

Ontario

# Transportation of Radioactive Materials

# In the Media: HEU/HEUNL

- As a part of the Global Threat Reduction Initiative the Federal Government is shipping Highly Enriched Uranium (HEU and HEUNL) from Canadian Nuclear Laboratories' (CNL) Chalk River facility by road to Savannah River, South Carolina.
  - This initiative removes existing weapons-grade material from Canada and eliminates a nuclear liability for future generations of Canadians.
- HEU/HEUNL is transported via roadway in packages that are certified by both the Canadian Nuclear Safety Commission (CNSC) and its U.S. counterpart, the Nuclear Regulatory Commission, to meet international safety requirements.
- These packages are very robust, designed to withstand potential accidents and undergo strict testing for based on international standards.
- Transport of HEU/HEUNL is subject to the same regulatory packaging and transport requirements as all other radioactive materials.

# Transportation of Radioactive Materials

# Highly Enriched Uranium

## What is it?

- Highly Enriched Uranium (HEU) is natural uranium that has been enriched to raise the proportion of Uranium-235 to exceed 20%, in contrast to natural uranium which has a proportion of Uranium-235 of less than 1%.
- In Canada, HEU was used as fuel in research reactors and as target for the production of medical isotopes.
- Enriched Uranyl Nitrate Liquid (HEUNL) is Highly Enriched Uranium in a liquid solution.


Natural Uranium

- Less than 1% Uranium-235
- Used in CANDU Nuclear Power Reactors


Low-Enriched Uranium

- Less than 20% Uranium-235
- Used in light-water nuclear reactors, like those in the United States


Highly Enriched Uranium (HEU)

- More than 20% Uranium-235
- Used to make medical isotopes

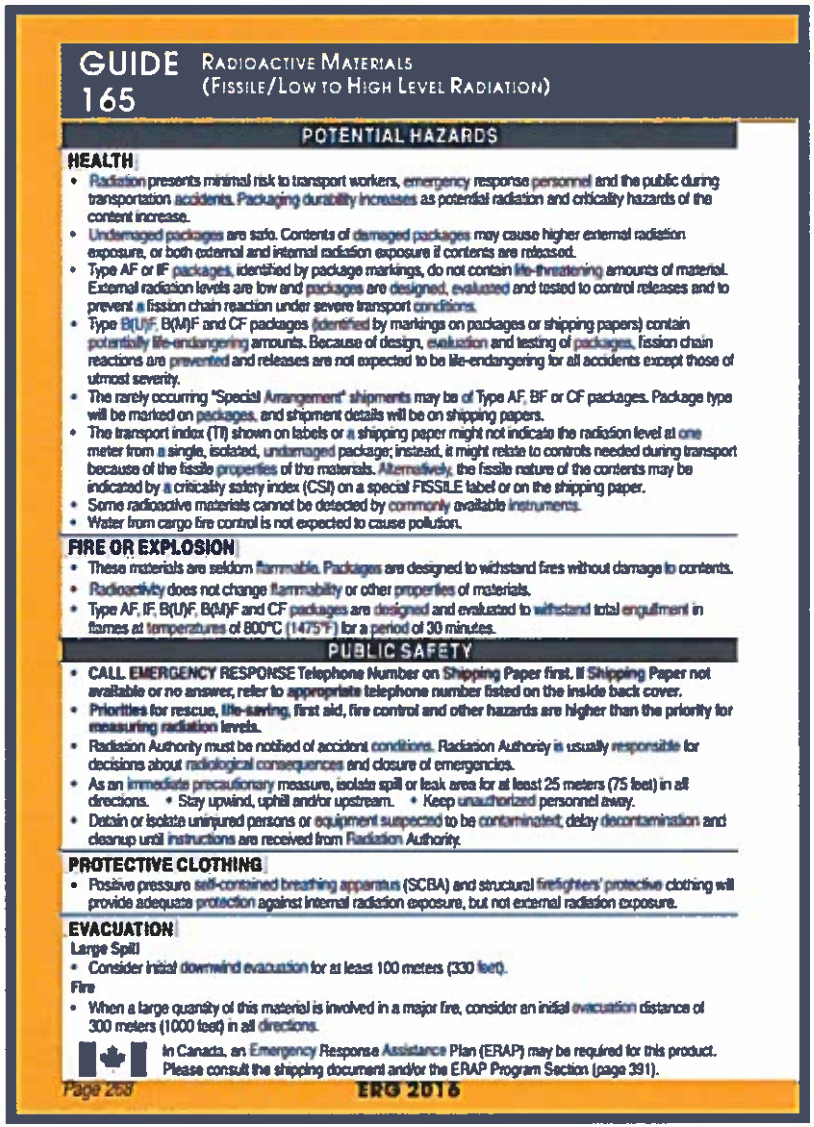
Ontario

*Source: Canadian Nuclear Safety Commission*

# Transportation of Radioactive Materials

# Transportation of HEU/HEUNL: Incident Response

- In the event of an incident involving packages containing HEU/HEUNL First Responders will follow the same procedures they would for other fissile radioactive material (See Emergency Response Guide 165).
- Note: An Emergency Response Assistance Plan (ERAP) is required for the transportation of HEU/HEUNL.
- For more information on Response Measures see Section 4.



GUIDE 165 RADIOACTIVE MATERIALS (FISSILE/LOW TO HIGH LEVEL RADIATION)

POTENTIAL HAZARDS

**HEALTH**

- Radiation presents minimal risk to transport workers, emergency response personnel and the public during transportation accidents. Packaging durability increases as potential radiation and criticality hazards of the content increase.
- Undamaged packages are safe. Contents of damaged packages may cause higher external radiation exposure, or both external and internal radiation exposure if contents are released.
- Type AF or IF packages, identified by package markings, do not contain life-threatening amounts of material. External radiation levels are low and packages are designed, evaluated and tested to control releases and to prevent a fission chain reaction under severe transport conditions.
- Type B(U)F, B(M)F and CF packages (identified by markings on packages or shipping papers) contain potentially life-endangering amounts. Because of design, evaluation and testing of packages, fission chain reactions are prevented and releases are not expected to be life-endangering for all accidents except those of utmost severity.
- The rarely occurring "Special Arrangement" shipments may be of Type AF, BF or CF packages. Package type will be marked on packages, and shipment details will be on shipping papers.
- The transport index (TI) shown on labels or a shipping paper might not indicate the radiation level at one meter from a single, isolated, undamaged package; instead, it might relate to controls needed during transport because of the fissile properties of the materials. Alternatively, the fissile nature of the contents may be indicated by a criticality safety index (CSI) on a special FISSILE label or on the shipping paper.
- Some radioactive materials cannot be detected by commonly available instruments.
- Water from cargo fire control is not expected to cause pollution.

**FIRE OR EXPLOSION**

- These materials are seldom flammable. Packages are designed to withstand fires without damage to contents.
- Radioactivity does not change flammability or other properties of materials.
- Type AF, IF, B(U)F, B(M)F and CF packages are designed and evaluated to withstand total engulfment in flames at temperatures of 800°C (1475°F) for a period of 30 minutes.

PUBLIC SAFETY

- CALL EMERGENCY RESPONSE Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.
- Priorities for rescue, life-saving, first aid, fire control and other hazards are higher than the priority for measuring radiation levels.
- Radiation Authority must be notified of accident conditions. Radiation Authority is usually responsible for decisions about radiological consequences and closure of emergencies.
- As an immediate precautionary measure, isolate spill or leak area for at least 25 meters (75 feet) in all directions. • Stay upwind, uphill and/or upstream. • Keep unauthorized personnel away.
- Detain or isolate uninjured persons or equipment suspected to be contaminated; delay decontamination and cleanup until instructions are received from Radiation Authority.

**PROTECTIVE CLOTHING**

- Positive pressure self-contained breathing apparatus (SCBA) and structural firefighters' protective clothing will provide adequate protection against internal radiation exposure, but not external radiation exposure.

**EVACUATION**

Large Spill

- Consider initial downwind evacuation for at least 100 meters (330 feet).

Fire

- When a large quantity of this material is involved in a major fire, consider an initial evacuation distance of 300 meters (1000 feet) in all directions.

In Canada, an Emergency Response Assistance Plan (ERAP) may be required for this product. Please consult the shipping document and/or the ERAP Program Section (page 391).

Page 268 ERG 2016

Ontario

# Section 4: Response Measures


Ontario

## Response Measures

# Placards

Vehicles transporting Class 7 Radioactive Materials must display placards if one of the following conditions is met:

- Packages display the III-Yellow labels
- An ERAP is required for the material (UN# also required)
- More than 500kg gross mass (total weight of material and package) is transported

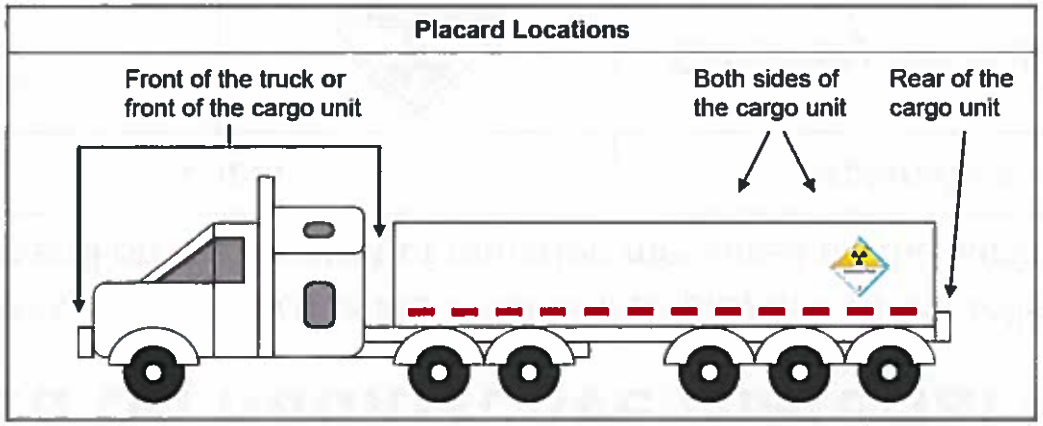

Ontario

# Response Measures

# Placards and UN Number

**Example of a Placard for a Large Means of Containment**
Radioactive Material, Type B Package, Fissile, UN 3328 Class 7


**Placard Locations**




Ontario

# Response Measures

# Labels used on Radioactive Material Packages

Packages used to transport radioactive materials will display one of the following transport labels which will depend on the amount of radiation measured on the surface of the package.

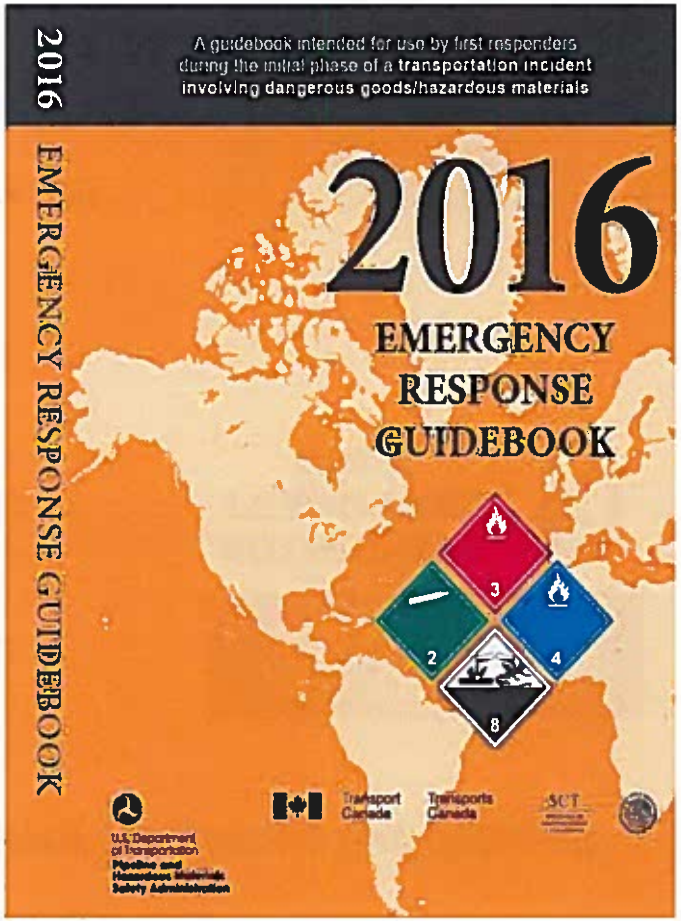
| Label | | Explanation |
|---|---|---|
| I-White |  | Extremely low radiation levels |
| II-Yellow |  | Low radiation levels |
| III-Yellow |  | Higher radiation levels |
| Fissile |  | Fissile Materials |
| No Label | N/A | Excepted packages |

Ontario

## Response Measures

# Emergency Response Guidebook

- Intended for use by first responders during a transportation incident involving dangerous goods.
- Aid in quickly identifying specific or generic hazards of the material(s) involved in an incident, and in protecting first responders and the general public during the initial response phase of an incident.
- **Guide 161 to 166** (pages 260 to 271) address Class 7 Radioactive Materials.
- It can be found online here.



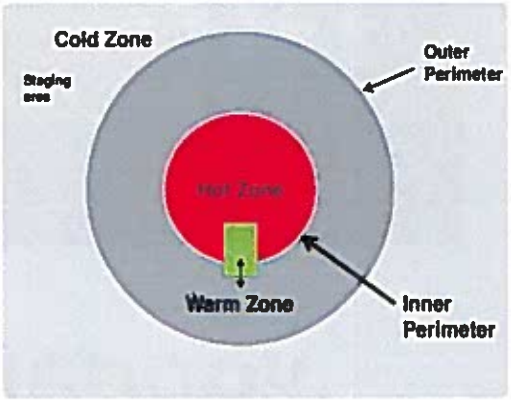

Ontario

# Response Measures

# Public Safety Measures

## Summary of Guides 161 to 166 of the Emergency Response Guidebook

- Priorities for rescue, life-saving, first aid, fire control and other hazards are higher than the priority for measuring radiation levels.
- As an immediate precautionary measure, isolate location at least 25 metres in all directions.
- Stay upwind, uphill and/or upstream.
- Keep unauthorized personnel away.
- Detain or isolate uninjured persons or equipment suspected to be contaminated.
- If there is a package breach, delay decontamination and cleanup until instructions are received from ***Radiation Authority,*** **Canadian Nuclear Safety Commission.**


Ontario

## Response Measures

# Emergency Response Assistance Plan (ERAP)

**What does it do?**

- The plan is intended to assist local emergency responders by providing them with access to technical experts and specially trained and equipped emergency response personnel at the scene of an incident.
- Describes the specialized response capabilities, equipment and procedures that will be used to support a response to incidents involving high-risk dangerous goods.

**ERAP and Radioactive Materials**

- If a shipment of radioactive material requires an ERAP, it will be provided by the consignor.

  Example: CNL has an ERAP in place and approved by Transport Canada which covers the transport of HEU in solid and liquid form

## Response Measures

# Emergency Response Assistance Plan (ERAP)

### Where do I find ERAP information?

- *Transportation of Dangerous Goods Regulations* requires that the ERAP reference number and activation telephone number be present on the shipping documents.

| | | |
|---|---|---|
| Examples: | 2-2021 ERP: | 613-123-4567 |
| | ERAP 2-2021: | 316-123-4567 |
| | PIU 2-2021: | 613-123-4567 |

- For a road vehicle, shipping documents should be within the driver's reach or clearly visible when the vehicle is unattended.
- For more information on ERAPs click here.

Ontario

## Response Measures

# Emergency Response Assistance Plan (ERAP)

***First responders are reminded to only undertake actions consistent with their training and level of equipment.***

### How is it activated?

When arriving at the scene of a transportation incident involving radioactive materials, the following steps are advised:

1. **Consult the Emergency Response Guide and follow applicable guidelines**
2. **Locate the ERAP Number on shipping document**
3. **Call the ERAP activation telephone number**
4. **If the ERAP cannot be located, call CANUTEC**
5. **Call the Spills Action Centre to advise of incident**

- In an emergency CANUTEC may be contacted 24/7 at **1-888-CANUTEC (226-8832)** / **613-996-6666** or by dialing ***666** on a cellular device within Canada.
- In an emergency, the CNSC can be contacted 24/7 at **1-844-879-0805** or **613-995-0479**
- The Spills Action Centre can be contacted 24/7 at **1-800-268-6060**.

Ontario

# Section 5: Additional Resources and Information

Ontario

Ontario

# Additional Resources

**Provincial Resources for Hazmat/CBRNE Incident Response and HUSAR**
http://www.mcscs.jus.gov.on.ca/english/FireMarshal/FireServiceResources/Communiques/OFM_Com_2016-05.html

**Transport Canada - CANUTEC**
www.tc.gc.ca/eng/canutec/menu.htm

**Canadian Nuclear Safety Commission – Highly enriched uranium in Canada**
http://nuclearsafety.gc.ca/eng/reactors/research-reactors/nuclear-facilities/chalk-river/highly-enriched-uranium-in-canada.cfm

**Canadian Nuclear Safety Commission – The Safe Transport of Highly Enriched Uranium**
http://www.nuclearsafety.gc.ca/cnsconline/fl/index-eng.cfm

**Canadian Nuclear Laboratories – "A commitment to global safety and security"**
http://www.cnl.ca/en/home/environmental-stewardship/repatriation/default.aspx

**Ministry of Health and Long-Term Care – Radiation Health Response Plan**
http://www.health.gov.on.ca/en/pro/programs/emb/rhrp/

**Health Canada's online course METER: Basic Concepts of Radiation and Protection Principles(for first receivers in a health care setting):**
https://training-formation.phac-aspc.gc.ca/course/index.php?categoryid=5&lang=en%20training%20(for%20first%20receivers%20in%20health%20care)

**NFPA 472: Standard for Competence of Responders to Hazardous Materials/Weapons of Mass Destruction Incidents**
http://www.nfpa.org/codes-and-standards/all-codes-and-standards/list-of-codes-and-standards?mode=code&code=472

**Emergency Management and Nuclear Security - CNSA**
http://nuclearsafety.gc.ca/eng/resources/emergency-management-and-safety/index.cfm

**If First Responders are in interested in receiving training in emergency response involving radioactive material, they can communicate with CNSC at cnsc.information.ccsn@canada.ca.**

# Conclusion

- Reader should now have a basic understanding of:

  - ✓ Regulatory requirements for the transportation of radioactive materials
  - ✓ Basics of radiation and potential health consequences
  - ✓ How radioactive materials are transported in Ontario
  - ✓ First Responder resources available in the event of transportation incident involving radioactive materials
  - ✓ Where to access further information

- If you have any questions or require further information please contact askofmem@ontario.ca.

Ontario

Regular Council Meeting Resolution Form

| | | | |
|---|---|---|---|
| Date: | February 21, 2017 | No: | RESOLUTION - 86-2017 |
| Moved by Councillor Brum | | Disposition: | CARRIED. |
| Seconded by Councillor Lang | | Item No: | 10.1 |

Description: Mandatory Septic Pumping

**RESOLUTION:**

**WHEREAS** the MMAH has proposed a change to the Building Code, B-08-09-03, requiring mandatory five year septic tank pump out and records retention by the owner;
**AND WHEREAS** that same change requires Municipalities to administer and enforce this change;
**AND WHEREAS** the change document fails to identify the administrative costs to Municipalities;
**AND WHEREAS** the change document fails to identify any transfer of Provincial funding to offset these additional downloaded costs;
**AND WHEREAS** the majority of homeowners pump out their septic tanks on a regular basis whether regulated to or not;
**AND WHEREAS** there are many more important issues on which to spend taxpayer's money than "enhancing" maintenance on existing functioning systems;
**AND WHEREAS** adequate legislation already exists to correct malfunctioning systems;
**THEREFORE BE IT RESOLVED THAT** Council of the Township of McNab/Braeside encourage the Ministry of Municipal Affairs to take our concerns very seriously with regards to the proposed change to the Building Code B-08-09-03 and to ask that this proposed change be rescinded;
**AND FURTHER THAT** this resolution be sent to the Minister of Municipal Affairs and Housing, John Yakabuski, MPP, all rural Ontario municipalities, all northern Ontario municipalities, NOMA, ROMA, the City of Ottawa, the Rural Mayors Forum of Eastern Ontario and circulated to all municipalities in Renfrew County for support.

MAYOR

Recorded Vote Requested by:_____

| | Yea | Nay |
|---|---|---|
| T. Peckett | ___ | ___ |
| B. Armsden | ___ | ___ |
| H. Lang | ___ | ___ |
| M. MacKenzie | ___ | ___ |
| S. Brum | ___ | ___ |

Declaration of Pecuniary Interest:_____

Disclosed his/her/their interest(s), vacated he/her/their seat(s), abstained from discussion and did not vote



INFO 10
MAR 16 2017

**Denise Holmes**

**From:** Debra Robinson <42robinson@rogers.com>
**Sent:** Monday, February 27, 2017 10:02 AM
**To:** Debra Robinson
**Subject:** Fw: Raise the Flag for Autism Awareness

Debra Robinson
Parent Volunteer Autism Ontario-Peel Chapter
Past President

On Monday, February 27, 2017 9:54 AM, Debra Robinson <42robinson@rogers.com> wrote:

What is
Raise The Flag?

Autism Ontario's Raise the Flag campaign, through the simple act of raising a flag, unites families, schools, communities, government and professionals in recognizing World Autism Awareness Day, and brings to light to struggles and triumphs of people on the autism spectrum.

Our campaign also features educational toolkits for educators from primary through to post-secondary school.

Autism Ontario is excited to have you participate and celebrate with us. Through this initiative, we are building stronger, more inclusive communities for people with Autism Spectrum Disorder (ASD). We are highlighting the work done throughout the province, and the work that still needs to be done to ensure that children, youth and adults living with ASD are provided the means to achieve quality of life. Thank you for being part of this momentous day with us!

World Autism Awareness Day falls on Sunday, April 2 in 2017, so celebrations will be held on Monday, April 3, 2017.

How do I
Get Involved?

Schools
Join us in making your school and community more inclusive place for people with autism!
Register and have access to our Educator Toolkits which include activities and educational videos.

You can share your school's stories of inclusion and acceptance.

Click here for a poster to share with your school

Parents, Self-advocates and Supporters
As we come together to celebrate World Autism Awareness Day, we invite you to participate in our campaign.

There are many ways Ontarians can get involved and support the campaign:

Attend a flag raising ceremony
Fundraise in support of Autism Ontario
Access and share our dynamic educational and awareness resources
Share a story of acceptance, inclusion or insight

Debra Robinson
Parent Volunteer Autism Ontario-Peel Chapter
Past President

---

BEN RYZEBOL, Director of Public Works
PUBLIC WORKS - TELEPHONE: (519) 941-1065
FAX: (519) 941-1802
email: bryzebol@amaranth.ca

SUSAN M. STONE, C.A.O./Clerk-Treasurer
TELEPHONE: (519) 941-1007
FAX: (519) 941-1802
email: suestone@amaranth-eastgary.ca

TOWNSHIP OF AMARANTH

374028 6TH LINE, AMARANTH, ONTARIO
L9W 0M6

February 27, 2017

Hon. Kathleen Wynne, Premier
Legislative Building, Queen's Park
Toronto, ON M7A 1A1

Dear Premier Wynne:

**Re: Provincial Gas Tax Funds**

At the regular meeting of Council held February 15, 2017, the following resolution was set forth.

**Moved by C. Gerrits – Seconded by H. Foster**

Whereas rural and farm communities do not have transit systems but have roads and bridges and transportation infrastructure; and whereas farm communities require access to safe roads; and whereas climate change and increased severity of weather events impact infrastructure; now therefore the Council of the Township of Amaranth requests that Provincial Gas Tax be made available to all municipalities in the same manner that Federal Gas Tax is made available.

Should you require anything further please do not hesitate to contact this office.

Yours truly,

Susan M. Stone

Susan M. Stone, A.M.C.T.
CAO/Clerk-Treasurer
Township of Amaranth

SMS/kp

cc: Sylvia Jones, MPP Dufferin-Caledon
Dufferin County Municipalities

INFO 12
MAR 16 2017

MUNICIPAL PROPERTY ASSESSMENT CORPORATION

March 9, 2017

To: Mayors and Members of Council,
Chief Administrative Officers, Finance Officers,
Clerks, Treasurers and Tax Collectors

From: Carla Y. Nell
Vice President, Municipal & Stakeholder Relations

**Subject: 2017 Municipal Stakeholder Research**

Following the delivery of the 2016 Assessment Update last year, the Municipal Property Assessment Corporation (MPAC) is looking forward to building its next four-year strategy and the delivery of the next province-wide Assessment Update in 2020.

An important focus for us this year is seeking and collecting input from our key stakeholders. As a result, MPAC will be conducting a survey to measure both elected and non-elected officials' views of MPAC's performance as it relates to your municipality. We understand that each municipality has unique attributes and needs. We want to understand how we can better collaborate with you and serve staff in your municipality.

Over the coming weeks, you may receive a call or email from Ipsos requesting your participation in a telephone interview or online survey. Please note that all of the information you provide in the survey will be kept strictly confidential by Ipsos, and your responses will be reported in aggregate only.

Some of you may recall that MPAC wrote to you in 2015 about the importance of hearing from you directly and asked you to participate in the benchmark survey. This survey will serve to follow up on that work. I would like to thank you in advance for taking the time to provide your feedback. If you do not receive a call or email from Ipsos within the next few weeks but wish to participate in the 2017 study, please contact your local Municipal & Stakeholder Relations Account Manager by no later than March 31.

We look forward to continuing to partner with you to serve Ontario's municipalities in the future.

Yours truly,

Carla Y. Nell
Vice-President, Municipal and Stakeholder Relations

**Copy** Regional and Account Managers

1340 Pickering Parkway, Suite 101, Pickering, ON L1V 0C4
www.mpac.ca

INFO13
MAR 16 2017

**Agriculture, Food and Rural Affairs Appeal Tribunal**
1 Stone Road West
Guelph, Ontario N1G 4Y2
Tel: (519) 826-3433, Fax: (519) 826-4232
Email: AFRAAT@ontario.ca

**Tribunal d'appel de l'agriculture, de l'alimentation et des affaires rurales**
1 Stone Road West
Guelph (Ontario) N1G 4Y2
Tél.: (519) 826-3433, Téléc.: (519) 826-4232
Courriel: AFRAAT@ontario.ca

Ontario



March 3, 2017

Evan Bearss
643132 270 Sideroad
Melancthon, Ontario
K9V 2M6

Dear Mr. Bearss

**Re: Late Filing of Section 65(11) Appeal – McCue Drain Works, Repair and Improvement, 1989**

I have reviewed the material provided from yourself and the municipality with respect to your request for an extension of time to file an appeal.

As the municipality has no objection to the extension and the fact that there was ongoing attempts to resolve your issues that were not successful, I am willing to grant your request.

If you have any questions about the above, please contact Tribunal Coordinator, Tracey Henderson directly at (519) 826-3431.

Sincerely,

Kirk Walstedt,
Chair

cc. Denise Holmes, CAO/Clerk, Township of Melancthon

**Ministry of Agriculture, Food and Rural Affairs**

Office of the Minister

77 Grenville Street, 11th Floor
Toronto, Ontario M7A 1B3
Tel: 416-326-3074
Fax: 416-326-3083

**Ministère de l'Agriculture, de l'Alimentation et des Affaires rurales**

Bureau du ministre

77, rue Grenville, 11e étage
Toronto (Ontario) M7A 1B3
Tél. : 416 326-3074
Téléc. : 416 326-3083

Ontario

February 27, 2017

Dear Mayor/Reeve/Warden:

Applications for the 2017 Premier's Award for Agri-Food Innovation Excellence program are now being accepted. I ask that you please share this information in your municipality.

The Premier's Award for Agri-Food Innovation Excellence program was created to recognize and foster the spirit of innovation that thrives in Ontario's $36.4-billion agri-food sector. Each year, our agri-food sector demonstrates leadership in innovation by developing new and exciting products, production methods and ways of doing business that help drive growth and create jobs in our province.

Every year the program recognizes up to 50 award-winning innovations across the province, including the Premier's Award which is valued at $75,000.

Primary producers, processors and agri-food organizations are invited to submit applications until **11:59 p.m. on April 28, 2017**.

Details on eligibility, innovation categories, assessment criteria, the application and selection processes can be found in the enclosed 2017 Program Guidebook and Application Form or online (www.ontario.ca/agrifoodinnovation). For additional information, please contact the Agricultural Information Contact Centre at 1-877-424-1300 or ag.info.omafra@ontario.ca .

I have also enclosed a copy of a brochure that highlights the recipients of the 2016 program for the Premier's Award for Agri-Food Innovation Excellence.

I look forward to celebrating the great innovations developed in your municipality to grow our agri-food sector and Ontario's economy.

Sincerely,

Jeff Leal
Minister of Agriculture, Food and Rural Affairs

Enclosure

Foodland Ontario

Good Things Grow in Ontario
À bonne terre, bons produits

**Minister of Seniors Affairs**

6th Floor
400 University Avenue
Toronto ON M7A 2R9
Tel.: (416) 314-9710
Fax: (416) 325-4787

**Ministre des Affaires des personnes âgées**

6e étage
400, avenue University
Toronto ON M7A 2R9
Tél.: (416) 314-9710
Téléc.: (416) 325-4787

Ontario

March 2017

Dear Mayor, Reeve and Members of Council:

I am pleased to invite you to participate in the **2017 Senior of the Year Award**. This annual award was established in 1994 to give each municipality in Ontario the opportunity to **honour one outstanding local senior,** who after the age of 65 has enriched the social, cultural or civic life of his or her community.

Pay tribute to a Senior of the Year award recipient and show how seniors are making a difference in your community!

Make a nomination for **Senior of the Year**!

**Deadline is April 30, 2017.**

A certificate, provided by the Ontario government, is signed by Her Honour the Honourable Elizabeth Dowdeswell, Lieutenant Governor, myself as Minister of Seniors Affairs, and the local Head of Council.

The Government of Ontario is proud to offer this partnership with the municipalities. Seniors have generously offered their time, knowledge, expertise and more to make this province a great place to live. It is important to recognize their valuable contributions.

If you have questions, please contact the Ontario Honours and Awards Secretariat:

Email: ontariohonoursandawards@ontario.ca
Phone: 416 314-7526
Toll-free: 1 877-832-8622
TTY: 416 327-2391

Thank you in advance for taking the time to consider putting forward the name of a special senior in your community.

Sincerely,

The Honourable Dipika Damerla
Minister

INFO 16
MAR 16 2017

## Denise Holmes

**From:** Sylvia Muir <Sylvia.Muir@wdgpublichealth.ca>
**Sent:** Wednesday, March 01, 2017 2:14 PM
**Cc:** 'agoldie@centrewellington.ca'; 'derek.mccaughan@erin.ca'; 'bwhite@town.minto.on.ca'; 'iroger@get.on.ca'; 'bmcroberts@mapleton.ca'; 'klandry@puslinch.ca'; 'mgivens@wellington-north.com'; 'ebrennan@orangeville.ca'; 'jtefler@shelburne.ca'; 'Clerksoffice@townofmono.com'; 'sstone@amaranth-eastgary.ca'; 'jwilson@townofgrandvalley.ca'; 'thorner@mulmur.ca'; 'dholmes@melancthontownship.ca'
**Subject:** WDGPH Letter to CAO re Restricting Hookah Establishments in WDG
**Attachments:** WDGPH Letter to WDG CAOs re Restricting Hookah Establishments - March 1, 2017.pdf

Good afternoon.

Please see attached letter that was sent to the CAOs for the County of Wellington, County of Dufferin and City of Guelph, with respect to the above-noted matter, for your consideration.

Have a wonderful afternoon.

Regards,

Sylvia Muir
Executive Assistant
Wellington-Dufferin-Guelph Public Health
160 Chancellors Way, Guelph, ON N1G 0E1
T: 519-822-2715 or 1-800-265-7293 Ext. 4330
F: 519-836-7215
sylvia.muir@wdgpublichealth.ca
www.wdgpublichealth.ca





INFO17
MAR 16 2017

PublicHealth
WELLINGTON-DUFFERIN-GUELPH
Stay Well.

March 1, 2017

DELIVERED VIA E-MAIL

Scott Wilson
Chief Administrative Officer
County of Wellington
74 Woolwich Street
Guelph, ON N1H 3T9

Sonya Pritchard
Chief Administrative Officer
County of Dufferin
55 Zina Street
Orangeville, ON L9W 1E5

Derrick Thomson
Chief Administrative Officer
Guelph City Hall/City of Guelph
1 Carden Street
Guelph, ON N1H 3A1

Dear Mr. Wilson, Ms. Pritchard + Mr. Thomson:

**Re: Regulation & Restriction of Local Hookah Establishments**

Wellington-Dufferin-Guelph Public Health (WDGPH) is reaching out to your municipality to regulate and restrict hookah establishments from setting up in your area. Now is the time to take action out of concern for the health and safety of your constituents. Twenty municipalities in Ontario have already done so including; Ottawa, Toronto and Peterborough.

A hookah or a waterpipe is used to smoke flavoured tobacco as well as non-tobacco herbal shisha. A recent review on the toxicity, physical properties and disease risks of hookah waterpipe smoke, found that smoking "herbal" shisha likely presents the same disease risks as tobacco shisha.

.../2

160 Chancellors Way, Guelph, ON N1G 0E1
Telephone: 519-822-2715 | Fax: 519-836-7215 | www.wdgpublichealth.ca

PublicHealth
WELLINGTON-DUFFERIN-GUELPH
*Stay Well.*

- All tobacco and herbal waterpipe smoke contains toxicants, including carbon monoxide, 'tar', polycyclic hydrocarbons, and volatile aldehydes;
- Toxicants measured in herbal smoke equal or exceed those found in tobacco waterpipe smoke;
- Waterpipe smokers inhale and absorb the same toxicants that are known to cause cancer, heart and lung disease, and dependence in cigarette smokers.

Currently, non-tobacco or herbal shisha hookah smoking is not regulated under the *Smoke-Free Ontario Act* (*SFOA*). The *SFOA* specifically prohibits "smoking or holding of lighted tobacco" in any enclosed public place or enclosed workplace. Many hookah proprietors claim that their shisha is "herbal" and is heated, not lit, so the *SFOA* does not apply to them.

I hope that you will consider taking this important step to protect the health of residents before hookah establishments become established in your municipality. WDGPH can provide research and examples of policies from other jurisdictions.

If you should have any questions or for further information, please contact Laura Campbell, Health Promotion Specialist, at 1-800-265-7293 ext. 4208.

Sincerely,

Dr. Nicola Mercer, MD, MBA, MPH, FRCPC
Medical Officer of Health and CEO

Andy Goldie, CAO, Township of Centre Wellington – via e-mail
Derek McCaughan, Interim CAO, Town Erin – via e-mail
Bill White, CAO, Town of Minto – via e-mail
Ian Roger, CAO, Guelph-Eramosa – via e-mail
Brad McRoberts, CAO, Mapleton – via e-mail
Karen Landry – CAO, Township of Puslinch - via e-mail
Michael Givens, CAO, Wellington North – via e-mail
Ed Brennan, CAO, Town of Orangeville – via e-mail
John Tefler, CAO, Town of Sheburne – via e-mail
Mark Early, CAO, Town of Mono – via e-mail
Susan Stone, CAO, Township of Amaranth/East Garafraxa – via e-mail
Jane Wilson, CAO, Township of East Luther/Grand Valley – via e-mail
Terry Horner, CAO, Township of Mulmur – via e-mail
Denise Holmes, CAO, Township of Melancthon – via e-mail

# NVCA Board Meeting Highlights, February 24, 2017

Next Board Meeting: March 24, 2017
at Suite Works, 92 Caplan Ave., Barrie

*For the full meeting agenda including documents and reports, visit nvca.on.ca/about/boardofdirectors*

## NVCA's Planning Services sees 25% increase in applications in 2016

The board received a report on NVCA's planning services activities in 2016.

Last year, planning services, which is composed of six staff members, reviewed and commented on 1,498 applications under the *Conservation Authority Act, Planning Act* and other regulations, up from 1,200 in 2015. Between 2013 and 2016, applications increased from 904 to 1,498 with staffing levels remaining unchanged.

The board also received the first report on cost/time tracking data for NVCA planning services, as was requested the recent planning fee review process.

## Record-setting planting year coming for NVCA forestry program

The NVCA board approved the purchase of tree seedlings required to meet the needs of the 2017 tree planting program. More than 227,000 trees will be planted by the authority in 2017, making it the largest planting season on record for the authority. Funding for this program comes from partners like Forests Ontario and from participating landowners; municipal levy is not used to purchase tree seedlings.

NVCA continues to set a high standard for tree planting. At the meeting, the board commended Rick Grillmayer, Manager of Forestry, who was awarded MVP (Most Valuable Planter) at Forests Ontario's annual conference in February.

Doug Lougheed, NVCA Chair (left), congratulates Rick Grillmayer, Forests Ontario's Most Valuable Planter. They are joined by Byron Wesson, NVCA Director of Lands, Education and Stewardship Services; Gail Ardiel, NVCA Vice Chair; and Keith White, NVCA Second Vice Chair

The MVP award recognized Rick for his outstanding contributions to restoring the health of our natural ecosystems through tree planting. Under Rick's guidance, NVCA planted 218,000 trees in 2016, one of the largest number planted by any conservation authority.

## Good marks for NVCA's Customer Service

The board received a presentation from CAO Gayle Wood on the *2016 Customer Satisfaction Report*. This report summarizes comments received on NVCA programs, including planning, stewardship and environmental education. Overall, feedback was very positive across all programs, with knowledge, courtesy and other aspects of customer service being rated excellent or good by 100% of respondents. The report is available online at nvca.on.ca/about/CustomerService

8195 8th Line, Utopia, ON, L0M 1T0 • 705-424-1479 • admin@nvca.on.ca
www.nvca.on.ca

## In brief

During the meeting the board also:

- authorized the Friends of Minesing Wetlands to host a BioBlitz event in the Minesing Wetlands Conservation Area on June 3, 2017. The BioBlitz will see volunteers take an inventory of as many species as possible under the guidance of experienced leaders. Guided walks, canoe trips, workshops and other educations activities are among the activities being planned for the event.
- renewed the Friends of Utopia Gristmill and Park lease of Utopia Conservation Area for a five-year period.
- approved the contribution of $5,000 as matching funds towards a Canada 150 Community Infrastructure grant of $17,500 for improvements to the Fort Willow Conservation Area. Other matching funds are being contributed in-kind by NVCA partners and member municipalities.
- approved the monthly board education presentations and the senior staff municipal action plan for 2017.

## Call for Nominations – 2017 Conservation Champion Awards

The nomination period for the 2017 NVCA Conservation Champion Awards is now open!

The Conservation Champion Awards are given out annually to recognize people, organizations, business and municipalities for their outstanding contributions to sustainability and stewardship in our watershed. There is a special category for young conservationists.

Nomination forms are available at nvca.on.ca/about/conservation-champions.

Nominations close March 27.

## Future Meetings & Events

**NVCA @ the Central Ontario Agriculture Conference**
Friday, March 3 and Saturday, March 4, 4:00 pm - 5:00 pm
Georgian College

**March Break Monday Children's Program**
Monday, March 13, 10:00 am - 3:00 pm
Tiffin Conservation Area, Utopia

**Nature Days for Homeschoolers – "Get back to the Sugar Shack!"**
Friday, March 17, 10:00 am - 3:00 pm
Tiffin Centre for Conservation, Utopia

**NVCA Board of Directors Meeting**
Friday, March 24, 9:00 am - 12:00 pm
Suite Works, 92 Caplan Ave., Suite 309, Barrie

**Spring Tonic Maple Syrup Festival**
Saturday, April 8 and Sunday, April 9, 9:00 am - 3:00 pm
Tiffin Centre for Conservation, Utopia

**NVCA Evening of Thanks & Conservation Champion Recognition**
Thursday, April 27, 4:30 pm - 6:00 pm
Tiffin Centre for Conservation, Utopia

**NVCA Annual Tree Sale (Utopia)**
Saturday, May 13, 8:00 am - 12:00 pm
Tiffin Centre for Conservation, Utopia

For more information on these events, please visit the NVCA website.

# GRCA Current

March, 2017 • Volume 22 Number 3



## $31 million 2017 budget

The GRCA will spend about $31 million this year on programs that protect water quality, reduce flood damages, protect natural areas, support responsible development and provide outdoor recreation and environmental education.

The budget was approved by the GRCA board at the AGM on February 24. The board is made up of 26 members appointed by the municipalities in the Grand River watershed.

Municipalities will contribute $11 million in general municipal levy to the GRCA this year, about 36 per cent of the total budget. The municipal levy works out to about $10.60 per resident. When compared to last year, this is a 2.5 per cent increase, or 11 cents per resident.

Government grants totalling about $4 million represent about 13 per cent of the budget. This includes $800,000 from municipalities towards the Rural Water Quality program. The remainder is primarily provincial grants, which include funding of over $800,000 for the Source Protection Program.

The GRCA also receives about $300,000 from the federal government. Approximately $220,000 of this funding this year is in support of Canada 150 projects.

The GRCA generates $14.6 million, or about 47 per cent, of its own revenue through sources such as camping fees, park admissions, nature centre programs, hydro sales, property rentals, tree sales, planning permits and donations raised by the Grand River Conservation Foundation.

## Park Hill Dam hydro plant EA and design contract

The GRCA is hiring WSP Consultants for $360,000 to carry out an Environmental Assessment and to design the proposed Park Hill Dam hydro generating station in Cambridge.

In September 2016, the GRCA board authorized staff to enter into an agreement with the Independent Electricity System Operator (IESO) under the Feed-in-Tariff Program for the sale of electricity from the proposed new hydro generating station. The IESO agreement was finalized and a request for engineering proposals was issued late in 2016.

The EA and the design are the first stage of this project and this is anticipated to take 12 to18 months to complete.

The full project will take about five years and the new plant is expected to be commissioned early in 2021.

## Moderate risk of flooding this spring

The overall flood risk in the Grand River watershed this spring is moderate, with the highest potential for flooding from heavy rain on saturated or frozen ground and along the Lake Erie shoreline.

The forecast was presented at the GRCA's annual meeting of municipal flood co-ordinators on February 22. The meeting is one of a series held each year, as the GRCA works closely with municipal officials to operate, test and improve the flood warning system.

The GRCA monitors weather and river conditions and issues warnings to municipal flood co-ordinators. When a flood message is issued, municipalities implement their local flood response program by warning residents, closing roads, managing evacuations and taking other actions.

This fall was very dry, but higher than normal precipitation returned in December. It has continued over the past three months. Along with higher precipitation, temperatures have fluctuated, resulting in cycles of melt and freeze accompanied by cycles of rain and snow.

The major reservoirs are at their normal levels for this time of year and Lake Erie is well above the long-term average level for this time of year. This is slightly above the levels they were at this time last year. Lake Erie is virtually free of ice, including the mouth of the Grand River.

## Visit from Minister Kathryn McGarry

Kathryn McGarry, Cambridge MPP and Minister of Natural Resources and Forestry, spoke briefly at the GRCA's annual general meeting February 24.

McGarry is leading the review of the Conservation Authorities Act, which governs Ontario's 36 conservation authorities. Public consultation on the review of the act was completed last September and McGarry thanked the GRCA for comments that were submitted.

The proposed new legislation is being finalized and she expects to introduce it in the legislature in the near future. She said the revised act could be passed into law in the fall of 2017.

## Drayton flood meeting

Residents of Drayton and Mapleton can learn more about flooding at a public open house being hosted by the GRCA and the Township of Mapleton March 23.

Flooding along the Conestogo River occurs in Drayton and some other areas within Mapleton Township. This open house will explain the flood warning system, how to reduce the risks to your property and what to do after a flood. It will include displays on flooding, new maps showing flood warning levels in Drayton and other information.

The open house takes place at the PMD arena, 68 Main Street West, Drayton from 4:30 p.m. to 7 p.m. and representatives of several organizations will be on hand to answer questions.

## Roads closed at end of February

Highway 25 through Grand Valley and the low level bridge upstream of St. Jacobs at 1505 Three Bridge Road were both closed during the last weekend in February.

Flood messages about the closures were issued on February 23 and 24. Warm weather and heavy rains of 25 mm brought the last snowpack off the northern part of the watershed.

The weather outlook for March and April is warmer than normal.

Sheri Lovell of Rockwood received the top prize in the GRCA photo contest in the nature category for this photo of the Eramosa River as it flows through Rockwood Park. She lives in Rockwood and zipped over when she saw this dramatic sky as a storm approached.

## Watershed heroes

Do you know a watershed hero?

Nominations for 2017 Watershed Award recipients can come from anyone in the watershed and must be made by May 1.

These awards go to individuals, families, groups and businesses that put their time and energy into improving the Grand River watershed. The GRCA has presented these awards each year since 1976.

More information on the program, including short biographies of past winners and a nomination form, can be found on www.grandriver.ca/awards.

Winners will be honored at a special event in the fall.

## Tree planting services

The GRCA is hiring two contractors to plant more than 100,000 trees this year.

Some tree planting is contracted out by the GRCA in blocks based on the planting method and tree size. This allows many people to work at the same time to plant trees quickly, because bare root planting season is not long and starts as soon as the frost leaves the ground.

The Black River Tree Planting contract is valued at nearly $40,000 and the Quiet Nature Ltd. contract is valued at $65,000.

Planting on private land is paid for by property owners, but their costs are often offset by funding that comes from a variety of programs, including the Rural Water Quality Program, Forests Ontario and the Habitat Stewardship Program. Plantings on GRCA property are funded through external programs and donations.

About 30 million trees have been planted by the GRCA and its partners since the beginning of the planting program.

This issue of *GRCA Current* was published in March, 2017.

It is a summary of the February, 2017 business conducted by the Grand River Conservation Authority board and committees, as well as other noteworthy happenings and topics of interest.

The Grand River Conservation Authority welcomes distribution, photocopying and forwarding of *GRCA Current*.

**Next board meeting:**
March 24 at 9:30 a.m.,
GRCA Administration Centre

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https://calendar.grandriver.ca/directors

**View coming events:**
www.grandriver.ca/events

| Development Charges Yearly Breakdown | | | | | | |
|---|---|---|---|---|---|---|
| Category | % | Balance | Deposits | Transfer | Transfer | Balance |
| | | Dec.31/15 | | by Budget | by Resolution | Dec.31/16 |
| Administration | 11.76% | $23,597.50 | $5,949.36 | | | $29,546.86 |
| Fire Services | 4.47% | $49,911.37 | $2,261.24 | | | $52,172.61 |
| Transportation | 58.20% | $235,994.92 | $29,448.94 | | | $265,443.86 |
| Recreation | 22.69% | $107,773.15 | $11,482.45 | | | $119,255.60 |
| Library | 2.72% | $6,055.76 | $1,375.27 | | | $7,431.03 |
| Police | 0.16% | $26,584.08 | $81.85 | | $11,871.46 | $14,794.47 |
| HST Rebate | | | | | $1,311.27 | $1,311.27 |
| Total | | $449,916.78 | | | | $487,333.16 |
| | | | | | | |
| | | | | | | |
| Book Balance Dec. 31/15 | | $449,916.78 | | | | |
| + deposits | | $50,599.11 | | | | |
| - transfers | | $13,182.73 | | | | |
| Book Balance Dec. 31/16 | | $487,333.16 | | | | |
| | | | | | | |
| Bank Balance Dec. 31/16 | | $487,333.16 | | | | |
| | | | | | | |
| Difference | | $0.00 | | | | |

INFO 20
MAR 16 2017

# SEMI-ANNUAL GROUNDWATER MONITORING AND SAMPLING REPORT 2016

**Township of Melancthon Landfill Site**
**Lot 12, Concession 4**
**Melancthon Township, Ontario**

**Project No. BG-565**

**Prepared for:**

**The Corporation of the Township of Melancthon**
**R.R. #6**
**Shelburne, ON.**
**L0N 1S9**
**ATTN: DENISE HOLMES, AMCT, CLERK-TREASURER**

**FEBRUARY 2017**

# BLUEWATER GEOSCIENCE
## CONSULTANTS INC.

42 Shadyridge Place
Kitchener, Ontario
N2N 3J1

Tel: (519) 744-4123
Fax: (519) 744-1863
E-mail: blemieux@rogers.com


February 24, 2017

The Corporation of the Township of Melancthon
R.R. #6,
Shelburne, Ontario L0N 1S9
Attn: Ms. Denise Holmes, AMCT, Clerk-Treasurer

Dear Ms. Holmes:

**Re: 2016 Semi-Annual Groundwater Monitoring and Sampling Report,**
**Township of Melancthon Landfill Site, Lot 12, Concession 4**
**Melancthon Township, Ontario**

Bluewater Geoscience Consultants Inc. (Bluewater) was retained by The Corporation of the Township of Melancthon to complete the 2016 Semi-Annual Groundwater Monitoring and Sampling Report for the Melancthon Township landfill property located on Lot 12, Concession 4 in Melancthon Township, Ontario. The Township operates a municipal landfill site at the property and requires the Groundwater Monitoring and Sampling Program for their MOE Certificate of Authorization (C of A) for the operation.

The scope of work, observations, analytical test results, and our conclusions and recommendations for the 2016 Semi-Annual Groundwater Monitoring and Sampling Report are presented in the following report.

We trust that this report is complete within our terms of reference and suitable for your present requirements. If you have any questions or require further information, please do not hesitate to contact our office.

Sincerely,
**BLUEWATER GEOSCIENCE CONSULTANTS INC.**

Breton J. Lemieux, M.Sc., P.Geo. $QP_{ESA}$
President, Senior Geoscientist

## TABLE OF CONTENTS

# 1.0 INTRODUCTION

The Corporation of The Township of Melancthon (Township) retained Bluewater Geoscience Consultants Inc. (Bluewater) to complete the 2016 landfill (LF) groundwater monitoring and sampling program and to generate the annual report detailing the findings. The landfill site monitoring was undertaken to continue to assess any environmental impacts to surface and groundwater created by the LF operations. This landfill monitoring report was completed in accordance with the requirements of the Ministry of the Environment's Certificate of Approval for the LF site.

The site monitoring included completing two site inspections, measuring groundwater levels in all 35 observation wells during the Spring and Fall of the year and determination of the resulting groundwater flow patterns in and around the LF. Groundwater sampling was conducted on 31 selected sampling wells during both the Spring and Fall of each year. The groundwater samples for 2016 were submitted to a CAEL-accredited analytical laboratory for analysis. The results of the completed laboratory analyses were compared to MOE's Ontario Drinking Water Standards (ODWS) (for on-site monitors) and the Reasonable Use Policy (RUP) for off-site monitors.

# 2.0 PREVIOUS INVESTIGATIONS

## 2.1 R.J. Burnside & Associates Limited – Annual Groundwater Monitoring Reports 1993-2000

Annual groundwater monitoring reports for the LF were completed by R.J. Burnside & Associates Limited (Burnside) from 1993 – 2000. These reports included the sampling and analysis of groundwater samples from seventeen existing monitoring wells located in and around the LF site. Eleven of the monitors are located in the overburden aquifer while six are installed within the underlying bedrock aquifer. A summary of these reports indicates that no exceedance of the MOE RUP had been determined during the groundwater sampling events. In general, on-site monitoring locations indicated that exceedance of the MOE's ODWS for on-site monitors were rare and not sustained.

## 2.2 Rubicon Environmental Inc. – Groundwater Monitoring and Hydrogeological Investigations – Spring 2001

During 2001 Rubicon added another fourteen groundwater monitors to the existing network of monitors in and around the LF site. Eight of these monitors were installed in the overburden aquifer while six were installed in the bedrock aquifer.

During the 2001 investigations, the existing monitoring wells installed by Burnside were sampled and analysed. The additional monitoring wells were tied into the site survey, but not sampled.

### 2.3 Rubicon Environmental Inc. – Groundwater Monitoring and Hydrogeological Investigations – Spring 2002

This report included results of the Spring and Fall 2002 site monitoring and groundwater sampling and analysis program. The monitoring and sampling included the new monitors added during 2001.

### 2.4 Rubicon Environmental Inc. – Landfill Monitoring – March 24, 2004

This report provides details of the 2003 LF groundwater monitoring and sampling program completed at the site. The report details that some minor exceedances of the ODWS were determined for on-site monitoring wells.

### 2.5 Bluewater Geoscience Consultants Inc. – Annual Groundwater Monitoring and Sampling Reports 2004 - 2015

These reports detail the 2004 - 2015 LF groundwater monitoring and sampling program completed at the site. The report details that some minor exceedances of the ODWS were determined for on-site and off-site monitoring wells.

## 3.0 SITE BACKGROUND

The LF site has been in operation since ~1973 at its current location at Lot 12, Concession 4, Township of Melancthon, County of Dufferin. The LF serves the population of ~2,400 people in the Township. The nearest residence is located ~450 m south of the LF site. The location of the LF is remote and distant from any significant population centres.

The LF presently operates under Provisional Certificate of Approval (C of A) A180703. The total LF property comprises an area of ~33.038 ha., of which 6.1 ha. has been approved for landfilling. In 2013, waste placement was proceeding aboveground in the northwestern portion of the approved filling area. This fill area has been in use since late 2003 and is immediately adjacent to the west of the former fill area (Figure 1, Appendix A). During 2013 the County of Dufferin assumed waste collection and disposal services in the Township of Melancthon. Further waste disposal at this landfill is not anticipated should County of Dufferin services be found adequate.

### 3.1 Site Inspection

During both Spring and Fall monitoring events, a site inspection was completed. The main refuse disposal area has been covered with soil and grades have been established to reduce the amount of rainwater infiltration into the waste pod. Temporary fencing has been placed around portions of the fill area to control windblown waste. There was no waste placement at this landfill during 2016.

During the Spring 2006 inspection it was noted that OW-4S had been destroyed, likely by equipment working in the area. OW-4S is located within the current filling are. During the Fall inspection it was

noted that OW-4D had been destroyed during the summer months. OW-4D was also located within the current filling area.

## 4.0 GROUNDWATER MONITORING WELLS AND METHODOLOGY

### 4.1 Existing Monitoring Wells in 2016

Thirty-five groundwater-monitoring wells were in existence at the commencement of the 2016 monitoring period. All wells were inspected and found to be in good order, with the exceptions noted just above. During the Spring 2015 site inspection it was found that OW-17, located along the east side of the 4th Concession had been damaged during the winter and could not be located. This well was not sampled during 2016. OW-17 does not constitute a delineation well and is therefore not considered critical at this time. Should conditions dictate in the future, OW-17 may need to be replaced.

Seventeen monitoring wells had been installed by Burnside pre-2001. Six of these were installed in the deeper bedrock aquifer (denoted "D" for deep) while eleven were installed in the shallow overburden aquifer (denoted "S" for shallow). All existing monitoring wells were constructed of 50 mm diameter Schedule 40 PVC pipe and are fitted with steel protective casings and locks. The locations of all monitoring wells are presented on the Base Site Plan (Figure 1B, Appendix A). A brief description of each monitor locations is provided below:

- OW 1 is installed in the overburden aquifer and is located between two former refuse disposal areas
- OW 2S and OW 2D are located downgradient (east) of the current refuse disposal area
- OW 3S and OW 3D are located immediately downgradient (east) of the current refuse disposal area
- OW 4S and OW 4D are no longer present
- OW 5S is installed in the overburden aquifer and is located north of the disposal area, near the northern property boundary. This monitor is frequently dry in Fall
- OW 6S and OW 6D are located near the south property boundary and had been intended to represent background water quality
- OW 7S and OW 7D are located near the northeast property corner, northeast of the former refuse disposal area
- OW 8 is installed in the overburden aquifer and is located in the main refuse area. OW 8 is considered a 'leachate' well
- OW 9S and OW 9D are located off-site, northeast of the landfill and in the east ditch of the 4th Line
- OW 10S and OW 10D are located east of the main refuse disposal area
- OW 11S and OW 11D are located northwest of the main refuse disposal area. These monitors were intended to provide further clarification of groundwater flow patterns and are not included in the sampling program
- OW 12S and OW 12D are located west of the main refuse disposal area. These monitors were intended to provide further clarification of groundwater flow patterns and have been

included since the 2006 sampling program;

- OW 13S and OW 13D are located immediately south of the main refuse disposal area. These wells were located to provide better delineation of the groundwater mounding in the refuse area and provide chemical data south of the refuse area;
- OW 14S is located southeast of the main refuse disposal area and was intended to help clarify groundwater flow patterns distant from the refuse disposal area;
- OW 15S and OW 15D are located southeast of the main refuse disposal area and were intended to help clarify groundwater flow patterns distant from the main refuse disposal area. These monitors were sampled for the first time during 2006;
- OW 16S and OW 16D are located along the north property boundary. These monitors were intended to provide clarification of groundwater flow patterns and provide chemical analysis of groundwater at the north property boundary. These monitors were sampled for the first time during the 2006 program;
- OW 17S is located off-site in the overburden aquifer. The monitor is located in the east ditch of the 4$^{th}$ Line. This monitor was intended to provide better information on shallow groundwater flow patterns and potentially provide chemical data regarding the contribution of road salt to noted groundwater impacts. This monitor was destroyed in 2015 and has not been replaced;
- OW 18S and OW 18D are located off-site east of the 4$^{th}$ Line. These monitors were intended to help refine groundwater flow patterns in the overburden and bedrock aquifers and provide chemical data in that area.

### 4.2 Wells Installed in 2006

During 2006 an additional six monitoring wells were installed at the landfill. The six new wells consisted of three sets of two wells (OW-19S and 19I, OW20S and 20D and OW-21S and 21D). The locations of the new wells are shown on Figure 1B, Appendix A. A description of the location and rationale for each of the new wells is presented below:

- OW-19S and OW-19I are located in the southeast corner of the landfill property, just west of the 4$^{th}$ Line. These wells were installed to provide additional points for determining groundwater flow patterns and to provide chemical data at this downgradient property boundary. OW-19S is set in the shallow till overburden while OW-19I (intermediate) is set in a lower till unit. These two wells were included in the 2007 sampling and lab analysis program for the first time;

- OW-20S and OW-20D are located just southeast of the ‘old closed landfill’ in the northeast portion of the landfill property. These wells will provide further groundwater flow data as well as providing additional chemical data. OW-20S is set in the shallow overburden, just above the bedrock. OW-20D is sealed into the bedrock. These two wells were included in the 2007 sampling and lab analysis program for the first time;

- OW-21S and OW-21D are located along the north landfill property boundary, well west of the active landfilling area. These wells will be utilized to provide additional groundwater flow information as well as providing chemical data at locations well upgradient of the fill

area. OW-21S is set in the shallow overburden, just above the bedrock. OW-21D is sealed into the dolostone bedrock. These two wells were included in the 2007 sampling and lab analysis program for the first time;

All groundwater-monitoring wells have been surveyed relative to a geodetic datum and ground surface and top of monitoring well pipe elevations have been recorded. During 2006, waste placement was taking place in the immediate area of OW-4S and OW-4D. These wells were destroyed by the heavy equipment. OW-17 was destroyed during the winter of 2014-2015 and is no longer part of the monitoring network.

### 4.3 Water Level Monitoring

On May 3 and October 19, 2016 groundwater levels were measured in all 36 existing monitoring wells installed at the LF. The depth to water relative to the top of monitoring well pipe was measured using a Solinst water level gauge. The determined water depths were recorded and the resulting groundwater elevations were determined. Table 1, Appendix B provides the tabular representation of the groundwater elevation data, including historic groundwater levels.

After completion of the water level measurements, the monitors selected for sampling were thoroughly purged of a minimum of 3 casing volumes of water in anticipation of the groundwater sampling.

### 4.4 Groundwater Sampling

The 2016 groundwater sampling and analysis program consisted of sampling up to 31 selected groundwater monitoring locations at and around the LF property. Samples were obtained from both overburden and bedrock aquifer wells. Prior to obtaining the groundwater samples, the selected monitors had been purged of a minimum of three casing volumes of water in order to facilitate provision of representative samples.

Groundwater samples from the selected monitoring wells were obtained using dedicated Waterra tubes and foot valves and were placed directly into the laboratory-supplied sample bottles. The groundwater samples were obtained and submitted for analysis of the volatile organic compounds (VOC's), general water chemistry and heavy metals parameters. The heavy metal samples were field filtered and preserved. The groundwater samples were chilled in coolers prior to being submitted under Chain of Custody to ALS Laboratories of Waterloo, ON for analysis. ALS is a CAEL (Canadian Association of Environmental Laboratories) accredited laboratory.

### 4.5 Surface Water Sampling

No surface water sampling was completed during 2016 as the designated surface water sampling location SW-3 (Figure 1) was found to be dry during both the Spring and Fall monitoring events. This location is a small dugout (possible former gravel extraction pit) located on the property adjacent to the north. It is our understanding that the Township has now purchased this property.

### 4.6 Groundwater Flow

The determination of groundwater flow patterns in both overburden and bedrock aquifers are essential in determining the potential for off-site impacts and contaminant distribution. In general, groundwater levels in both overburden and bedrock aquifers were lower (~1m) in the Fall than the Spring monitoring. The measured groundwater elevations for each aquifer were determined and plotted on the site plan. The resulting groundwater flow patterns were determined based on this distribution. Figures 2 and 3 present the groundwater flow patterns for the Spring monitoring while Figures 4 and 5 provide the Fall 2016 aquifer flow patterns.

As may be noted from these Figures, mounding of groundwater in both aquifers within the refuse disposal area is occurring. This phenomenon is typical of landfill sites and should be expected to continue. The mounding creates radial flow, outwards, apparently in all directions away from the refuse disposal area. The flow then comes under the influence of background flow patterns. Based on the findings of this, and previous, monitoring events, the overburden groundwater flow is towards the northeast while the bedrock groundwater flow is more-directly eastwards.

Groundwater flow is driven by the gradient of the groundwater. This produces head differences between locations creating the conditions for groundwater movement. The horizontal hydraulic gradient in the overburden aquifer has been determined to be on the order of 0.007 m/m. Based on this gradient, and the characteristics of the overburden, the lateral groundwater flow velocity may be approximately 74 m/yr. The horizontal hydraulic gradient in the bedrock aquifer is lower; approximately 0.002 m/m. Based on this gradient and the characteristics of the aquifer, velocities of approximately 0.03 m/yr are estimated.

Vertical hydraulic gradients between the overburden and bedrock aquifers create the conditions for downward migration of groundwater impacted in the refuse disposal area. Downward vertical gradients allow downward movement of water into the bedrock aquifer. Downward vertical gradients are found in the refuse disposal area allowing shallow impacted groundwater to potentially enter the bedrock aquifer. This is significant because the bedrock aquifer is utilized as a potable water source within the Township and the bedrock aquifer is less able to attenuate groundwater contaminants.

## 5.0 GROUNDWATER QUALITY

### 5.1 Groundwater

Groundwater sampling and analysis for the LF site has been undertaken since 1993. Additional wells were added to the sampling regime in 1999 and selected monitoring wells installed in 2001 were added to the sampling list during 2002. Groundwater quality data for the 2016 program are provided in the Tables in Appendix B along with chemistry data from 2008 - 2016. Copies of the detailed Certificates of Analysis for the 2016 monitoring data are provided in Appendix C.

Inorganic parameters such as chloride, sulphate, hardness and alkalinity are frequently utilized to determine the extent of landfill leachate impacts in groundwater. Hardness and alkalinity are naturally elevated at the landfill property and throughout Melancthon Township. Chloride levels in both overburden and bedrock aquifers are elevated in the refuse disposal area. In general, concentrations in the bedrock aquifer are slightly higher than in the associated overburden wells. This is a reflection of the downward gradient from the overburden to the bedrock coupled with the lower attenuation capabilities in the bedrock. None of the on-site or off-site monitors exceeded the MOE ODWS concentration for chloride during the 2016 monitoring events. None of the wells sampled during 2016 exceeded the MOE RUP for chloride (125.5 mg/L) concentration. Elevated chloride concentrations in this vicinity of the 4$^{th}$ Line, east of the LF, may be partially attributable to the application of road salt during winter. OW –18 S and D (as well as OW-9S and D) are located within the roadside ditch of the 4$^{th}$ Line and are likely to collect runoff from the road. Chloride concentration was also elevated (but below RUP) at OW-3D, located just downgradient of the current fill area.

In general, the background groundwater quality at the LF site consists of hard water with elevated hardness, alkalinity, manganese and iron content. During the 2016 monitoring, all wells sampled had determined hardness in excess of the ODWS. Alkalinity concentrations in excess of the ODWS were noted at OW's 2S, 2D, 3D, 7S, 7D, 9D, 12S and 18S. Iron concentrations in excess of the ODWS were determined at all sampled wells including upgradient locations. Manganese concentrations in excess of the ODWS were determined for OW's 2S, 2D, 3S, 3D, 6S, 6D, 7S, 7D, 9S, 9D, 10S, 10D, 13S, 13D, 15D, 16S, 16D, 17S, 18S, 18D, 19S, 20S and 20D. As this list includes all sampled location except OW-1, OW-5 and OW-8 these elevated concentrations are likely reflective of background groundwater quality in the area. The lack of significantly elevated manganese concentrations at OW-8, which is considered a leachate well and displays elevated sulphate concentrations, further suggests that elevated manganese concentrations are not landfill related.

The sulphate concentrations at OW 8 of 635 mg/L in Spring 2016 and 740 mg/L in Fall 2016 were in excess of the ODWS of 500 mg/L and RUP of 253.9 mg/L. These elevated concentrations are likely related to leachate groundwater impacts in the main refuse disposal area. During the Fall monitoring, elevated sulphate concentrations approaching the RUP value were not recorded (except at OW-8). No other on-site or off-site monitor exceeded the RUP for sulphate.

Parameter concentration trends through time for sulphate, chloride and manganese for selected off-site, property boundary and downgradient wells reviewed. Manganese concentrations trends do not suggest rising levels as would be expected if landfill related. Chloride trends do not suggest rising concentrations for these wells. In fact, several locations have shown slightly declining levels over the last few years. This is likely reflective of an effort on Township personnel's behalf to reduce salting in the area of the landfill entrance after several elevated chloride concentrations were detected in past years. As suggested at that time, those past elevated chloride concentrations appear to have been affected by these road salting activities.

The sulphate concentration trends for the selected wells show generally rising concentrations at OW-2S and OW-2D. Sulphate concentrations at the other selected wells do not indicate any discernible rising trends. Sulphate concentrations are generally higher in Fall than Spring. A site plan showing concentration distribution during Spring 2016 for shallow groundwater wells is provided in Figure 6

and for deep groundwater wells is provided in Figure 8, Appendix A. A site plan showing concentration distribution for Sulphate during Fall 2016 for shallow wells is provided on Figure 10 and for deep groundwater wells is provided on Figure 12, Appendix A.

A site plan showing chloride distribution during Spring 2016 is provided in Figure 7 for shallow groundwater wells and in Figure 9 for deep groundwater wells. A site plan showing chloride distribution during Fall 2016 is provided in Figure 11 and for shallow groundwater wells and in Figure 13 for deep groundwater wells.

Trace concentrations of VOC parameters, well below ODWS's and close to method detection limits, were determined for the 2016 monitoring at OW's 2D, 3D, 7D and 18D. While these VOC concentrations are likely landfill related, they are not considered to be of significance at this landfill.

There was a general trend towards higher parameter concentrations during the Fall monitoring compared to Spring concentrations. This is a continuing trend, consistent with past findings and normal groundwater conditions.

Bluewater has evaluated the long-term trends in groundwater quality at the LF site. Most parameter concentrations have remained fairly steady over the past several years suggesting that dilution and attenuation are dealing adequately with the refuse area derived leachate impacts.

### 5.2 Surface Water

No surface water sampling was completed during the Spring or Fall 2016 monitoring events from the dugout located just north of the landfill as the dugout was noted to be dry on both occasions.

### 5.3 Methane Monitoring

Methane gas is a by-product of waste decomposition and will be generated in the waste unit until all the organic matter is completely decayed. Methane, while it is a potential explosion hazard, is not a major concern provided that no building is ever permitted within approximately 30 meters of the refuse disposal area. The shallow water table and relatively permeable cover material at the Melancthon landfill are expected to prevent significant migration of methane. Gas produced by the landfill is expected to vent naturally to the atmosphere. It should be noted however, that ice, snow cover, and frozen ground in the winter may prevent methane gas from venting and cause methane gas to migrate laterally from the refuse disposal area.

If methane is present in concentrations between 5% and 15% in air it can become explosive. Below this range, there is an inadequate amount of methane for explosion. Above this range, there is an inadequate amount of oxygen for explosion. Therefore, 5% is considered the Lower Explosive Limit (LEL) and 15% is considered the Upper Explosive Limit (UEL) for methane.

Headspace methane monitoring was completed on all wells during both Spring and Fall 2016 monitoring events. The results of the methane monitoring are presented in Table 2 Appendix B. A slight detectable methane concentration was determined for OW-8 however no other of the monitors

had detectable methane concentrations during the Spring or Fall 2016 monitoring events. On-going methane monitoring should be incorporated in future monitoring events.

## 6.0 LANDFILL VOLUMES AND CAPACITY

The Melancthon landfill has a current design capacity of 297,000 $m^3$ on the approved 6.1 ha area. At the completion of 2012, 89,326 m3 of the total volume had been filled. The volume survey completed during October 2013 determined that the landfill volume used during 2013 was 10,636 $m^3$ meaning the total volume used to the end of 2015 is 99,962 $m^3$. The 2013 volume included the importation of ~ 2,000 m3 of clean fill to cover the current fill area based on the end of waste receiving at the site. No waste was added during 2016. Based on this figure, the remaining fill volume for this design is 197,038 $m^3$.

## 7.0 SUMMARY AND CONCLUSIONS

The following section summarizes the findings of the 2015 Annual Groundwater Monitoring Report:

- The Township of Melancthon operates a 'natural attenuation' landfill site in a remote, sparsely populated area of the Township. Surrounding land use is predominantly agricultural and the nearest residence is located ~450 m south of the site;

- During 2013 The County of Dufferin assumed waste collections and disposal responsibilities for Melancthon Township. No waste was imported to the landfill during 2016. At this time, further waste placement at this landfill is not anticipated given adequate service is maintained by the County;

- Two main hydrogeological units exist in the subsurface of the site. The upper unit, referred to as overburden, consists of sand and gravel and silty sand soils. The groundwater level in the overburden is unconfined and shallow (<2m) and shows seasonal fluctuations with Spring levels generally higher than those in Fall. This fluctuation is likely the result of the addition of snow melt water during the Spring. The second, deeper hydrogeological unit is the underlying dolostone bedrock aquifer. The water level in the bedrock is generally lower than in the overburden. This creates a downward vertical hydraulic gradient that allows landfill-generated impacts to potentially enter the bedrock aquifer;

- Mounding of groundwater occurs within both hydrogeological units within the refuse disposal area. This mounding creates a radial flow pattern in the refuse area that drives flow in all directions away from the mound. The groundwater then comes under the influence of the background (natural) flow regime. Groundwater flow in the overburden aquifer is northeast towards the entrance to the landfill in the northeast corner of the property. Flow in the bedrock aquifer is more-directly to the east and the eastern property boundary;

- Comparison of the laboratory analytical data from the Spring and Fall 2016 monitoring events to the applicable ODWS and RUP objectives indicates that background water quality exceeds ODWS Standards for hardness, alkalinity, iron and manganese;

- Exceedance of the MOE RUP objectives for parameters such as hardness, alkalinity, manganese and iron were determined at most sampled locations during 2016. These concentrations are likely at least partially unrelated to landfill impacts and reflect general water quality in Melancthon Township. No chloride RUP exceedance was noted for any off-site or on-site wells. Exceedance of the RUP for other leachate-indicators such as sulphate was not noted during 2016 near property boundaries. Exceedance of the RUP and ODWS for sulphate occurred at OW-8, located immediately downgradient of the principal fill area. Elevated sulphate concentrations in excess of the RUP were determined at OW-18S, OW-18D and OW-20D during the Spring 2013 monitoring. These apparently anomalous sulphate concentrations were not repeated during 2014, 2015 or 2016. Further on-going monitoring will be used to track future sulphate concentrations at these monitor locations;

- Significant methane concentrations were not determined during 2016;

- The site is currently in compliance with the terms and conditions of its C of A.

## 8.0 RECOMMENDATIONS

The following recommendations are made regarding the future Groundwater Monitoring and Sampling Program at the Township of Melancthon landfill site:

- Continuation of the semi-annual groundwater monitoring and sampling program including a routine site inspection, recording of static water levels at all 36 monitoring locations and groundwater sampling and laboratory analysis of the selected monitoring wells in both Spring and Fall;

- Preparation and submission of an Annual Monitoring Report to MOE for review.

- Natural dilution of contaminants derived in the refuse disposal area coupled with natural attenuation in the overburden appears to be dealing with derived groundwater impacts adequately at this time. The widespread occurrence, including upgradient locations, of ODWS and RUP exceeding manganese, iron, hardness and alkalinity concentrations appears to be more a function of natural geologic conditions than landfill-derived impacts. Lab results for monitors downgradient of the principal fill areas show more elevated chloride and sulphate concentrations, which are not similar to findings in the northeast corner of the property.

- Monitoring for headspace methane concentration in all wells should be continued for the 2017 program.

## 9.0 REFERENCES

Bluewater Geoscience Consultants Inc., 2005. "Annual Groundwater Monitoring and Sampling Report 2004".

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Bluewater Geoscience Consultants Inc., 2007. "Annual Groundwater Monitoring and Sampling Report 2006".

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Burnside Environmental Limited, 2000. "Hydrogeological Monitoring Report, Township of Melancthon Landfill Site"

Gwyn, Q.H.I. and Frazer, J.Z., 1975a. "Drift Thickness of the Dundalk Area, Southern Ontario; Ontario Division of Mines, Preliminary Map P.306 (revised), Bedrock Topography Series, Scale 1:50,000. Geological Compilation.

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MOE, August 2000. "Ontario Drinking Water Standards".

MOE, April 1994. "Incorporation of the Reasonable Use Concept into MOEE Groundwater Management Activities".

MOE, July 1994. "Policies, Guidelines, Provincial Water Quality Objectives".

MOE, 1998 "Landfill Standards"

Rubicon Environmental Inc., 2004. "Landfill Monitoring 2003, Township of Melancthon Landfill Site".

Telford, P.G., Bond, I.J. and Liberty, B.A., 1974. "Palaeozoic Geology of the Dundalk Area, Southern Ontario, Ontario Division of Mines, Preliminary Map P.946 Geological Series", Scale 1:50,000.

## 10.0 LIMITATIONS

This report was prepared for the exclusive use of The Township of Melancthon. This report is based on information and data collected during the completion of an environmental investigation of the Site carried out by Bluewater Geoscience Consultants Inc., and is based solely on the site conditions encountered at the time of the assessment and the applicable guidelines in place at the time of this investigation.

It should be noted that the observations and recommendations presented in this report are limited to the actual locations explored and laboratory parameters analyzed. The information presented in terms of the thickness and types of the sub-soils encountered, groundwater levels and chemical testing results, etc., are only applicable to the actual locations explored. Variations may be present between these locations. Should significant variation become apparent during later investigations, it may be necessary to re-evaluate the recommendations of this report. The results of an investigation of this nature should, in no way, be construed as a warranty that the site is free from any and all contamination from past or current practices since conditions may be different from the locations tested. This assessment was carried out using existing historical information as available from various agencies and no assurance is made regarding the accuracy or completeness of this information.

If new information is discovered during future work, including excavation, borings or other studies, Bluewater Geoscience Consultants Inc. should be requested to re-evaluate the conclusions presented in this report and to provide amendments as required. The analytical test results are assumed to be correct and performed according to all current regulations. No audit of the laboratory's methods or procedures was performed.

This assessment does not include, nor is it intended to include, any option regarding the suitability of any structure on the site for any particular function, the integrity of the on-site buildings or the geotechnical conditions on the site. Inspections of buildings do not include compliance with building, gas, electrical or boiler codes, or any other federal, provincial or municipal codes not associated with environmental concerns. Should concerns regarding any issue other than environmental matters arise as a result of our investigations, appropriately qualified professionals should address them.



## 11.0 CLOSURE

Bluewater Geoscience Consultants Inc. operates under a Certificate of Authorization from The Association of Professional Geoscientists of Ontario (APGO). Breton Lemieux is a registered Qualified Person (QP) with MOE and is a licensed Professional Geoscientist with over twenty years of international environmental consulting experience. Mr. Lemieux has a Geologic Technologist Diploma from Fleming College in Lindsay, Ontario, an Honours Bachelor of Science degree in Geology from the University of the West Indies in Kingston, Jamaica and a Master of Science degree in Earth Sciences from the University of Waterloo. His experience includes conducting Phase I, II and III ESAs at a wide variety of contaminated sites, underground storage tank removal supervision, water supply development, environmental building science and other site and landfill environmental monitoring projects.

## Denise Holmes

**From:** Kopernicky, Monica (MNRF) <Monica.Kopernicky@ontario.ca>
**Sent:** Tuesday, February 14, 2017 4:39 PM
**To:** sburns@dufferincounty.ca; ljuffermans@nvca.on.ca; Mott, Ken (MNRF); dholmes@melancthontownship.ca
**Cc:** Henderson, Brandon (MNRF); Olah, Jennifer (MNRF)
**Subject:** NEC Request for Comments D/R/2016-2017/361(1392119 Ontario LTD)
**Attachments:** 17-361 1392110 Ontario LTD Request for Comments Agencies.pdf; 17-361 1392110 Ontario LTD EIS Report.pdf

Dear Agencies,

Attached is the NEC request for comments for application D/R/2016-2017/361(1392119 Ontario LTD). Kindly provide your comments to John Stuart at brandon.henderson@ontario.ca with a copy to Jennifer at jennifer.olah@ontario.ca on or before March 17, 2017.
Please contact Brandon Henderson at 905-877-4026 should you have any questions.

Thank you,

Monica Kopernicky
Administrative Assistant
Niagara Escarpment Commission
232 Guelph Street, 3rd Floor
Georgetown, ON L7G 4B1

Tel. 905-877-1728
Fax.905-873-7452
Email Monica.Kopernicky@Ontario.ca
Website www.escarpment.org

**To enable us to serve you better, please call ahead to make an appointment.**





ACT 1
MAR 16 2017

Niagara Escarpment Commission

232 Guelph St.
Georgetown, ON L7G 4B1
Tel: 905-877-5191
Fax: 905-873-7452
www.escarpment.org

Commission de l'escarpement du Niagara

232, rue Guelph
Georgetown ON L7G 4B1
No de tel. 905-877-5191
Télécopieur 905-873-7452
www.escarpment.org

Niagara Escarpment Commission
An agency of the Government of Ontario

February 14, 2017
County of Dufferin
Nottawasaga Valley Conservation Authority
Ministry of Natural Resources-Midhurst district
Township of Melancthon

## REQUEST FOR COMMENTS

| | |
|---|---|
| FILE NUMBER: | D/R/2016-2017/361 |
| APPLICANT: | 1392119 Ontario LTD |
| AGENT: | David Metz |
| OWNER: | Same as applicant |
| LOCATION: | Part Lot 14, Concession 2 OS<br>Part Lot 14 Con 2 OS, Church Street, Melancthon<br>Township of Melancthon, County of Dufferin |
| RELATED FILES: | 7994/D/R/2003-2004/142; 7001/D/R/2000-2001/38; 4706/D/R/1991-1992/198 |

DESCRIPTION OF PROPOSED DEVELOPMENT: **To sever an existing 1.19 ha (2.95) existing lot into a 0.41 (1.02 ac) proposed lot and a 0.78 ha (1.93 ac) retained lot and to construct a 2 storey, ± 418 sq m (± 4500 sq ft) single dwelling with a maximum height to peak of ± 9.14 m (± 30 ft), and construct a septic treatment system, driveway, two porches, deck, and well, on the 0.41 (1.02 ac) proposed lot.**

The attached Development Permit application, which is summarized above, is being sent to you for your review. Your comments and recommendations are requested for the Niagara Escarpment Commission's consideration.

We request your comments by: **March 17, 2017.** If we do not receive your comments, we will assume you have no objection to the proposal. If you require additional time to provide comments, please call immediately.

If you require further information, please contact Brandon Henderson, at 905-877-4026 or e-mail: brandon.henderson@ontario.ca.

FILE # DIR/16-17/1361

(For NEC office use only)

Niagara Escarpment Commission
A Agency of the Government of Ontario

# NIAGARA ESCARPMENT DEVELOPMENT PERMIT APPLICATION

(Revised April 17, 2014)

THE NIAGARA ESCARPMENT PLANNING AND DEVELOPMENT ACT, RSO, 1990, AS AMENDED

NIAGARA ESCARPMENT COMMISSION
232 Guelph Street, 3rd Floor
Georgetown, ON L7G 4B1

Phone: 905-877-5191
Fax: 905-873-7452
Website: www.escarpment.org
Email: necgeorgetown@ontario.ca

*Serving the areas of:*

Dufferin County
Region of Halton
Region of Peel
Region of Niagara
City of Hamilton

RECEIVED
JAN 0 0 2017
NIAGARA ESCARPMENT COMMISSION

NIAGARA ESCARPMENT COMMISSION
Box 308, 99 King Street East
Thornbury, ON N0H 2P0

Phone: 519-599-3340
Fax: 519-599-6326
Website: www.escarpment.org
Email: necthornbury@ontario.ca

*Serving the areas of:*

Bruce County
Grey County
Simcoe County

- Please ensure that the information you provide in this application is complete and accurate.
- Incomplete or inaccurate information will delay the processing of your application.
- Please contact your local Commission office if you have any questions about your proposal or this application.

## 1. APPLICANT

Name: 1392119 ONTARIO LTD

Mailing Address: PO BOX 33 (Street/P.O. Box) SHELBURNE (City/Town) ONT (Province) L9V 3L8 (Postal Code)

Phone: 519-925-1904 Fax: 519-925-6691 E-mail: metz.homes@rogers.com

## 2. AGENT (if any)

Note: All correspondence will be sent to the Agent where an Agent is designated.

Name: DAVID METZ

Mailing Address: 129 BIRCH GROVE (Street/P.O. Box) SHELBURN (City/Town) ON (Province) L9V 2W3 (Postal Code)

Phone: 519-925-1904 Fax: 519-925-6691 E-mail: metz.homes@rogers.com

## 3. OWNER (if different from applicant)

Name: _____

Mailing Address: _____ (Street/P.O. Box) (City/Town) (Province) (Postal Code)

Phone: _____ Fax: _____ E-mail: _____

## 4. CONTRACTOR (if applicable)

Name: METZ HOMES LTD

Mailing Address: BOX 33 (Street/P.O. Box) SHELBURNE (City/Town) ON (Province) L9V 3L8 (Postal Code)

Phone: _____ Fax: _____ E-mail: _____

FMS # (0113)

## 5. PROPERTY LOCATION

County/Region DUFFERIN Municipality MELANCTHON (former) Municipality _____

Lot Pt Lot 14 Concession 20S and/or Lot _____ Plan _____

Civic Address # _____ (Fire/Emergency #) Street Address CHURCH ST.

## 6. LOT INFORMATION

Lot Size 1.19 ha Frontage 112.4 m Depth 152.42m

## 7. SERVICING

| | | | | |
|---|---|---|---|---|
| Existing Road Frontage: | ☑ Municipal | ☐ Private | ☐ Right-of-Way | ☐ Year-round |
| Proposed Road Frontage: | ☑ Municipal | ☐ Private | ☐ Right-of-Way | ☐ Year-round |
| Existing Water Supply: | ☐ Municipal | ☐ Communal | ☐ Private Well | ☐ Other: _____ |
| Proposed Water Supply: | ☐ Municipal | ☐ Communal | ☑ Private Well | ☐ Other: _____ |
| Existing Sewage System: | ☐ Municipal | ☐ Communal | ☐ Private Septic | ☐ Other: _____ |
| Proposed Sewage System: | ☐ Municipal | ☐ Communal | ☑ Private Septic | ☐ Other: _____ |

## 8. EXISTING and PROPOSED DEVELOPMENT

Note: "Development" includes the construction of buildings and structures, alterations to the landscape, (e.g: placing fill, drainage alterations, pond construction or alteration), any change of use or new use (e.g: residential to commercial, new home business, etc). If additional space is required please include a separate attachment.

| | Existing Development: (describe) | Proposed Development: (describe) |
|---|---|---|
| Residential | VACANT LOTS(1) | SINGLE FAMILY HOME W ATTACHED GARAGE (2) |
| Recreational | | |
| Agricultural | | |
| Commercial | | |
| Other (e.g., industrial, institutional) | | |

## 9. EASEMENTS, COVENANTS, AGREEMENTS

Describe the type and terms of any easements, right-of-ways, covenants, agreements or other restrictions registered on or affecting the title of the property and/or attach a copy:

NONE

## 10. DATE OF PURCHASE

Date the property was purchased by the current owner: OCT 22-2010

Date the property will be purchased by the applicant (if purchasing from current owner): _____

**Note regarding Sections 11, 12, 13, 14, 15, 16:**
Depending on the type or nature of the proposed development and/or the characteristics of the property, supporting information such as Environmental Impact Studies, Landscape Plans, Lighting Plans, Visual Assessments, Grading Plans, Erosion Control Plans, Slope Stability Studies, etc., may be required in support of the following information.

## 11. CONSTRUCTION DETAILS

**PLEASE NOTE**
**Ground Floor Area** is the total exterior measurements of any building, including attached garages and enclosed decks (as applicable).
**Total Floor Area** (i.e., total mass) is based on the exterior measurements of the building and includes the total of the ground floor area (including attached garages, etc), plus walkout basements, plus full or half second stories, etc.
**Maximum Height** is measured from the lowest grade (e.g., walkout side), to the peak of the roof.

| | Ground Floor Area (Exterior measurements) | Total Floor Area | # of Storeys | Maximum Height (to peak) | Use of structure |
|---|---|---|---|---|---|
| Dwelling | 3500 SF | 4500 SF | 2 | 30' | |
| Dwelling Addition | | | | | |
| Accessory Building 1 | | | | | |
| Accessory Building 2 | | | | | |
| Accessory Building Addition | | | | | |
| Other Building | | | | | |
| Demolition (specify what structure) | | | | | |

*If fill is required for any of the developments proposed above please provide details in Section 12 below.

## 12. ACCESSORY FACILITIES, STRUCTURES, FILLING, GRADING, etc.

(e.g: Driveways, Decks, Gazebos, Swimming Pools, Tennis Courts, Lighting, Signs, Wind Turbines, free-standing Solar Panels, Hydro Poles/Lines, Retaining Walls, Placement of Fill, Grading, Berms, Parking Areas, Tree/Site Clearing, etc.) (See next page for Ponds)

Describe and provide information such as: dimensions, size, height, amount of fill etc.

N/A.

## 13. HOME BUSINESS, CHANGE OF USE, NEW USE

(e.g: Establishing a Home Business, Home Occupation, Home Industry or Bed and Breakfast business.
Converting or changing the use, or establishing a new use on a property or within any dwelling building or structure on a property.)

Describe the proposed business or new use and provide information such as:
Type of business or use, size or area of building &/or land to be occupied or altered by the use, construction or alteration details, number of employees, access, parking, storage details, sales, hours of operation, signage, etc.
Note: A separate, detailed business overview or plan should be provided.

N/A.

## 14. PONDS – New pond / Existing pond work – dredging, maintenance, repair, etc.) N/A

The following information is the minimum information that is required for pond construction or alteration/maintenance. Generally, a hydrology/hydrogeology report and/or an environmental impact assessment is also required.

Pond is: ☐ Proposed ☐ Existing

Type of Pond: ☐ Dug ☐ Spring-fed ☐ Other (e.g., on-stream, by-pass) _____

Use of Pond: ☐ Recreation ☐ Livestock/farm ☐ Irrigation ☐ Other _____

Water Source: ☐ Precipitation/run-off ☐ Springs ☐ Well ☐ Other _____

Size of Pond: Water Area _____ Depth of Water _____

Height of Banks _____ Width of Banks _____

Setbacks: Distance to nearest watercourse, wetland and/or roadside ditch: _____

Distance to nearest existing or proposed septic system: _____

Construction Details/Inflow/Outflow Details, Emergency Outflow/Spillway Details: _____
(describe type of construction, water supply, receiving area or watercourse, etc.)

Erosion/sediment control measures: _____

Placement of excavated material: _____

Finish grading and landscaping: _____

## 15. AGRICULTURAL DEVELOPMENT N/A.

If your proposal involves agricultural land or uses, indicate and briefly describe here; and complete other sections of this application form as applicable. Note: Additional detailed information may be required.

☐ Small Scale Commercial Use Accessory to Agriculture: _____
☐ Mobile Dwelling Accessory to Agriculture: _____
☐ Dwelling in Agricultural Area (near barns – MDS i): _____
☐ Livestock Facility (MDS ii): _____
☐ Equestrian Facility (e.g, arenas, riding rings, events): _____
☐ Farm Pond: _____
☐ Winery: _____
☐ Winery Event: _____
☐ Farm Vacation Home: _____
☐ 'Agricultural Purposes Only' (APO) Lot Creation: _____

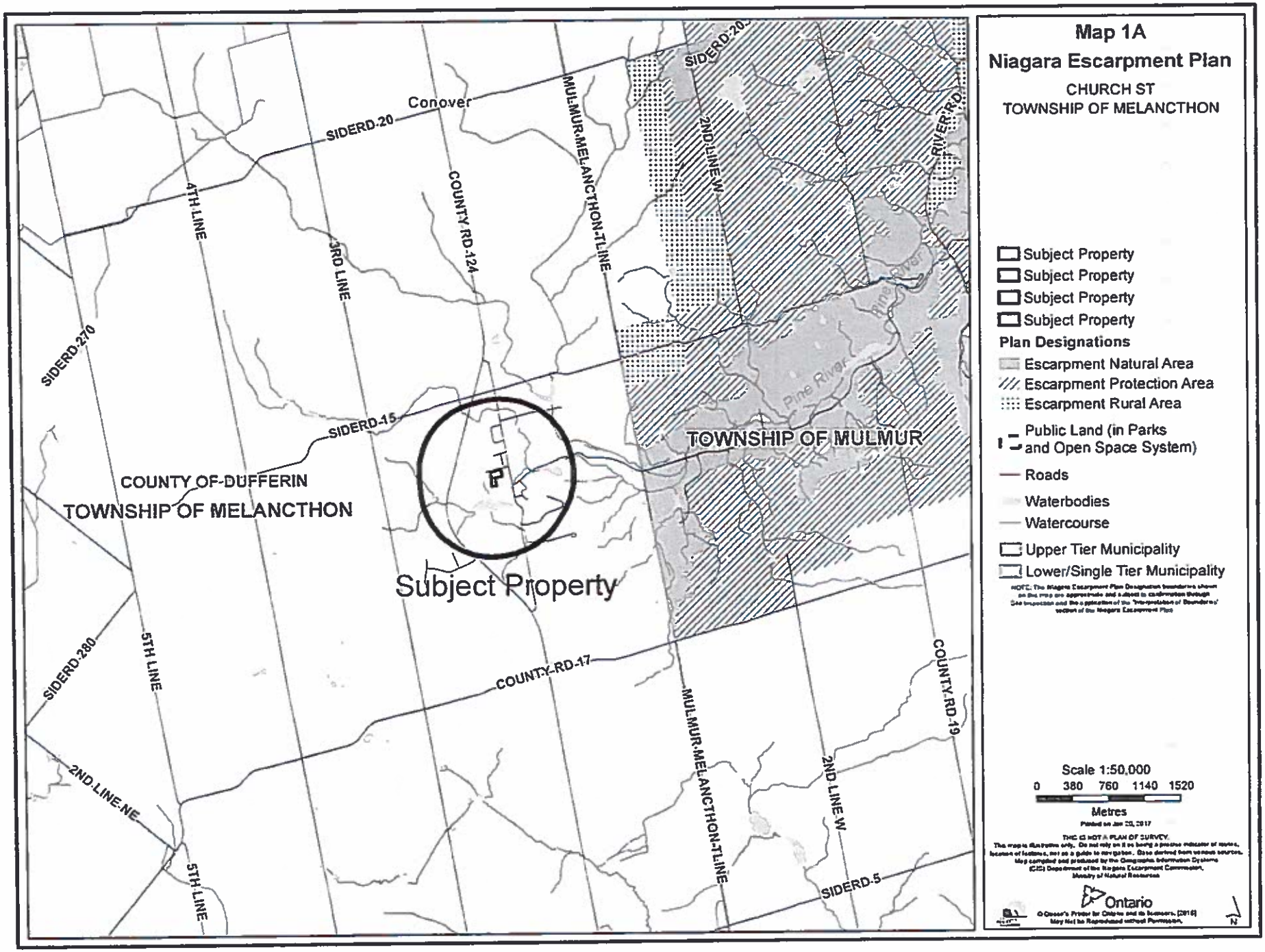
## 16. LOT CREATION

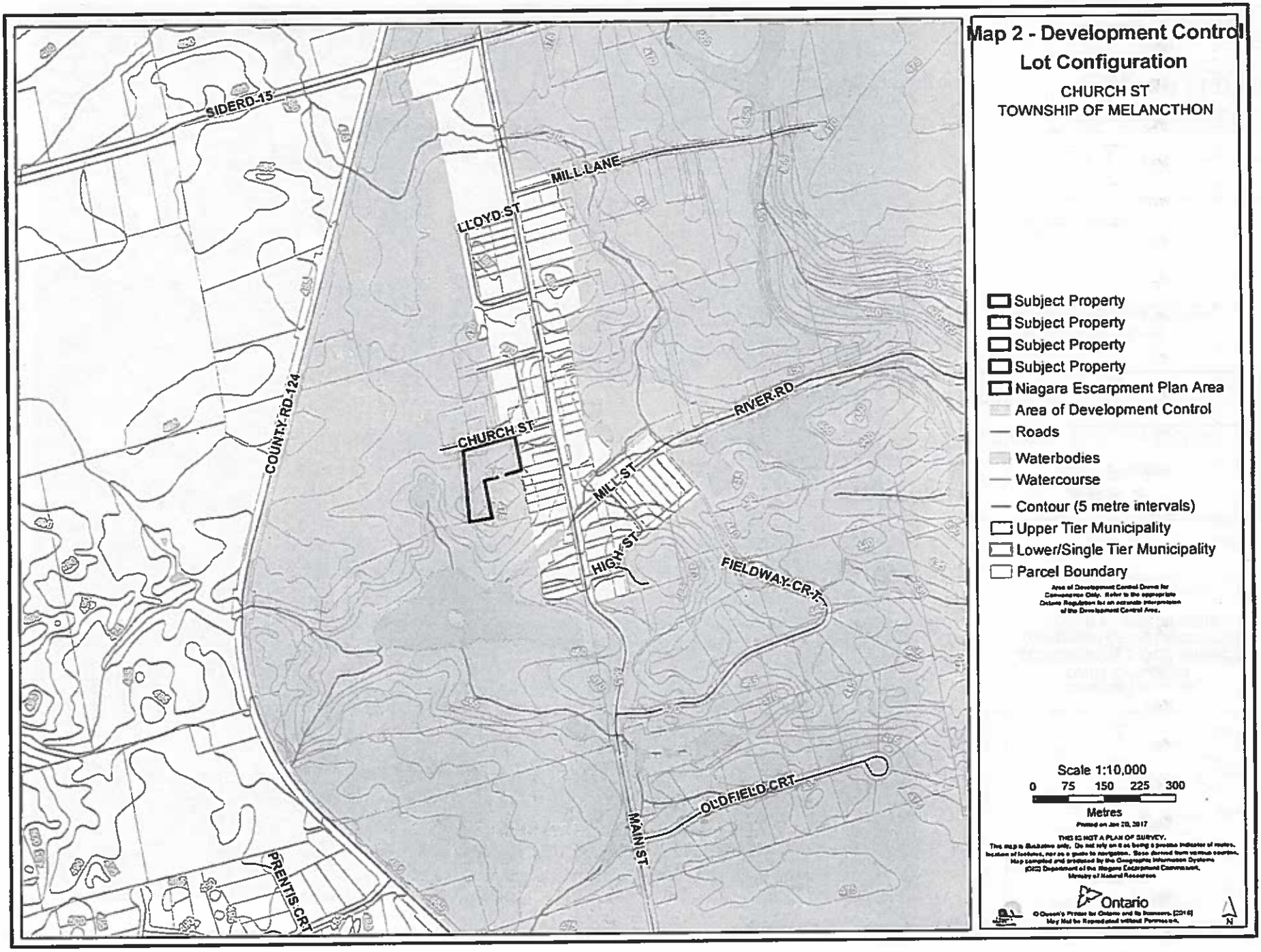
If this application involves the creation / severance of a new lot, please provide the following information:

| i) Existing Lot: | ii) Proposed Lot: | iii) Retained Lot: | iv) Use of new Lot |
|---|---|---|---|
| Frontage 112.4m | Frontage 56.2m | Frontage 56.2m | ☑ Residential |
| Depth 152.42m | Depth 73.42m | Depth 152.42m | ☐ Agricultural/APO |
| Size 1.19 ha | Size .41 ha | Size .78 ha | ☐ Conservation |
| | | | ☐ Lot Addition |
| | | | ☐ Commercial |
| | | | ☐ Industrial |

## 17. OTHER INFORMATION

Additional information to clarify your proposal may be submitted here or on a separate attachment: DIVIDE PROPERTY INTO 2 LOTS.


Map 1A
Niagara Escarpment Plan
CHURCH ST
TOWNSHIP OF MELANCTHON
Conover
SIDERD-20
SIDERD-20
2ND LINE W
RIVER RD
MULMUR-MELANCTHON-TLINE
4TH LINE
3RD LINE
COUNTY RD-124
SIDERD-270
SIDERD-15
TOWNSHIP OF MULMUR
COUNTY OF DUFFERIN
TOWNSHIP OF MELANCTHON
Subject Property
SIDERD-280
5TH LINE
COUNTY-RD-17
COUNTY-RD-19
2ND LINE NE
2ND LINE W
MULMUR-MELANCTHON-TLINE
SIDERD-5
5TH LINE
Subject Property
Subject Property
Subject Property
Subject Property
Plan Designations
Escarpment Natural Area
Escarpment Protection Area
Escarpment Rural Area
Public Land (in Parks and Open Space System)
Roads
Waterbodies
Watercourse
Upper Tier Municipality
Lower/Single Tier Municipality
Scale 1:50,000
0 380 760 1140 1520
Metres
Ontario


SIDERD-15
MILL LANE
LLOYD ST
COUNTY RD-124
CHURCH ST
RIVER RD
MILL ST
HIGH ST
FIELDWAY CRT
OLDFIELD CRT
MAIN ST
PRENTIS CRT
Map 2 - Development Control
Lot Configuration
CHURCH ST
TOWNSHIP OF MELANCTHON
Subject Property
Subject Property
Subject Property
Subject Property
Niagara Escarpment Plan Area
Area of Development Control
Roads
Waterbodies
Watercourse
Contour (5 metre intervals)
Upper Tier Municipality
Lower/Single Tier Municipality
Parcel Boundary
Area of Development Control Shown for Convenience Only. Refer to the appropriate Ontario Regulation for an accurate interpretation of the Development Control Area.
Scale 1:10,000
0 75 150 225 300
Metres
Printed on Jan 20, 2017
THIS IS NOT A PLAN OF SURVEY.
This map is illustrative only. Do not rely on it as being a precise indicator of routes, locations of features, nor as a guide to navigation. Data derived from various sources.
Map compiled and produced by the Geographic Information Systems (GIS) Department of the Niagara Escarpment Commission, Ministry of Natural Resources
Ontario
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May Not be Reproduced without Permission.
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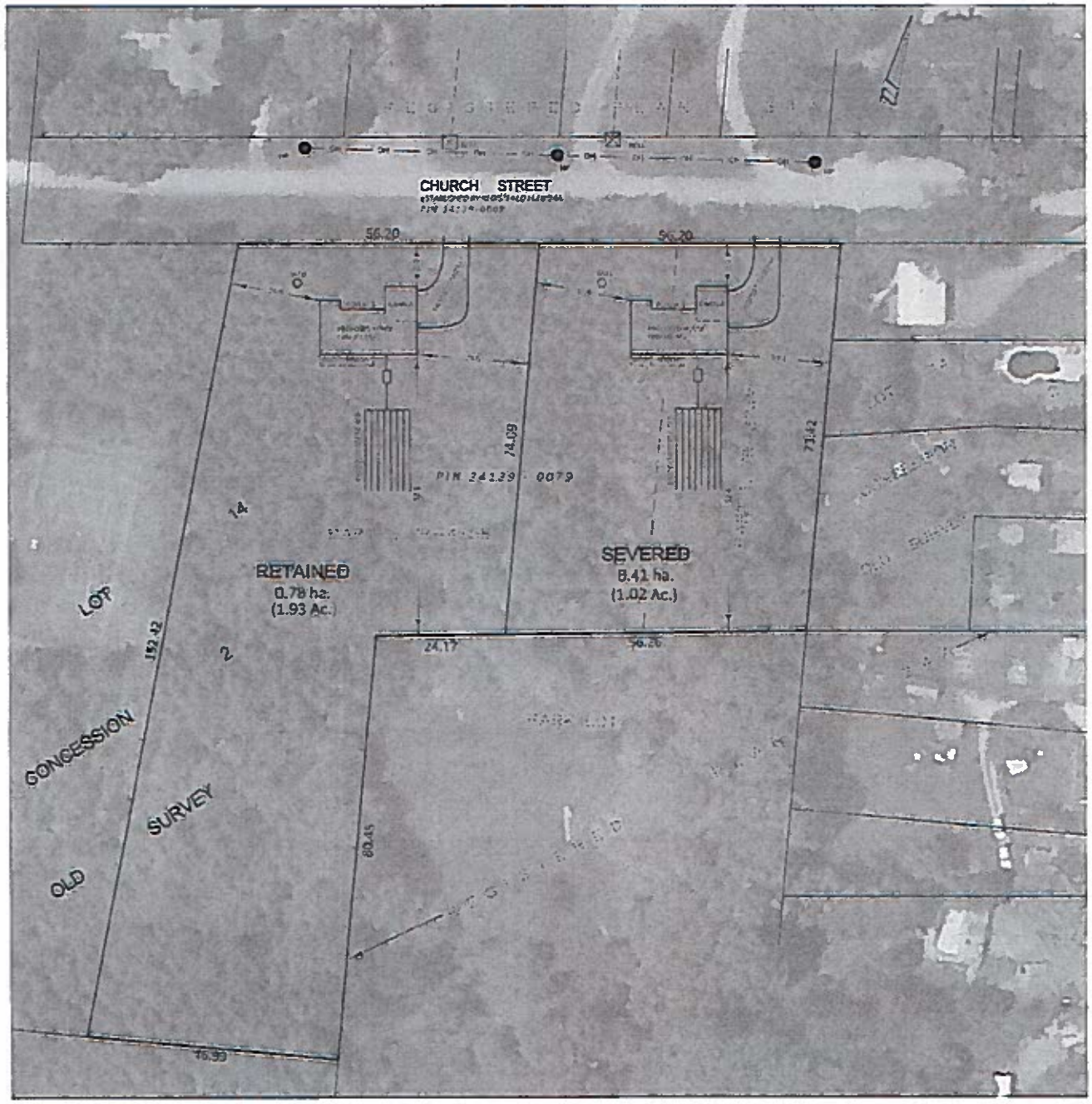




CONCEPTUAL SITE PLAN ON

**PART OF LOT 14**
**CONCESSION 2, OLD SURVEY**
**TOWNSHIP OF MELANCTHON**
**COUNTY OF DUFFERIN**

SCALE 1 : 500

VAN HARTEN SURVEYING INC.

# MAP 3
## Site Plan

FILE NO. DIR16-171361

APPLICANT 1342119 ONTARIO LTD

NOTE:
THIS IS NOT A PLAN OF SURVEY

BOUNDARY INFORMATION SHOWN HEREON IS BASED ON RECORDS FOUND AT THE LAND REGISTRY OFFICE, PLANS 7R-4758, 7R-3747 AND REGISTERED PLAN No. 344

METRIC:
DISTANCES SHOWN ON THIS PLAN ARE IN METRES AND CAN BE CONVERTED TO FEET BY DIVIDING BY 0.3048

| No. | BY | DATE | REVISION |
|---|---|---|---|
| 1 | EC. | AUG 11/16 | FIRST SUBMISSION TO CLIENT |

Van Harten
SURVEYING INC.
LAND SURVEYORS and ENGINEERS

Orangeville
Ph: 519-940-0310

www.vanharten.com info@vanharten.com

## Denise Holmes

**From:** Source Protection Funding (MOECC) <SourceProtectionFunding@ontario.ca>
**Sent:** Thursday, March 09, 2017 1:59 PM
**To:** Denise Holmes
**Cc:** Source Protection Funding (MOECC)
**Subject:** RE: SPMIF- Melancthon - 2016-17 Extension Request
**Attachments:** SPMIF_1314_056_MEL_Amend3_2017 Extension.pdf

**Importance:** High

Dear Denise,

Please be advised that your extension request has been approved.

Attached is your Agreement Amendment #3 to formally extend the timelines for expending SPMIF funds. Please:

1. Print off two copies of the attached amendment.
2. Have both copies signed by someone with the authority to bind the municipality.
3. Scan and send a signed copy to sourceprotectionfunding@ontario.ca using the subject line: "SPMIF – Melancthon Township – 2017 Extension Amendment".
4. Return the two original signed copies to the address below by **March 22, 2017.**

Ministry of the Environment and Climate Change
Source Protection Programs Branch
40 St. Clair Avenue W., 14th Floor
Toronto, ON M4V 1M2
Attn: Ms. Saira Bozin Ilisinovic, Program Coordinator

We will return an original duly executed amendment to you once signed at the Ministry for your files.
If you have any questions please let us know,

Best regards,

***Saira Bozin Ilisinovic***
*Program Coordinator*
***MOECC – Source Protection Programs Branch***
*40 St. Clair Avenue W. Toronto ON M4V 1M2*
*416-212-5483*
*Saira.Bozin-Ilisinovic@Ontario.ca*

---

**From:** Denise Holmes [mailto:dholmes@melancthontownship.ca]
**Sent:** January-03-17 1:42 PM
**To:** Source Protection Funding (MOECC)
**Subject:** SPMIF- Melancthon - 2016-17 Extension Request

Good afternoon,



ACT 2
MAR 16 2017

I would like to request an extension to our Source Protection Implementation Fund by one year to March 31, 2018.

Please find attached, the required work plan to support my timeline extension request.

Should you have any questions, please do not hesitate to contact me.

Thank you.

Regards,

*Denise Holmes*

Denise B. Holmes, AMCT | Chief Administrative Officer/Clerk | Township of Melancthon | dholmes@melancthontownship.ca | PH: 519-925-5525 ext 101 | FX: 519-925-1110 | www.melancthontownship.ca |

**AMENDMENT NO. 3**
**to a Grant Funding Agreement under the**
**2013-14 Source Protection Municipal Implementation Fund (SPMIF_1314_056)**

**THIS AMENDMENT NO. 3** made in duplicate, as of the 9th day of March 2017,

**B E T W E E N:**

**HER MAJESTY THE QUEEN IN RIGHT OF ONTARIO**
as represented by the Minister of the Environment and Climate Change

(the **"Province"**)

- and -

**The Corporation of the Township of Melancthon**

(the **"Municipality"**)

**WHEREAS** the parties entered into a grant funding agreement under the Source Protection Municipal Implementation Fund dated as of December 13, 2013 for the Municipality to build municipal capacity to implement source protection plans and support sustainable, local actions to protect drinking water (the **"Agreement"**);

**AND WHEREAS** the parties entered into Amendment No. 1 as of September 8, 2015 to extend the term of the Agreement, add an additional report and include new timelines;

**AND WHEREAS** the parties entered into Amendment No. 2 as of July 11, 2016 to extend the term of the Agreement, add an additional report, include new timelines, and expand the scope of eligible activities;

**AND WHEREAS** pursuant to Section 20.2 of the Agreement, the parties may amend the Agreement in writing;

**NOW THEREFORE** in consideration of the contractual relationship between the Municipality and the Province referred to above and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged by both parties, the Municipality and the Province hereby acknowledge, agree and undertake as follows:

1. Unless otherwise specified in this Amendment No. 3, capitalized words and phrases have their prescribed meaning as set out in the Agreement.

2. The Agreement is amended as follows:

   2.1 Section 2.1 as amended by Amendment No. 2 is again deleted in its entirety and replaced with the following:

2.1 The term of the Agreement shall commence on the Effective Date and shall expire on **March 31, 2018** unless terminated earlier pursuant to Article 9. The Municipality shall, upon expiry or termination of the Agreement, return to the Province any Funds remaining in its possession or under its control.

2.2 The chart in Schedule "D" (Reports) as amended by Amendment No. 2 is again deleted in its entirety and replaced with the following:

| Name of Report | Due Date |
|---|---|
| Collaboration Statement (if applicable) | December 12, 2014 |
| Progress Report 1 | December 12, 2014 |
| Progress Report 2 | December 11, 2015 |
| Progress Report 3 | August 26, 2016 |
| Progress Report 4 | August 25, 2017 |
| Final Report | December 8, 2017 |
| Other Reports as specified from time to time | On a date or dates specified by the Province. |

2.3 The first paragraph under the heading Section B.1 Eligible Activities, in Schedule B is hereby deleted and replaced with the following:

The Municipality may only spend the Funds on the following eligible activities that are undertaken by the Municipality, or that are undertaken on the Municipality's behalf, between December 13, 2013 and December 4, 2017 that are directly related to the following:

3. This Amendment No. 3 shall be in force from December 13, 2013 and shall have the same expiry or termination date as the Agreement.

4. All other terms and conditions of the Agreement and Amendment No. 1 and Amendment No. 2 shall remain in full force and effect unchanged and unmodified.

5. This Amendment No. 3 shall enure to the benefit of and be binding upon the Municipality and the Province and each of their administrators, permitted successors and permitted assigns, respectively.

6. This Amendment No. 3 may be executed in any number of counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. To evidence its execution of an original counterpart, a party may send a copy of its original signature on the execution page hereof to the other party by facsimile or other means of recorded electronic transmission (including in PDF) and such transmission with an acknowledgement of receipt shall constitute delivery of an executed copy of this Amendment.

**IN WITNESS WHEREOF** the parties have executed this Amendment No. 3 as of the date first written above.

**HER MAJESTY THE QUEEN in Right of Ontario**
as represented by the Minister of the Environment and Climate Change

_____

Name: Heather Malcolmson
Title: Director
Source Protection Programs Branch

Pursuant to delegated authority.

**The Corporation of the Township of Melancthon**

_____

Name: Denise Holmes
Title: CAO

I have authority to bind the Municipality.

**Dundalk District Agricultural Society**
PO Box 497, Dundalk, ON, N0C 1B0

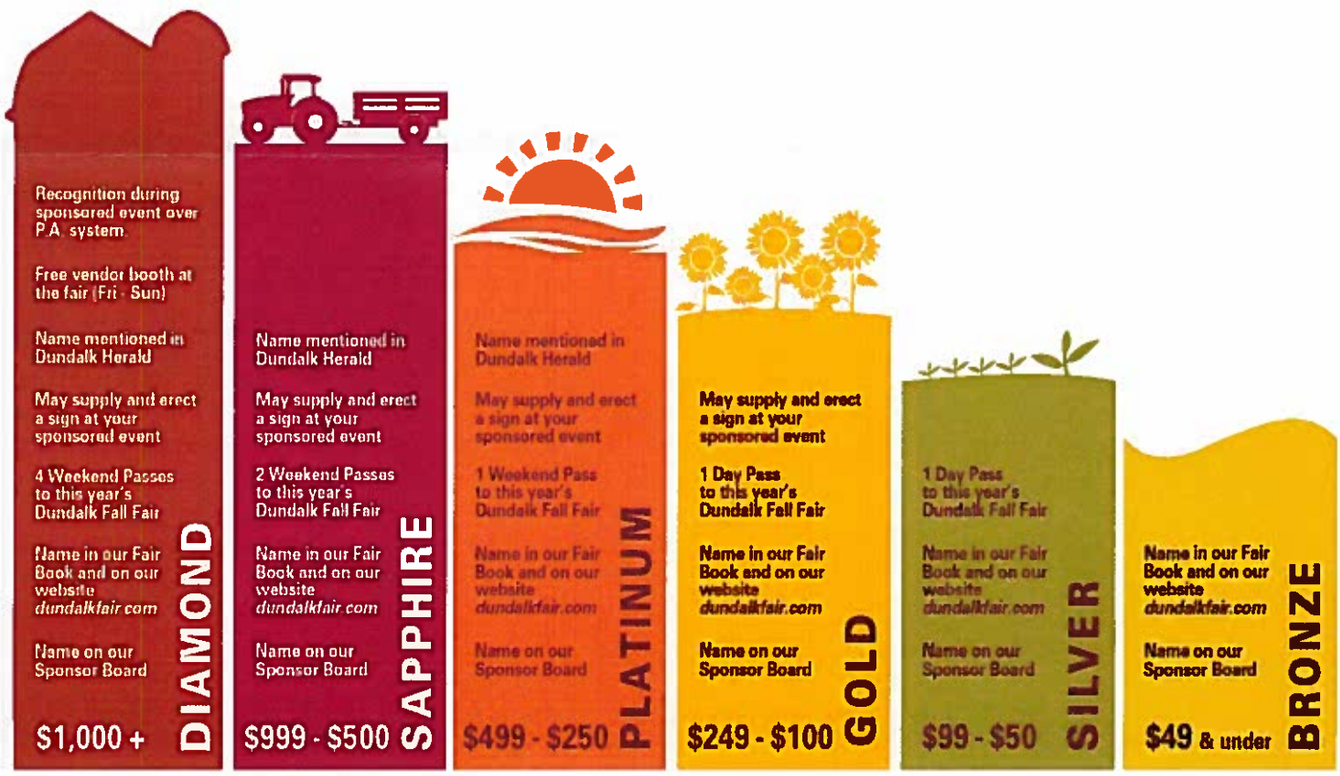
February 20, 2017

Dear Denise Holmes // Melancthon Township

Our annual fall fair will take place on September 8 – 10, 2017 at the Dundalk fair grounds. As 2017 is Canada's 150th birthday, we're incorporating this celebration into our fall fair with the theme *Red, White & Farmin'*. We're excited to incorporate the love for our country and the passion behind our rural community's roots into activities at this year's fair.

The Dundalk Agricultural Society has been supporting the community since 1855. We put on several other events throughout the year, but our fall fair is the highlight and by far the largest event of them all. The fair is a community-minded, not-for-profit event run by a group of dedicated volunteers who strive to host an entertaining and educational weekend for all ages. The Dundalk Fall Fair is the longest running annual event in our community. With over 20 classes of exhibitor categories, including special sections for kids, youth and seniors, people have the opportunity to display and exhibit a multitude of items from horticulture, field crops, arts and crafts, baking and sewing and quilting. Other features of our fair include the 4-H club shows, the truck and tractor pull and the fair ambassador program.

Please help us to maintain these traditions and enhance our fall fair experience. We welcome businesses and individuals to support our efforts through our sponsorship program. The cost of organizing and promoting successful events is forever increasing, thus, our reliance upon generous donations grows each year. We recognize that sponsors are major contributors to the success and future of our fair. Your support and assistance is greatly appreciated. In return for your financial support, we provide as much promotion and reward as we possibly can. See the sponsorship levels below:




With sincerest thanks,

The Dundalk Agricultural Society

Jessica Sherson-Cook
*DDAS President*

Kimberley Stacey
*DDAS Secretary*

facebook.com/Dundalkfairsociety
For more details visit www.dundalkfair.com

# 162nd Dundalk Fall Fair

**Dundalk Agricultural Society | September 8, 9 & 10, 2017**

Please complete this form and return
along with your cheque to the following address:

**Dundalk Agricultural Society Attn: Sponsorship Committee**
**PO Box 497, Dundalk, ON N0C 1B0**

RED, WHITE & FARMIN'

*Celebrating the 150th anniversary of Canada's confederation!*

www.dundalkfair.com

## 2017 Sponsorship Form

Company Name: _____

Name of Contact: _____

Address: _____

_____

Business Telephone: _____ Cell: _____

Email: _____

**Please check your level of sponsorship:**

| | |
|---|---|
| Diamond ($1,000+) ☐ | Gold ($100 - $249) ☐ |
| Sapphire ($500 - $999) ☐ | Silver ($50 - $99) ☐ |
| Platinum ($250 - $499) ☐ | Bronze ($49 or less) ☐ |

**Please specify how you would like your donation allocated:**

General Fair $ _____ 4-H Invitational $ _____ Ambassador Program $ _____

Horse Show $ _____ Other (please specify) $ _____

☐ Yes, I will provide a sign/banner for the fair committee to erect on fair weekend.
*(only applies to Diamond, Sapphire, Platinum and Gold sponsorship levels)*

A cheque is enclosed for $ _____

**Cheque payable to 'Dundalk Agricultural Society'**

Signature _____

Date _____

*Thank you for your generous support!*

**All sponsorships must be received by May 1, 2017 to be included in our fair book.**

If you have any questions, please call Kimberly Stacey (Secretary) at 519-306-1615

**For additional information, visit www.dundalkfair.com**

## Denise Holmes

**From:** Nicole Hill <nhillsecretary@gmail.com>
**Sent:** Thursday, March 02, 2017 3:00 PM
**To:** Carey Holmes; Carol Sweeney; thorner@mulmurtownship.ca; Denise Holmes; mark@townofmono.com
**Subject:** SDFD 2017 Capital Budget
**Attachments:** SDFD 2017 Capital Budget.pdf

Hello,

I have attached a copy of the adopted 2017 Capital Budget. An Operating Budget has not been adopted yet and I'm not sure when one will be adopted.

Regards,
Nicole Hill
Secretary-Treasurer

---





ACT 4
MAR 16 2017

# SHELBURNE & DISTRICT FIRE DEPT
## CAPITAL PLAN
## 2012 - 2018

### CAPITAL PLAN

| YEAR | ADOPTED 2014 | ADOPTED 2015 | ADOPTED 2016 | ADOPTED 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|
| Opening Balance | $ 169,631.37 | $ 335,474.66 | $ 398,379.66 | $ 365,184.06 | $ 469,684.06 | $ 152,184.06 |
| **Transfers In** | | | | | | |
| Plus: Interest | $ 2,371.29 | $ - | $ - | $ - | $ - | $ - |
| Plus: Special Capital Levy (prev $93,000) | $ 95,000.00 | $ 95,000.00 | $ 95,000.00 | $ 105,000.00 | $ 115,000.00 | $ 125,000.00 |
| Plus: Surplus from Previous Year | $ 54,394.00 | $ 5,405.00 | $ 21,304.40 | $ - | $ - | $ - |
| Plus: Sale of Unit #1-89 | $ 2,203.00 | $ - | $ - | $ - | $ - | $ - |
| Plus: Sale of Pumper | | | | | $ 20,000.00 | |
| Plus: Sale of Rescue | | | | | | |
| Plus: Extra Funding from Municipalities | $ - | $ - | $ - | $ - | $ - | $ - |
| Plus: Bell Tower Lease | $ 11,875.00 | $ 7,500.00 | $ 7,500.00 | $ 7,500.00 | $ 7,500.00 | $ 7,500.00 |
| **Transfers Out** | | | | | | |
| Less: Replace Unit 1 - Quint Truck | $ - | $ - | $ - | $ - | $ - | $ - |
| Less: Engineer Services | $ - | $ - | $ - | $ - | $ - | $ - |
| Less: Fire Hall Expansion | $ - | $ - | $ - | $ - | $ - | $ - |
| Less: Replace Fire Van - Unit 2 | $ - | $ - | $ - | $ - | $ - | $ - |
| Less: Repave Parking Lot | $ - | -$ 45,000.00 | $ - | $ - | $ - | $ - |
| Less: Replace Unit 7 - Pumper Truck | $ - | $ - | $ - | $ - | -$ 450,000.00 | $ - |
| Less: Replace SCBA's | $ - | $ - | -$ 157,000.00 | $ - | $ - | $ - |
| Less: Rescue Truck | | | | | | |
| Less: Contamination Room Reno | | | | | -$ 10,000.00 | |
| Less: Bunker Gear Room | | | | -$ 8,000.00 | | |
| Less: Truck Exhaust Control System | | | | | | |
| Less: Replace Tanker Truck | | | | | | |
| **Ending Balance** | **$ 335,474.66** | **$ 398,379.66** | **$ 365,184.06** | **$ 469,684.06** | **$ 152,184.06** | **$ 284,684.06** |

| Rolling Stock<br>List of Vehicles | Replacement Value | Year to Replace | |
|---|---|---|---|
| 1999 Freightliner Pumper Truck | $ 450,000.00 | 2014 | *stretch to 2018* |
| 2004 International Rescue Truck | $ 350,000.00 | 2019 | |
| 2009 Tanker Truck | $ 350,000.00 | 2024 | |
| 2012 Ford F150 Crew Cab | $ 30,000.00 | 2027 | |
| 2012 E-One Aerial Truck | $ 1,000,000.00 | 2027 | |

## Denise Holmes

**From:** Nicole Hill <nhillsecretary@gmail.com>
**Sent:** Thursday, March 09, 2017 2:23 PM
**To:** Carol Sweeney; Denise Holmes; thorner@mulmurtownship.ca; Susan Stone; mark@townofmono.com; Brad Lemaich
**Subject:** SDFD 2017 Operating Budget
**Attachments:** 2017 ADOPTED SDFD Operating Budget.pdf

Hello,

Please find attached the 2017 Operating Budget for the Shelburne & District Fire Board that was adopted at the March 7th, 2017 Board meeting.

Regards,

Nicole Hill

---





ACT 5
MAR 16 2017

# SHELBURNE & DISTRICT FIRE BOARD

## 2017 ADOPTED OPERATING BUDGET

PRESENTED: February 7, 2017

| ACCOUNT NUMBER | ACCOUNT NAME | 2016 BUDGET | 2016 ACTUAL | 2017 BUDGET |
|---|---|---|---|---|
| EXPENDITURES | | | | |
| 4100-0100 | Treasurer | $ 800.00 | $ 700.00 | $ 800.00 |
| 4100-0300 | Secretarial Services | $ 15,106.00 | $ 15,630.37 | $ 15,800.00 |
| 4100-0400 | Legal & Audit & HR Services | $ 5,000.00 | $ 2,493.12 | $ 5,000.00 |
| 4100-0500 | Mutual Aid Contributions | $ 450.00 | $ - | $ 450.00 |
| 4100-0600 | Material & Supplies | $ 7,500.00 | $ 4,315.24 | $ 5,000.00 |
| 4100-0700 | Services & Rentals | $ 4,500.00 | $ 4,223.05 | $ 4,500.00 |
| 4200-1650 | IT Support Dufferin County | $ 2,400.00 | $ 611.81 | $ 500.00 |
| 4100-0800 | Subscriptions & Memberships | $ 700.00 | $ 518.65 | $ 700.00 |
| 4100-0900 | Conventions & Conferences | $ 5,000.00 | $ 4,040.19 | $ 5,000.00 |
| 4100-1000 | Licence Renewal | $ 673.00 | $ 673.00 | $ 673.00 |
| 4100-1200 | Heath & Safety Expenses | $ 5,000.00 | $ 2,456.43 | $ 5,000.00 |
| 4100-1300 | Fire Prevention | $ 5,000.00 | $ 5,785.16 | $ 6,000.00 |
| 4100-1500 | Training - Courses/Expense | $ 6,000.00 | $ 3,626.35 | $ 9,000.00 |
| 4100-1800 | Communication Equipment & Dispatch | $ 16,000.00 | $ 19,248.37 | $ 16,000.00 |
| 4200-0100 | Fire Call Wages | $ 81,600.00 | $ 92,685.25 | $ 81,600.00 |
| 4200-0103 | Salaries/Standby/Meetings | $ 150,000.00 | $ 146,237.61 | $ 155,600.00 |
| 4200-0105 | Thursday Night Practice | $ 31,500.00 | $ 31,249.00 | $ 31,500.00 |
| 4200-0110 | Employers Portion - EI | $ 3,000.00 | $ 1,766.77 | $ 3,000.00 |
| 4200-0120 | Employers Portion - CPP | $ 7,000.00 | $ 6,921.03 | $ 7,000.00 |
| 4200-0150 | Mileage & Meals | $ 400.00 | $ 382.60 | $ 400.00 |
| 4200-0200 | Benefits (EHT & WSIB) (Manulife) | $ 21,400.00 | $ 21,855.28 | $ 22,470.00 |
| | OMERS Pension Plan | $ 12,500.00 | $ 11,867.30 | $ 13,000.00 |
| 4200-0400 | Employee Assistance Program | $ - | $ 708.25 | $ 710.00 |
| 4200-0500 | Protective Clothing/Uniforms | $ 14,000.00 | $ 13,085.45 | $ 14,000.00 |
| 4200-1000 | Truck Operations & Maintenance | $ 24,000.00 | $ 14,814.33 | $ - |
| 4200-1040 | Truck Operations & Maintenance - Pump 27 | $ - | | $ 4,800.00 |
| 4200-1030 | Truck Operations & Maintenance - Rescue 26 | $ - | | $ 4,800.00 |
| 4200-1050 | Truck Operations & Maintenance - Ladder 28 | $ - | | $ 4,800.00 |
| 4200-1020 | Truck Operations & Maintenance - Tanker 25 | $ - | | $ 4,800.00 |
| 4200-1010 | Truck Operations & Maintenance - Car 21 | $ - | | $ 4,800.00 |
| 4200-1060 | Fuel for Trucks | $ 6,000.00 | $ 5,487.77 | $ 6,000.00 |
| 4200-1100 | Insurance Premium | $ 21,000.00 | $ 20,863.51 | $ 22,000.00 |
| 4200-1200 | Miscellaneous/Recognition Night | $ 2,200.00 | $ 2,488.90 | $ 2,200.00 |
| 4200-1300 | Utilities (Gas/Hydro/Water/Sewer) | $ 18,000.00 | $ 21,277.56 | $ 22,500.00 |
| 4200-1400 | Bell Canada (Dispatch Line) | $ 950.00 | $ 927.37 | $ 950.00 |
| 4200-1500 | Bell Canada (Admin Line) | $ 1,600.00 | $ 1,608.55 | $ 1,600.00 |
| 4200-1550 | Bell Mobility | $ 2,500.00 | $ 2,012.97 | $ 2,500.00 |
| 4200-1600 | Vaccination & Driver Medicals | $ 400.00 | $ 90.00 | $ 400.00 |
| 4200-1700 | Bank Service Charges | $ 660.00 | $ 684.00 | $ 660.00 |
| 4200-1750 | Ceridian Payroll | $ 2,000.00 | $ 2,125.21 | $ 2,000.00 |
| 4200-1800 | New Equipment Acquisition | $ 14,000.00 | $ 15,504.65 | $ 15,000.00 |
| 4200-1900 | TSF Bell Tower Lease to Capital | $ - | $ 9,603.25 | |
| 4200-1980 | Building Maintenance | $ 4,500.00 | $ 3,945.28 | $ 4,500.00 |
| 4200-2000 | Interest on Temporary Loans | $ 600.00 | $ 600.00 | $ 600.00 |
| 4200-2100 | Fire Hydrants | $ 7,500.00 | $ 7,500.00 | $ 7,500.00 |
| 4200-2500 | Uncollectible Accounts | $ - | $ - | |
| | **SUBTOTAL EXPENSES** | **$ 501,439.00** | **$ 500,613.63** | **$ 516,113.00** |
| 2900-0000 | Tsf Surplus to Capital Reserve | *$ 21,304.40* | $ 21,304.40 | |
| 2900-0000 | Tsf Surplus to Operating Reserve | *$ 25,000.00* | $ 25,000.00 | $ - |
| | **TOTAL EXPENDITURES** | **$ 547,743.40** | **$ 546,918.03** | **$ 516,113.00** |
| REVENUES | | | | |
| 3000-0500 | Interest on Current Account | $ 500.00 | $ 215.58 | $ 500.00 |
| 3000-0600 | Miscellaneous / Inspections | $ 13,000.00 | $ 3,605.72 | $ 5,000.00 |
| 3000-0800 | MTO / County MCV Revenue | $ 15,000.00 | $ 37,790.00 | $ 30,000.00 |
| 3000-0900 | Insurance / False Alarm Revenue | $ 10,000.00 | $ 5,335.00 | $ 6,000.00 |
| | Rec'd from Town of Shelburne Re FPO | $ 50,000.00 | $ 37,500.00 | |
| | Partial Use of Surplus to Offset 2016 | $ 25,000.00 | $ 25,000.00 | |
| | **SUBTOTAL REVENUES** | **$ 113,500.00** | **$ 109,446.30** | **$ 41,500.00** |
| 2900-0000 | Surplus/Deficit from Previous Year | *$ 21,304.40* | $ 21,304.40 | *$ (3,228.33)* |
| | **TOTAL REVENUES** | **$ 134,804.40** | **$ 130,750.70** | **$ 38,271.67** |
| **TOTAL 2016 OPERATING BUDGET** | | **$ 412,939.00** | | **$ 477,841.33** |
| | *Increase over Previous Year* | | *15.7%* | |

**THE CORPORATION OF THE TOWNSHIP OF MELANCTHON**

**DRAINAGE ENGINEER'S TENDER REPORT**

TO: Mayor White and Members of Council

FROM: Tom Pridham, P.Eng., Drainage Engineer

RE: Tender Results:
Petervale Farms Drainage Works

DATE: March 3, 2017

---

**RECOMMENDATION:**

THAT the tender for the construction of the Petervale Farms Drainage Works submitted by Hanna & Hamilton Construction Co. Ltd. in the amount of $90,328.81 including H.S.T. be accepted.

**BACKGROUND:**

Tenders for the construction of the Petervale Farms Drainage Works closed on Wednesday, March 1, 2017 at 4:00 p.m. Seven tender packages were circulated. Three bids were received as indicated on the attached Tender Opening Summary Form.

All tenders have been checked and verified for accuracy. The low bidder, Hanna & Hamilton, are very familiar with the site having completed the excavation of the temporary dewatering drain in the P. Ruigrok Estate property. Their workmanship and the co-operation shown to the affected owners has always been outstanding.

We would recommend that the tender for the construction of the Petervale Farms Drainage Works submitted by Hanna & Hamilton Construction Co. Ltd. in the amount of $90,328.81 including H.S.T. be accepted.

Prepared By,

Tom Pridham, P.Eng.
Drainage Engineer

ACT 6
MAR 16 2017

# TENDER OPENING SUMMARY FORM

**Petervale Farms Drainage Works**

**Township of Melancthon**

**File No.: D-ME-159**

**Closing Date:** **March 1, 2017 @ 4:00 p.m.**

**Tender Opening Date:** **March 2, 2017 @ 5:35 p.m.**

**Project No.: 300038259.0000**

| BIDDER | TENDER AMOUNT (Incl. HST) | CERTIFIED CHEQUE/ DEPOSIT | START DATE | SUBSTANTIAL COMPLETION DATE | BIDDER POSITION |
|---|---|---|---|---|---|
| Hanna & Hamilton Construction | $90,328.81 | ✓ | May 15, 2017 | June 15, 2017 | 1 |
| Demmans Excavating | | | | | |
| Marquardt Farm Drainage | $90,957.09 | ✓ | June 15, 2017 | July 15, 2017 | 2 |
| Staveley Construction | | | | | |
| Reeves Construction | | | | | |
| DLG Services Inc. | | | | | |
| Cedarwell Excavating | $113,046.33 | ✓ | June 1, 2017 | July 31, 2017 | 3 |
| **Engineer's Estimate** | **$88,705.00** | | | | |

# REPORT TO COUNCIL

**TO:** MAYOR WHITE AND MEMBERS OF COUNCIL

**FROM:** Wendy Atkinson, Treasurer

**SUBJECT:** 2017 Draft Budget

**DATE:** March 16, 2017

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## Background and Discussion

The budget was discussed at the Council meeting held on March 2, 2017 and Council supported the recommendation from the roads Sub-Committee that Structure 2003 and the 4th Line N.E. repairs could wait a year. The 2nd Draft Budget was presented with a 12.7% increase in the budget and a 6.4% increase to the Melancthon portion of the tax rate. The Treasurer was directed to bring back a by-law to the next meeting and the Mayor asked Council members to review the budget for the March 16th meeting.

## Financial

The major capital expenses incorporated into this budget are Bridge #15, the new roads equipment storage building and resurfacing (road(s) to be determined). A transfer of $100,000 from Development Charges has been budgeted to offset a portion of the costs of the road building. Gas Tax Revenue in the amount of $80,000 has been incorporated into the budget to offset a portion of the estimated costs of Structure 2003. The amount to be received from OCIF (formula base) is $50,000.00 and this amount is included in the budget.

As a result of some additional trimming the amount to be raised through taxation is $2,394,418.00 - an increase of $250,939 or 11.71% (for every $21,435.00 raised equals a 1% increase). Factoring in the changes in assessment the increase to the Melancthon portion of the tax rate is approximately 5.5%.

Based on this budget, the increase for every $100,000 assessment is $26.31 for Melancthon's portion of the tax rate:

i.e. - 100,000 x 2017 rate 0.505069% = $505.07
100,000 x 2016 rate 0.478755% = $478.76
$ 26.31

Tax Scenario (Melancthon rate only)

2016 House Assessed at 348,000 x 0.478755% = $1,666.07
2017 House Assessed at 350,250 x 0.505069% = $1,769.00
The increase to assessment is 0.65% and the increase in tax dollars is $102.93 or 6.2%.

Based on the above scenario a house assessed at 348,000 with no change in assessment would see an increase of $91.57 per year (348,000 x 0.505069% = $1,757.64) or 5.5%. (Melancthon rate only)

Respectfully submitted,

Wendy Atkinson

DRAFT

Schedule B

*2016 Actual-Unaudited

**Corporation of the Township of Melancthon**
**2017 Operating and Capital Budget**

| Acct. No. | Budget Expenditures | 2016 Budget | 2016 Actual | 2017 Budget |
|---|---|---|---|---|
| | | | | |
| | **General Government** | | | |
| | | | | |
| | **COUNCIL** | | | |
| 01-5001-1010 | Salaries, Meetings | 65,000.00 | 64,247.46 | 66,000.00 |
| 01-5001-1022 | Training | 500.00 | | 250.00 |
| 01-5001-1025 | Receiver General | 2,000.00 | 1,253.92 | 1,500.00 |
| 01-5001-1030 | EHT | 1,200.00 | 835.12 | 1,000.00 |
| 01-5001-1070 | Mileage | 2,000.00 | 1,317.00 | 1,800.00 |
| 01-5001-1080 | Conferences/Conventions/Seminars | | 45.00 | 2,500.00 |
| 01-5001-1090 | Meals | 1,000.00 | 583.50 | 1,000.00 |
| 01-5001-2060 | Memberships | | | |
| 01-5001-2025 | Council Furniture | 3,000.00 | 2,802.96 | |
| 01-5001-2190 | Miscellaneous | 500.00 | 385.60 | 500.00 |
| | **Sub-total** | **75,200.00** | **71,470.56** | **74,550.00** |
| | | | | |
| | **ADMINISTRATION** | | | |
| 01-5002-1010 | Wages, Vacation Pay, Unused Sick Pay | 220,000.00 | 209,898.61 | 235,000.00 |
| 01-5002-1020 | Benefits | 13,500.00 | 13,380.76 | 16,000.00 |
| 01-5002-1022 | Training | 1,200.00 | 537.70 | 1,500.00 |
| 01-5002-1024 | Seminars | 500.00 | | |
| 01-5002-1025 | Receiver General | 12,000.00 | 11,161.15 | 12,000.00 |
| 01-5002-1026 | Meetings | 2,000.00 | 1,830.00 | 2,000.00 |
| 01-5002-1030 | EHT | 4,500.00 | 4,400.22 | 4,600.00 |
| 01-5002-1040 | WSIB | 7,100.00 | 6,241.94 | 7,000.00 |
| 01-5002-1064 | RRSP/OMERS Township Cont. | 19,300.00 | 16,278.00 | 21,500.00 |
| 01-5002-1070 | Mileage | 1,500.00 | 1,193.50 | 1,500.00 |
| 01-5002-1080 | Conferences | 1,500.00 | | 2,500.00 |
| 01-5002-2025 | Office Furniture | 1,500.00 | | 500.00 |
| 01-5002-2010 | Office Supplies | 5,800.00 | 5,032.69 | 5,800.00 |
| 01-5002-2020 | Postage | 4,700.00 | 4,821.10 | 5,000.00 |
| 01-5002-2030 | Office Equipment | 3,600.00 | 3,480.88 | 3,600.00 |
| 01-5002-2035 | Computer Program Updates | 12,000.00 | 8,222.48 | 14,000.00 |
| 01-5002-2040 | Advertising | 500.00 | 955.73 | 1,500.00 |
| 01-5002-2050 | Audit | 22,000.00 | 22,896.00 | 22,000.00 |
| 01-5002-2060 | Memberships | 3,000.00 | 2,661.29 | 3,000.00 |
| 01-5002-2070 | Heating | 2,000.00 | 1,387.41 | 2,000.00 |
| 01-5002-2080 | Hydro | 4,500.00 | 4,861.05 | 5,000.00 |
| 01-5002-2090 | Telephone | 2,500.00 | 2,391.87 | 2,500.00 |
| 01-5002-2094 | Internet | 1,500.00 | 1,083.13 | 1,300.00 |
| 01-5002-2095 | Website Maintenance | 6,500.00 | 2,148.18 | 3,000.00 |
| 01-5002-2100 | Professional Fees - Legal | 10,000.00 | 1,388.95 | 10,000.00 |
| 01-5002-2101 | Professional Fees - Biosolids | | | |
| 01-5002-2103 | Health and Safety Services | 4,900.00 | | 5,000.00 |
| 01-5002-2104 | Municipal Emergency Readiness Fund | 10,000.00 | 25,126.32 | |
| 01-5002-2110 | Insurance | 35,000.00 | 35,000.00 | 35,000.00 |
| 01-5002-2120 | Elections | | | 5,000.00 |
| 01-5002-2162 | Bldg Maintenance | 2,500.00 | 3,914.26 | 13,000.00 |
| 01-5002-2163 | Office Cleaning | 1,100.00 | 750.00 | 1,100.00 |
| 01-5002-2164 | Landscaping & Grass Cutting | 750.00 | 1,420.51 | 850.00 |
| 01-5002-2165 | Water Sampling | 100.00 | 54.06 | 100.00 |
| 01-5002-2190 | Other/Miscellaneous | 2,000.00 | 2,164.46 | 2,000.00 |
| 01-5002-2199 | Volunteer Appreciation Night | 250.00 | 93.53 | 200.00 |
| 01-5002-2200 | Petty Cash | 500.00 | 194.31 | 500.00 |
| 01-5002-4010 | Tax Write-Offs | 70,000.00 | 119,933.50 | 50,000.00 |
| 01-5002-4012 | Uncollectable Debts | | 536.63 | |
| 01-5002-4015 | Penny Rounding | | (0.11) | |
| 01-5002-4030 | Bank Charges | 550.00 | 513.44 | 550.00 |
| 01-5002-6135 | Grants to Others | 1,500.00 | 1,450.00 | 1,500.00 |
| 01-5002-6160 | Tax Refund | | (600.00) | |
| 01-5002-7011 | Loan for Municipal Expansion | 13,057.00 | 13,056.66 | 13,057.00 |
| | **Sub-total** | **505,407.00** | **529,860.21** | **510,657.00** |
| | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | **PROTECTION TO PERSONS/PROPERTY** | | | | | | |
| 01-5003-6010 | Mulmur Melancthon FD | | 85,534.00 | | 88,438.90 | | 95,765.00 |
| 01-5003-6020 | Shelburne and District FD | | 78,000.00 | | 72,176.36 | | 87,500.00 |
| 01-5003-6030 | Township of Southgate FD - Operating | | 23,860.00 | | 23,860.00 | | 24,000.00 |
| 01-5003-6031 | Township of Southgate FD - Capital | | 7,000.00 | | 7,000.00 | | 7,000.00 |
| 01-5004-3050 | Policing | | 430,380.00 | | 427,054.75 | | 431,120.00 |
| 01-5004-3051 | Policing - Proposal | | | | | | 15,000.00 |
| 01-5004-3055 | Policing - ESO | | 1,100.00 | | 152.64 | | 500.00 |
| 01-5004-3052 | Policing - RIDE | | 6,676.00 | | | | 6,643.00 |
| | Police Services Board | | | | | | 500.00 |
| 01-5004-6040 | Nottawasaga Valley CA | | 10,278.00 | | 10,277.62 | | 11,263.00 |
| 01-5004-6050 | Grand River CA | | 18,872.00 | | 18,872.00 | | 19,694.00 |
| 01-5004-6055 | SWP Collaboration Agreement | | | | 2,035.20 | | |
| 01-5013-6140 | Livestock Claims | | 10,000.00 | | 3,348.11 | | 5,000.00 |
| 01-5004-6150 | Animal Control | | 7,000.00 | | 3,170.14 | | 5,000.00 |
| 01-5004-6155 | By-law Enforcement | | 2,500.00 | | 1,755.00 | | 25,000.00 |
| 01-5006-3025 | Street Lights LED | | 5,500.00 | | 5,248.50 | | 5,500.00 |
| | **Sub-total** | | **686,700.00** | | **663,389.22** | | **739,485.00** |
| | | | | | | | |
| | **ROADWAYS** | | | | | | |
| | Road Budget | | 2,248,208.00 | | 1,813,270.78 | | 2,072,658.00 |
| | Transfer to Reserves | | | | | | |
| | **Sub-total** | | **2,248,208.00** | | **1,813,270.78** | | **2,072,658.00** |
| | | | | | | | |
| | **ENVIRONMENTAL SERVICES** | | | | | | |
| | | | | | | | |
| 01-5007-2171 | Levelling | | 5,000.00 | | | | |
| 01-5007-2105 | Landfill Study/Monitoring | | 24,500.00 | | 22,081.92 | | 22,100.00 |
| 01-5007-2190 | Miscellaneous | | | | 393.62 | | |
| 01-5007-7001 | Rehabilitation Reserve | | 10,000.00 | | 10,000.00 | | 10,000.00 |
| | **Sub-total** | | **39,500.00** | | **32,475.54** | | **32,100.00** |
| | | | | | | | |
| | **RECREATION** | | | | | | |
| 01-5010-5055 | Corbetton Park | | 3,630.00 | | | | 3,630.00 |
| | Corbetton Park Legacy Fund | | | | | | 10,000.00 |
| 01-5010-6060 | Horning's Mills Park | | 4,700.00 | | 4,682.93 | | 4,700.00 |
| 01-5010-6065 | Horning's Mills Community Hall | | 2,000.00 | | 1,661.23 | | 5,000.00 |
| 015010-6066 | Horning's Mills Heritage Project | | 300.00 | | | | 300.00 |
| 01-5010-6070 | Centre Dufferin Recreation Complex | | 25,750.00 | | 25,750.00 | | 45,328.00 |
| 01-5010-6080 | Dundalk Community Centre | | 14,000.00 | | 14,000.00 | | 14,000.00 |
| 01-5010-6100 | North Dufferin Community Centre | | 22,500.00 | | 17,500.00 | | 17,500.00 |
| 01-5010-7010 | Mulmur-Melancthon Recreation Capital | | | | 5,000.00 | | 5,000.00 |
| 01-5016-8902 | Horning's Mills Cemetery | | 2,500.00 | | 2,500.00 | | 12,500.00 |
| 01-5016-8904 | St. Paul's Cemetery | | 1,000.00 | | 950.00 | | 1,000.00 |
| | | | | | | | |
| | **Sub-total** | | **76,380.00** | | **72,044.16** | | **118,958.00** |
| | | | | | | | |
| | **LIBRARY** | | | | | | |
| 01-5011-6110 | Shelburne Library | | 47,263.00 | | 47,263.00 | | 50,393.00 |
| 01-5011-6120 | Dundalk Library | | 7,680.00 | | 7,680.00 | | 7,900.00 |
| | **Sub-total** | | **54,943.00** | | **54,943.00** | | **58,293.00** |
| | | | | | | | |
| | **PLANNING & DEVELOPMENT** | | | | | | |
| 01-5012-2100 | Professional/Legal Fees | | 50,000.00 | | 49,479.66 | | 46,000.00 |
| 01-5012-2108 | New Official Plan | | 10,000.00 | | 2,603.77 | | 5,000.00 |
| 01-5012-2110 | County Official Plan | | | | | | |
| 01-5012-2310 | Dufferin Wind Power | | | | 2,512.25 | | |
| 01-5012-2109 | New Zoning By-law | | 20,000.00 | | | | |
| 01-5012-2115 | Strategic Plan | | | | | | 24,100.00 |
| | **Sub-total** | | **80,000.00** | | **54,595.68** | | **75,100.00** |
| | | | | | | | |
| | | | | | | | |
| | **DRAINAGE** | | | | | | |
| 01-5009-3060 | Drainage Superintendent | | 50,000.00 | | 51,039.26 | | 50,880.00 |
| 01-5015-0100 | Tile Drainage Principal & Int Pymts | | | | 10,094.99 | | |
| | | | | | | | |
| | **Sub-Total** | | **50,000.00** | | **61,134.25** | | **50,880.00** |
| | | | | | | | |
| | **RESERVE** | | | | | | |
| | Transfer to Working Capital Reserves | | | | | | |
| 01-5002-5041 | Tax Rate Stabilization | | **25,000.00** | | **25,000.00** | | |
| 01-5002-5042 | Special Reserve Fund Emergency Relief | | | | | | **5,000.00** |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | **TOTAL EXPENDITURES** | | **3,841,338.00** | | **3,378,183.40** | | **3,737,681.00** |

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**Corporation of the Township of Melancthon**
**2017 Operating and Capital Budget**

*2016 Actual-Unaudited

| Acct No. | REVENUE | 2016 Budget | 2016 Actual | 2017 Budget |
|---|---|---|---|---|
| | | | | |
| | **Opening Surplus/(Deficit)** | 415,000.00 | 285,323.00 | 50,000.00 |
| | | | | |
| | **TAXATION** | | | |
| 01-4001-0700 | Supplementary Taxation | 50,000.00 | 102,622.43 | 50,000.00 |
| 01-4001-0800 | Capping Adjustments | | | |
| | | | | |
| | **GRANTS** | | | |
| 01-4003-0100 | Payment in Lieu | 900.00 | 791.59 | 750.00 |
| 01-4004-0110 | Small Business Job Credit | | 1,656.45 | 1,752.14 |
| 01-4004-0150 | OMPF | 176,300.00 | 176,300.00 | 162,000.00 |
| 01-4004-0300 | RIDE Grant | 6,676.00 | -97.52 | 6,643.00 |
| 01-4004-0172 | Court Security & Prisoner Transportation | 1,300.00 | | 2,117.00 |
| 01-4004-0500 | Library Grant | 4,452.00 | 4,452.00 | 4,452.00 |
| 01-4004-0156 | OCIF Funding (Formula Component) | 25,000.00 | 25,000.00 | 50,000.00 |
| 01-4004-0700 | Ontario Aggregate Lic. Fee | 38,000.00 | 52,556.86 | 45,000.00 |
| 01-4030-0100 | Drainage Superintendent | 25,440.00 | -3,360.29 | 25,440.00 |
| 01-4004-0220 | Dufferin County Emergency Readiness | | 10,000.00 | |
| | | | | |
| | **ADMINISTRATION** | | | |
| 01-4010-0100 | Tax Certificates | 4,000.00 | 3,400.00 | 3,400.00 |
| 01-4010-0110 | Tax Statement/Duplicate Tax Bill | 300.00 | 370.00 | 300.00 |
| 01-4010-0200 | Building Permit Approval | 3,000.00 | 3,010.00 | 4,500.00 |
| 01-4010-0250 | Site Alteration Permit Approval | | | |
| 01-4010-0300 | NSF Cheque Charge | 210.00 | 140.00 | 140.00 |
| 01-4010-0400 | Photocopies | 25.00 | 43.50 | 30.00 |
| 01-4015-0100 | Dog Licenses | 2,000.00 | 1,770.00 | 1,800.00 |
| 01-4066-0000 | Lottery Licenses | | 40.00 | |
| 01-4040-0100 | Livestock Claim Grants | 9,000.00 | 2,963.11 | 5,000.00 |
| 01-4064-0000 | Business Licenses | 300.00 | 300.00 | 300.00 |
| 01-4065-0000 | Trailer Licenses | | 120.00 | |
| | | | | |
| | **FIRE** | | | |
| 01-4012-0100 | Fire Revenue - invoiced Fire Calls | | | |
| 01-4012-0300 | Fire Permit Fee | 3,200.00 | 4,330.00 | 3,500.00 |
| | | | | |
| | **ROADS** | | | |
| 01-4020-0100 | Road Fees | 500.00 | 1,331.26 | 500.00 |
| 01-4020-0110 | Roads Misc Fees | | 251.89 | |
| 01-4020-0125 | Entrance Permits | 800.00 | 1,200.00 | 1,000.00 |
| 01-4020-0130 | Wide Load Permits | 600.00 | 560.00 | 1,000.00 |
| 01-4020-0200 | Culverts | | | |
| 01-4020-0140 | Bretton Estates Snow Plowing | 900.00 | 900.00 | 900.00 |
| 01-4020-0500 | Shelburne road Agreement | 5,000.00 | 5,072.50 | 5,000.00 |
| 01-4020-0210 | Road Crossings | | 2,000.00 | 1,000.00 |
| 01-4020-0700 | Transfer from Development Charge (building) | 100,000.00 | | 100,000.00 |
| 01-4004-0703 | Transfer from Gas Tax | 100,000.00 | 100,000.00 | 80,000.00 |
| | | | | |
| | | | | |
| | **PLANNING** | | | |
| 01-4035-0100 | Official Plan Amendment | | | |
| 01-4035-0350 | Zoning By-law Amendment | 3,500.00 | 4,000.00 | 4,000.00 |
| 01-4035-0300 | Consent Applications | 4,000.00 | 4,800.00 | 4,800.00 |
| 01-4035-0325 | Minor Variance | 800.00 | 800.00 | 800.00 |
| 01-4035-0200 | Zoning Requests | 1,870.00 | 2,120.00 | 1,955.00 |
| 01-4035-0360 | Change of Use Certificate Applications | | 1,000.00 | |
| 01-4035-0375 | Pre-Application Consultation | | 500.00 | |
| 01-4035-0500 | Professional Services Reimbursement | | 18,726.70 | |
| 01-4035-0560 | Dufferin Wind Power Reimbursement | | | |
| | | | | |
| | **OTHER** | | | |
| 01-4050-0100 | Miscellaneous Revenue | 1,000.00 | 410.31 | 500.00 |
| 01-4050-0125 | CHD Community Contribution | 309,000.00 | 309,000.00 | 309,000.00 |
| 01-4050-0130 | Plateau Community Contribution | 30,598.43 | 30,598.43 | 33,984.00 |
| 01-4050-0135 | DWP Community Contribution | 243,638.00 | 248,510.50 | 245,000.00 |
| 01-4050-0200 | Penalties and Interest on Taxes | 100,000.00 | 102,845.34 | 100,000.00 |
| 01-4050-0300 | Interest on Deposits | 8,000.00 | 11,271.72 | 9,000.00 |
| 01-4050-0400 | POA | 20,000.00 | 22,564.29 | 25,000.00 |
| 01-4050-0450 | False Alarms - OPP | | | |
| 01-4025-0220 | Electronic Recycling Revenue | | 128.55 | 150.00 |
| 01-4077-0000 | Land Rental | 2,550.00 | 2,550.00 | 2,550.00 |
| 01-4002-0100 | Tile Drains | | 10,094.99 | |
| | | | | |
| | | | | |
| | **Sub-Total** | 1,697,859.43 | 1,552,967.61 | 1,343,263.14 |
| | **Expenditures** | 3,841,338.00 | 3,378,183.40 | 3,737,681.00 |
| | | | | |
| | | | | |
| | **Amount to be raised through Taxation** | -2,143,478.57 | | -2,394,417.86 |
| | | | | |
| | | | | |

| | **Taxation** | | | | |
|---|---|---|---|---|---|
| 01-4001-0100 | Residential | | | | 1,657,491.12 |
| 01-4001-0200 | Farmland | | | | 152,043.41 |
| 01-4001-0300 | Commercial and Industrial | | | | 318,182.25 |
| 01-4001-0500 | Managed Forests | | | | 8,432.93 |
| 01-4001-0600 | Pipeline | | | | 7,329.45 |
| | | | | | |
| | | | | | 2,143,479.16 |

**Corporation of the Township of Melancthon**
**2017 Operating and Capital ROAD BUDGET**

***2016 Actual-Unaudited**

| Acct. No. | ADMINISTRATION | 2016Budget | 2016 Actual | 2017 Budget |
|---|---|---|---|---|
| 01-5005-1010 | Salaries and Wages | 380,000.00 | 350,535.92 | 385,000.00 |
| 01-5005-1025 | Receiver General, EHT & WSIB | 40,000.00 | 40,318.82 | 42,000.00 |
| 01-5005-1020 | Benefits | 23,500.00 | 19,467.18 | 25,000.00 |
| 01-5005-1060 | Short Term Disability | | | |
| 01-5005-1064 | RRSP/OMERS | 18,750.00 | 16,344.87 | 26,500.00 |
| 01-5005-1070 | Mileage | 200.00 | 8.00 | 100.00 |
| 01-5005-1022 | Staff Training and Seminars | 2,000.00 | 1,266.21 | 2,000.00 |
| 01-5005-2010 | Office Supplies | 150.00 | 63.81 | 150.00 |
| 01-5005-2035 | Computer Program Updates | 250.00 | 138.85 | 250.00 |
| 01-5005-2036 | GPS Monthly Tracking Expense | 6,000.00 | 5,329.56 | 6,000.00 |
| 01-5005-2112 | Asset Management Plan | 23,000.00 | 19,782.05 | 10,000.00 |
| 01-5005-3105 | Bridge Study/Inspections | | | 16,800.00 |
| | | | | |
| | **MISCELLANEOUS** | | | |
| 01-5005-2070 | Utilities - Heat | 10,000.00 | 7,022.65 | 10,000.00 |
| 01-5005-2080 | Utilities - Hydro | 6,600.00 | 7,516.36 | 8,000.00 |
| 01-5005-2090 | Telephone | 1,100.00 | 1,058.83 | 1,150.00 |
| 01-5005-2091 | Mobile Phone | 2,100.00 | 715.29 | 1,000.00 |
| 01-5005-2040 | Advertising | 750.00 | 71.23 | 750.00 |
| 01-5005-2041 | Signs | 7,500.00 | 3,602.88 | 5,000.00 |
| 01-5005-2110 | Insurance | 45,000.00 | 45,000.00 | 46,000.00 |
| 01-5005-2100 | Legal Fees | 2,000.00 | | 2,000.00 |
| 01-5005-2050 | Audit | 15,000.00 | | 15,000.00 |
| 01-5005-2060 | Memberships | 100.00 | 90.40 | 100.00 |
| 01-5005-2165 | Materials and Supplies/Stock | 8,800.00 | 5,457.14 | 8,800.00 |
| 01-5005-2166 | Coveralls | 6,200.00 | 8,690.03 | 6,500.00 |
| 01-5005-3000 | Services and Rents/Misc | 5,000.00 | | 5,000.00 |
| 01-5005-2103 | Health & Safety Services | 4,900.00 | | 5,000.00 |
| 01-5005-2104 | Health & Safety Materials/Supplies | 2,000.00 | 1,298.46 | 3,000.00 |
| 01-5005-2162 | Building Maintenance | 10,000.00 | 6,228.41 | 10,000.00 |
| 01-5005-2163 | Sand Dome Repairs | 10,000.00 | 5,362.18 | |
| 01-5005-2185 | Oil Separator Clean Out | 2,000.00 | 203.52 | 2,000.00 |
| 01-5005-2192 | Shop Tools | 2,500.00 | 896.15 | 2,000.00 |
| 01-5005-2190 | Miscellaneous | 1,100.00 | 547.16 | 1,000.00 |
| 01-5005-3800 | Contract Work | 2,500.00 | | 2,000.00 |
| | | | | |
| | | | | |
| | | | | |
| | **EQUIPMENT** | | | |
| 01-5005-2150 | Fuel - Clear | 46,000.00 | 40,581.20 | 45,000.00 |
| 01-5005-2155 | Fuel - Dyed | 30,000.00 | 23,355.05 | 30,000.00 |
| 01-5005-3070 | Fuel - Patrol Trucks | 10,000.00 | 8,624.87 | 10,000.00 |
| 01-5005-2180 | Oil - Trucks and Grader | 3,500.00 | 2,863.02 | 4,000.00 |
| 01-5005-3071 | TR#1 - Repairs | 2,500.00 | 1,184.44 | 2,500.00 |
| 01-5005-3073 | TR#2 - Repairs | 15,000.00 | 9,397.77 | 15,000.00 |
| 01-5005-3074 | TR#3 - Repairs | 10,000.00 | 7,427.52 | 10,000.00 |
| 01-5005-3075 | TR#4 - Repairs | 20,000.00 | 5,495.38 | 15,000.00 |
| 01-5005-3076 | TR#5 - Repairs | 20,000.00 | 11,517.55 | 20,000.00 |
| 01-5005-3077 | TR#6 - Repairs | 10,000.00 | 601.77 | 1,000.00 |
| 01-5005-3069 | TR#7 - Repairs | 2,500.00 | 4,444.90 | 5,000.00 |
| 01-5005-3079 | GR#1 - CAT - Repairs | 10,000.00 | 10,217.86 | 15,000.00 |
| 01-5005-3080 | GR#2 - Repairs | 15,000.00 | 5,063.09 | 15,000.00 |
| 01-5005-3081 | Backhoe Repairs | 5,000.00 | 442.29 | 2,500.00 |
| 01-5005-3082 | Loader | 2,500.00 | 400.43 | 2,500.00 |
| 01-5005-3083 | John Deere Mower | | | |
| 01-5005-3084 | Power Washer | 1,000.00 | 980.51 | 1,000.00 |
| 01-5005-3085 | Chain Saw | 1,500.00 | 38.13 | 1,000.00 |
| 01-5005-3086 | Roadside Mower | 1,000.00 | 6.25 | 1,000.00 |
| 01-5005-3500 | Winter Control-Plow & Wing Parts | 15,000.00 | 11,856.43 | 15,000.00 |
| 01-5005-7015 | John Deere Grader Loan | 32,650.00 | 32,649.36 | 32,650.00 |
| 01-5005-2191 | Radio and Truck Licenses | 10,000.00 | 9,358.00 | 10,000.00 |
| 01-5005-2195 | Radio Maintenance & Repair | 1,200.00 | 547.47 | 1,000.00 |
| 01-5005-3060 | Water Tank | | | |
| | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | **NEW EQUIPMENT** | | | | | | |
| | | | | | | | |
| 01-5005-7010 | Vehicles | | 15,000.00 | | 37,404.17 | | |
| | Generator | | | | | | 11,000.00 |
| | Trailer for lawn mower | | | | | | 3,000.00 |
| | | | | | | | |
| | **BRIDGES, CULVERTS, DRAINS** | | | | | | |
| 01-5005-3100 | Bridge & Culvert Mtce | | 14,000.00 | | 3,050.16 | | 20,000.00 |
| | Bridge #15 | | | | | | 218,000.00 |
| 01-5005-3175 | Culvert 2027 | | 6,250.00 | | 4,343.28 | | |
| 01-5005-3149 | Culvert 2010 | | 200,000.00 | | 102,089.54 | | |
| 01-5005-3164 | Culvert 2020 | | 125,000.00 | | 125,433.39 | | |
| 01-5005-3168 | Culvert 2024 | | 125,000.00 | | 127,360.73 | | |
| 01-5005-3850 | Drain Maintenance | | 50,000.00 | | 41,727.57 | | 40,000.00 |
| 01-5005-7021 | Culvert 2027 Loan Payment | | 40,908.00 | | 40,907.52 | | 40,908.00 |
| | | | | | | | |
| | **ROADSIDE** | | | | | | |
| 01-5005-3215 | Grass Mowing & Weed Spryaing | | 5,000.00 | | 2,154.30 | | 5,000.00 |
| 01-5005-3205 | Brushing - Tree Trim and Removal | | 12,000.00 | | 9,142.03 | | 12,000.00 |
| 01-5005-3206 | Ditching | | 15,000.00 | | 1,221.12 | | 15,000.00 |
| 01-5005-3322 | Catch Basins | | 1,000.00 | | 1,175.33 | | |
| 01-5005-3610 | Guide Posts & Hardware | | 500.00 | | | | 500.00 |
| 01-5005-3315 | Shoulder Maintenance | | 3,000.00 | | 2,453.07 | | 3,000.00 |
| | | | | | | | |
| | **HARDTOP** | | | | | | |
| 01-5005-3300 | Hardtop Resurfacing | | | | | | |
| 01-5005-3310 | Cold Mix, Patching & Spray Patching | | 5,000.00 | | 4,294.20 | | 5,000.00 |
| 01-5005-3305 | Patch Paving | | 200,000.00 | | 178,905.33 | | 200,000.00 |
| 01-5005-3320 | Sweeping, Flushing, Cleaning | | 5,000.00 | | 4,294.27 | | 5,000.00 |
| | | | | | | | |
| | **LOOSETOP** | | | | | | |
| 01-5005-3400 | Loosetop Maintenance | | | | | | |
| 01-5005-3700 | Clearview Townline | | 1,200.00 | | 721.38 | | 1,000.00 |
| 01-5005-3750 | Townlines | | 1,000.00 | | 623.49 | | 1,000.00 |
| 01-5005-3210 | Gravel Resurfacing | | 250,000.00 | | 230,160.88 | | 250,000.00 |
| 01-5005-3410 | Dust Layer (Calcium Chloride) | | 100,000.00 | | 92,357.78 | | 125,000.00 |
| | | | | | | | |
| | **WINTER CONTROL** | | | | | | |
| 01-5005-3510 | Sand and Salt | | 40,000.00 | | 44,698.70 | | 50,000.00 |
| 01-5005-3505 | Snow Removal/Blowing | | 5,000.00 | | 661.44 | | 5,000.00 |
| | | | | | | | |
| | **ROAD IMPROVEMENTS** | | | | | | |
| 01-5005-3910 | Clean Up 7th Line SW | | | | 7,801.67 | | |
| | Horning's Mills shoulders | | | | | | 50,000.00 |
| | | | | | | | |
| 01-5005-5030 | **REPLACEMENT EQUIPMENT RESERVE** | | | | | | |
| | | | | | | | |
| 01-5005-2160 | **New Building** | | 125,000.00 | | 16,220.18 | | 110,000.00 |
| | | | | | | | |
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| | | | | | | | |
| | **TOTAL BUDGET** | | **2,248,208.00** | | **1,813,270.78** | | **2,072,658.00** |

**THE CORPORATION OF THE TOWNSHIP OF MELANCTHON**

**BY-LAW NUMBER -2017**

BEING A BY-LAW TO ADOPT THE ESTIMATES OF ALL SUMS REQUIRED DURING THE YEAR AND TO STRIKE THE RATES OF TAXATION, AND TO FURTHER PROVIDE FOR PENALTY AND INTEREST IN DEFAULT OF PAYMENT THEREOF FOR THE YEAR 2017

**WHEREAS** the Council of the Corporation of the Township of Melancthon has, in accordance with the Municipal Act, 2001, S.O. 2001, Chapter 25 as amended, Section 290 (1)(2)(3)(4) and Section 291 (1) considered the estimates of the Municipality for the year 2017;

**AND WHEREAS** pursuant to the County of Dufferin By-law No. 2017-04 , the County of Dufferin passed a by-law to set tax ratios and to set tax rate reductions for prescribed property subclasses for county purposes and lower tier municipal purposes;

**AND WHEREAS** the tax ratios established the relative amount of taxation to be borne by each property class and have been set for the taxation year 2017 under the authority of the Municipal Act, 2001, S.O. 2001, Chapter 25 Section 308(5) as follows:

| | |
|---|---|
| Residential Class is | 1.0000 |
| Multi-residential Class is | 2.6802 |
| Commercial Class is | 1.2200 |
| Industrial Class is | 2.1984 |
| Pipeline Class is | 0.8421 |
| Farmland Class is | 0.2500 |
| Managed Forest Class is | 0.2500 |

**AND WHEREAS** all property assessment rolls on which the 2017 taxes are to be levied have been returned and revised pursuant to the provision of the Assessment Act, R.S.O. 1990, c.A.31, as amended (hereinafter referred to as the "Assessment Act") subject to appeals at present before the Assessment Review Board, the Ontario Municipal Board and the District Court;

**AND WHEREAS** the "Residential/Farm Assessment", "Multi-Residential Assessment", "Commercial Assessment", "Industrial Assessment", "Pipeline Assessment", "Farmlands Assessment" and "Managed Forests Assessment" and the applicable subclasses pursuant to Section 7 of the Assessment Act, as amended by the Fair Municipal Finance Act, 1997 and Regulations thereto, have been determined on the basis of the aforementioned property assessment rolls and are detailed on Schedule "A" attached hereto and which forms part hereof;

**AND WHEREAS** pursuant to the County of Dufferin By-law 2017-05, the County of Dufferin passed a by-law to adopt the estimates of all sums required by the County of Dufferin for the purposes of the County and to provide a Levy on area municipalities;

**AND WHEREAS** the Province of Ontario has regulated all education tax rates for 2017; and hereby adopted to be applied against the whole of the assessment for real property as set out in Schedule D

**AND WHEREAS** the Council agrees that it has not applied any changes to the 2017 Annual Estimates that would arise from the new PSAB 3150 Accounting rules for the 2017 year.

**NOW THEREFORE** the Council of the Corporation of the Township of Melancthon enacts as follows:

**THAT** the Corporation of the Township of Melancthon adopt the sum of Two Million, Three Hundred and Ninety-Four Thousand, Four Hundred and Eighteen Dollars ($2,394,418) as detailed in Schedule "B" attached hereto and which forms part hereof as the estimate of the Property Tax Levy required during the year 2017for general purposes of the Corporation of the Township of Melancthon.

**THAT** for the year 2017 in the Corporation of the Township of Melancthon, the lower tier municipalities shall levy upon Residential/Farm Assessment, Multi-Residential Assessment, Commercial Assessment, Industrial Assessment, Pipeline Assessment, Farmlands Assessment and Managed Forests Assessment and applicable subclasses the tax rates for Township purposes set out in Schedule "C" attached hereto and which forms part hereof.

**THAT** tax rates for the Township of Melancthon portion of the tax bill are hereby adopted to be applied against the whole of the assessment for real property as set out in Schedule "D".

1. The taxes shall become due and payable in two instalments:

   First installment due and payable on August 24, 2017
   Second installment due and payable on November 23, 2017

2. A penalty at the rate of 1.25% will be charged on the first day of default and on the first day of each calendar month thereafter in which default continues, on all unpaid instalments of taxes until December 31, 2017 after which the interest rates of 1.25% per month for each month or fraction thereof will be added.

3. The Collector may mail or cause the same to be mailed to the resident or place of business of such person indicated on the last revised assessment roll, a written or printed notice specifying the amount of taxes payable.

4. The taxes are payable at the Municipal Office, 157101 Highway 10, Melancthon, Ontario, L9V 2E6, the Toronto Dominion Bank or Credit Union in Shelburne, the CIBC or Credit Union in Dundalk, by mail, or by telephone/internet banking.

5. In the event that the Provincial OPTA system does not have the necessary data to provide on Commercial, Industrial and Multi-Residential tax capping to permit processing tax bills for these installment dates, then the Treasurer is authorized to process tax bills for the remaining tax classes and to establish later tax installment due date(s) for the Commercial, Industrial and Multi-Residential tax classes on a separate bill.

This by-law shall come into force and effect upon the date of the final reading thereof.

**By-law read a first and second time this 16th day of March, 2017.**

**By-law read a third time and passed this 16th day of March, 2017.**

..... .....

Mayor Clerk

**BY-LAW NO. 6 - 2017**

**TOWNSHIP OF MELANCTHON**

**PETERVALE FARMS DRAINAGE WORKS**

A By-law to provide for a drainage works in the Township of Melancthon in the County of Dufferin.

Whereas the requisite number of owners have petitioned the Council of the Township of Melancthon in the County of Dufferin in accordance with the provisions of the **Drainage Act**, R.S.O. 1990, requesting that the following lands be drained by a Drainage Works:

Pt. Lots 266, 267 & 268, Concession 2 S.W.

And whereas the Council of the Township of Melancthon in the County of Dufferin has procured a report made by R. J. Burnside & Associates Limited. The report is attached hereto and forms part of this by-law.

And whereas the estimated total cost of constructing the drainage works is $120,000.00.

And whereas the Council of the Township of Melancthon pursuant to the Drainage Act, R.S.O. 1990, enact as follows:

1. The report dated December 21, 2016 and attached hereto as Schedule A is hereby adopted and the drainage works as therein indicated and set forth is hereby authorized and shall be completed in accordance therewith.

2. The Corporation of the Township of Melancthon may borrow on the credit of the Corporation the amount of $120,000.00 being the amount necessary for construction of the drainage works.

3. A special rate shall be levied upon the lands as set forth in the assessment schedule included in Schedule A to the by-law to be collected in the same manner as other taxes are collected.

4. All assessments are payable in the same year as the assessment is imposed.

5. This by-law comes into force on the passing thereof and may be cited as the "Petervale Farms Drainage Works By-law".

First Reading Feb 2, 2017

Second Reading Feb 2, 2017

Provisionally adopted this 2nd day of Feb, 2017

Mayor: _____

CAO/Clerk: _____

Third Reading _____

Enacted this _____ day of _____, 2017

Mayor: _____

CAO/Clerk: _____

# Connect to Innovate Program

## Innovation, Science and Economic Development Canada

March 06, 2017

packetworks

# Connect To Innovate

****

# Packet-Tel Corp.

****

# Township of Melancthon

March 06, 2017

packetworks

# Who is Packet-tel Corp.?

- Packet-tel Corp. (o/a “Packetworks”) is a privately owned, Waterloo, Ontario based telecom company
- Packetworks recently celebrated it’s 20’th year in business.
- Recognized by CRTC as non-dominant Canadian Carrier
- ISP, CLEC (Competitive Local Exchange Carrier (2017)) and an Exempt BDU (Broadcast Distribution Undertaking)
- Interconnected with national and regional carriers at 151 Front St., Toronto

packetworks

# Packetworks Management Team

- John Fagg, Chairman/CEO. Founder and Owner of Packet-tel Corp. Extensive business experience through operating, managing in a wide variety of industries.
- Mike Andrews, President. Telecom career spanning 40 years of operational and management experience in telephone, cable TV, Internet and utility construction industries. Former President and CEO of publicly traded Amtelecom Income Fund and municipally owned Bruce Telecom.
- Sorin Chiorean, CTO. Over 25 years of experience designing and managing complex IT networks and supervising diverse technical support teams. Masters in Computer Science and is Cisco Certified Network Professional (CCNP).
- Graham Brown, Director Sales . Experienced in launching new products and product extensions into highly competitive markets. Prior to joining Packet-Tel, ran several business units in pharmaceutical companies including Bristol Myers Squibb and Baxter and lead the Ontario Sales Team at Trudell Medical Marketing Ltd.
- Robert Musty, Director Community Development (Contract).

packetworks

# The Packetworks Model

- We have been designing, building and managing wireless and fibre based broadband networks since 1996.
- Packetworks utilizes wholesale connections from larger carriers to tie business based clients to our managed network.
- Packetworks strategically connects to existing 3’rd party POPs (Bell, Rogers, EastLink, etc.) and builds out from there with our own fibre optic and wireless distribution (last mile) networks to provide fast, reliable and cost-effective managed networking solutions to business customers throughout Southwestern Ontario.

packetworks

# Packetworks Fibre Networks

- First significant fibre optic network completed through a Public-Private-Partnership effort with the Town of Tillsonburg under Ontario Rural Connections Broadband Program in 2012.
  - Town of Tillsonburg provided interest free loan repayable over 10 years
  - Network serves the business and industrial areas of Tillsonburg with Gbit high speed Internet and voice services
  - Backbone extension completed in 2015 to nearby rural community of Courtland
  - Now over 30 km of fibre network deployed in the region
- Packetworks also has business focused fibre networks in Region of Waterloo, Grey County
- Client base includes public and private sector such as Hospitals, School Boards, Municipalities, small and medium businesses as well including some multi-national clients.

packetworks

# Packetworks' Fibre to the Home (FTTH)

- Provided limited residential Internet service via wireless up until 2015
- Began diversifying into last mile residential fibre deployments in 2015-16
- 1 Gbps capacity networks providing high transmission rates and scalable capacity with no data caps
- Packetworks is much more than an ISP.
  - Full CLEC (finalizing early 2017) providing local and LD voice services
  - Exempt Broadcast Distribution Undertaking (BDU) providing IPTV services
- Packetworks can offer full triple play of Internet, telephone and television services to our FTTH clients.
- Gbit Fibre optic networks ensure quality & reliability with scalability for the future
- Working to improve connectivity in rural Ontario Packetworks has or is deploying FTTH in five rural communities with many more in planning stages

packetworks

# Packetworks' Current Residential FTTH Deployments

| Community | Homes Passed | Year of Initial Deployment |
|---|---|---|
| Alma | 240 | 2015 |
| Embro | 260 | 2016 |
| Pike Lake | 400 (150 year round) | 2016 |
| Maryhill | 240 | 2016 |
| Wallenstein | 60 | 2016 |
| Dutton | 560 | 2017 (planned) |
| Bloomingdale | 90 | 2017 (planned) |
| Winterbourne | 124 | 2017 (planned) |

packetworks

# Packetworks Residential Offering

| Service | Description | Monthly Rate (plus HST) |
|---|---|---|
| **Internet Services 15** | 15 Mbps Symmetrical no data caps | $59.95 |
| **Internet Services 100** | 100 Mbps Symmetrical no data caps | $99.95 |
| **Standard Voice Service** | Includes Local service, MRS, V911, standard feature set of Call Forward, Voice Mail, Per Call Name and Number Blocking and includes Canada-US calling with exclusions including Alaska, NWT, Yukon, Nunavut, and the SILEC territories. | $24.95 Per Line |
| **Skinny Basic TV** | 25 TV channels incl. CDN and US Networks, Weather and 45 Radio Stations | $24.95 |
| **Standard Basic TV** | Includes Skinny Basic services plus Sports Packs 1 & 2 | $39.99 |
| **Internet & Voice Bundle 15** | 15 Mbps plus Voice | $79.95 |
| **Internet & TV Bundle 15** | Includes 15 Mbps Internet and Standard Basic TV | $99.94 |
| **Internet, Voice and TV Bundle 15** | Includes 15 Mbps Internet, Voice and Standard Basic TV | $119.94 |
| **Internet & Voice Bundle 100** | 100 Mbps Internet plus Voice | $109.95 |
| **Internet & TV Bundle 100** | Includes 100 Mbps Internet and Standard Basic TV | $139.94 |
| **Internet, Voice and TV Bundle 100** | Includes 100 Mbps Internet, Voice and Standard Basic TV | $149.94 |
| **TV Theme Packs** | Standard Theme Packs | $4.95 ea. |
| | Premium Theme Packs | $7.95 ea. |
| | Movie Theme Packs | $16.95 ea. |

packetworks

# Connect To Innovate Program

- $500 Million allocated to provide high-speed backbone to designated unserved communities across Canada (and to a lesser extent last-mile but only in northern and remote areas).
- 2 eligible communities identified within Melancthon
  - Corbetton (30 homes approx.)
  - Melancthon (5-10 homes approx.)
- Backbone Build Costs for Fibre from Packetworks' Experience
  - $38K-$42K per km buried
  - $15K-$18K per km aerial

packetworks


12.4 Km backbone from Dundalk - $0.52M

12.5 Km backbone from Shelburne - $0.53M

packetworks

# Packetworks and Last-Mile

- CTI program does not extend to last-mile in the Melancthon communities
- Packetworks would consider completing last-mile FTTH builds in the communities if backbone funding is secured.
  - Extremely low density challenging business case
- Build Costs for Last Mile Fibre from Packetworks' Experience
  - $3,200-$3,500 per home buried
  - $1,800-$2,500 per home aerial
- Melancthon and Corbetton FTTH Build approx. $175,000

packetworks

# Looking for Support from  Melancthon

- Letter of support
- Impact Statement – What impact would high speed fibre network have on quality of life, economic impact, business growth, development, home based business growth and overall impact on the Township
- Identify prospective anchor institutions and other Municipal assets available in the designated community or along path
- Consideration of in-kind contribution such as long term land lease for location of POP shelter/cabinet and standby power where applicable

packetworks

# Connect to Innovate Program

## Questions?

## Contacts

Mike Andrews
mandrews@packetworks.net
519-579-4507 ext. 102

Robert Musty
rmusty@packetworks.net
226-973-4159

March 06, 2017

packetworks

## Denise Holmes

**From:** Heather Boston <hboston@mulmur.ca>
**Sent:** Wednesday, March 01, 2017 11:32 AM
**To:** Denise Holmes (dholmes@melancthontownship.ca)
**Cc:** Bert Tupling (tuplingfarms@sympatico.ca); Chester Tupling (chester.tupling@premierequipment.ca)
**Subject:** NDCC Board of Management Amended Mandate
**Attachments:** NDCC Board of Management Mandate.docx

Hi Denise,

Our Council reviewed and amended the mandate and I have attached it for your Council's review.

Thanks

**Heather Boston, CPA, CA, CGA, BComm | Treasurer**
*Township of Mulmur | 758070 2nd Line East | Mulmur, Ontario L9V 0G8*
*Phone 705-466-3341 ext. 233 | Fax 705-466-2922 | hboston@mulmur.ca*



NEW/
OB #2
MAR 16 2017

# NDCC Board of Management Mandate

- Establish a Board made up of eight members: a member of Council from both Melancthon and Mulmur, Bert and Chester Tupling and four additional members from Mulmur, Melancthon and/or a surrounding Township

The board will:

- Meet a minimum of eight times a year
- Monitor and find cost savings for the arena
- Create annual budget that will be approved by both Melancthon and Mulmur and stay within this budget (the committee will use the 2017 approved budget)
- Optimize all rentals to increase revenue
- Review monthly expenditures
- Defer Capital expenditures as needed
- Create a five-year capital plan with the goal of updating the facility so that it is a more usable space
- Make the NDCC a community hub for both Townships
- Create and run fundraising events
- The Board will review and determine the usage of the arena by each Township based on the 2016-17 season and suggested the proportion of contribution to be made by each Township prior to the passing of the following year's budget

Mulmur Township will:

- Create a separate bank account so that individuals can make donations directly to the NDCC Reserves for capital projects
- Provide bookkeeping and secretarial duties for a fee
- Provide, supervise and pay arena staff
- Ensure Arena Manager will be available to attend meetings to provide updates

# Corporation of the Township of Melancthon

Moved by .....

Seconded by ..... Date ....., 2017

Be it resolved that:

WHEREAS the Ministry of Municipal Affairs and Housing has proposed a change to the Building Code, B-08-09-03, requiring mandatory five year septic tank pump out and records retention by the owner;

AND WHEREAS that same change requires Municipalities to administer and enforce this change;

AND WHEREAS the change document fails to identify the administrative costs to Municipalities;

AND WHEREAS the change document fails to identify any transfer of Provincial funding to offset these downloaded costs;

AND WHEREAS many Municipalities already have by-laws to regulate septic systems especially near waterways;

AND WHEREAS the majority of homeowners pump out their septic tanks on a regular basis whether regulated to or not;

AND WHEREAS there are many more important issues on which to spend taxpayer's money than "enhancing" maintenance on existing functioning systems;

AND WHEREAS adequate legislation already exists to correct malfunctioning systems;

AND WHEREAS Premier Wynne stated on Monday, January 30th, 2017 at the ROMA Conference that the Province recognizes that "one size fits all" solutions do not always work in rural Ontario;

UNF
BUS 1 MAR 16 2017

NOW THEREFORE BE IT RESOLVED THAT the Township of Melancthon request the Honourable Bill Mauro, Minister of Municipal Affairs to rescind proposed Building Code change B-08-09-03;

AND FURTHER THAT a copy of this resolution be sent to the Honourable Kathleen Wynne, Premier of Ontario; the Honourable Bill Mauro, Minister of Municipal Affairs, Mr. Patrick Brown, Leader of the Progressive Conservative Party; Ms. Andrea Horwath, Leader of the New Democratic Party and Sylvia Jones, MPP, Dufferin-Caledon;

AND FURTHER THAT a copy of this resolution also be sent to the Association of Municipalities of Ontario and the Rural Ontario Municipal Association and Municipalities in Dufferin County for consideration.

| **Recorded Vote** | Yea | Nay |
|---|---|---|
| Mayor Darren White | | |
| Deputy Mayor Janice Elliott | | |
| Councillor Dave Besley | | |
| Councillor Wayne Hannon | | |
| Councillor James C. Webster | | |

Carried/Lost: _____

MAYOR