The Corporation of the Town of Ajax

GENERAL GOVERNMENT COMMITTEE

Monday May 9, 2016

Open Meeting at 1:30 p.m.

In-Camera to follow immediately after open session

River Plate Room, Town Hall

65 Harwood Avenue South



Confirmed by:

AGENDA

Alternative formats available upon request by contacting:

accessibility@ajax.ca or 905-619-2529 ext. 3347

Anything in **blue** denotes an attachment/link. By clicking the links on the agenda page, you can jump directly to that section of the agenda. To manoeuver back to the agenda page use the **Ctrl + Home** keys simultaneously **OR** use the "Bookmark" icon to the left of your screen to navigate from one report to the next

J. Dies, Chair P. Brown, Vice Chair

Open Meeting

4.1

- 1. Call To Order
- 2. Disclosure of Pecuniary Interest
- 3. Adoption of In-Camera Minutes April 11, 2016 (circulated separately)
 - Any discussion will be held in the In-Camera Session
- **4. Consent Agenda** Considered to be routine, these items may be approved by one motion. Items may be separated and referred to the Discussion Agenda

2016 BIA Levy - Downtown BIA, S. Strain, Director of Finance/Treasurer / T. Simkin,

- 4.3 Contract Award Streetlight Maintenance, D. Meredith, Director of Operations & Environmental Services / M. Khawaja, Infrastructure & Asset Management Technologist .. 9
- 4.4 Ajax Winter Tennis Licence Agreement, D. Meredith, Director of Operations & Environmental Services / C. Bridgeman, Manager, Infrastructure & Asset Management..12
- 4.5 Contract Award Main Branch Library ~ Lighting Retrofit, D. Meredith, Director of Operations & Environmental Services / R. Cole, Capital Projects Technologist.......22

| 7. | Departmental Updates | | |
|----|----------------------|--|--|
| | 6.1 | Duffin Creek Water Pollution Control Plant Outfall EA – Status Update, P. Allore, Director of Planning & Development Services / B. Hodgins, Senior Policy Planner82 Dr. Martin Auer, Professor of Civil and Environmental Engineering at Michigan Technological University Ms. Jennifer Danahy, Environmental Law Specialist, Gowling WLG | |
| 6. | Presentations | | |
| | 5.1 | Selby Drive Driveway Issues, Councillor M. Crawfordverbal | |
| 5. | . Discussion | | |
| | 4.13 | Bill 181 Revisions to the <i>Municipal Elections Act</i> , M. de Rond, Director of Legislative & Information Services/Clerk / A. Harras, Manager of Legislative Services/Deputy Clerk75 | |
| | 4.12 | License Agreement for Ajax Community Theatre, T. Vaughan-Barrett, Director of Recreation & Culture / C. Baudanza-DiTacchio, Acting Facility Manager – Satellite Facilities / R. Gruber, Manager of Community & Cultural Development | |
| | 4.11 | Manufacturer's Limited Liquor Sales Licence – Falcon Brewery, P. Allore, Director of Planning & Development Services / A. Poray, Senior Economic Development Officer65 | |
| | 4.10 | Encouraging the Delivery of Affordable Housing in Ajax, P. Allore, Director of Planning & Development Services / G. Muller, Manager of Planning | |
| | 4.9 | Contract Award – Local Road Resurfacing 2016 and Rotary Park Trail/Parking Improvements, P. Allore, Director of Planning & Development Services / R. Fernando, Capital Projects Coordinator | |
| | 4.8 | Westney Road Landfill Monitoring Program Update, D. Meredith, Director of Operations & Environmental Services / J. Schofield, Sustainability Coordinator35 | |
| | 4.7 | Contract Award – MCC Pool Refurbishment, D. Meredith, Director of Operations & Environmental Services / R. Cole, Capital Projects Technologist30 | |

In-Camera

- 8. Authority to Hold a Closed Meeting and Related In-Camera Session
 - A matter of advice subject to solicitor-client privilege, including communications necessary for that purpose [Sec. 239 (2)(f), Municipal Act, 2001, as amended]
 - A matter pertaining to labour relations or employee negotiations [Sec. 239 (2)(d), Municipal Act, 2001, as amended]
 - 8.1 Duffin Creek Water Pollution Control Plant Outfall EA Status Update
 - 8.2 Ajax Fire & Emergency Services Collective Bargaining Update
- 9. Adjournment



REPORT TO: General Government Committee

SUBMITTED BY: Sheila Strain, CPA, CGA

Director of Finance/Treasurer

PREPARED BY: Terry Simkin

Manager of Taxation

SUBJECT: 2016 BIA Levy - Downtown BIA

WARD(S): All

DATE OF MEETING: May 9, 2016

REFERENCE:

RECOMMENDATION:

That the 2016 budget of \$5,200.00 for the Downtown BIA be approved and that the amount of \$5,212.00 be raised by taxation.

BACKGROUND:

In order to add the BIA levy to the final tax bill, Council must approve the BIA budget and set the amount to be raised by taxation. A copy of the 2016 budget approved and submitted by the BIA Board of Management is attached.

DISCUSSION:

In order to determine the amount to be raised by taxation, the deficit from the prior year must be added to the approved budget for the current year. In 2015 the Downtown BIA had a deficit in the amount of \$12.00, therefore the amount to be raised by taxation is \$5,212.00.

| | Amount |
|---------------------|------------|
| 2016 Net Budget | \$5,200.00 |
| 2015 Deficit | \$12.00 |
| Amount To Be Raised | \$5,212.00 |

FINANCIAL IMPLICATIONS:

The BIA Levy will be raised on the final tax bill which will be issued in July. As in previous years, the Town will advance any funds that the BIA requires for their on-going operations prior to billing.

CONCLUSION:

Council's approval of the 2016 Downtown BIA budget and the setting of the amount to be raised by taxation will allow the BIA levy to be added to the final tax bill.

| ATTACHMENTS: | | |
|-------------------------------|--|--|
| ATT-1: Budget | | |
| • | | |
| | | |
| | | |
| Terry Simkin | | |
| Manager of Taxation | | |
| | | |
| | | |
| Sheila Strain, CPA, CGA | | |
| Director of Finance/Treasurer | | |



March 21, 2016

Notice: Letter In lieu of Annual General Meeting (AGM) of the Downtown Ajax BIA

To: All Downtown Ajax BIA Landlords and Business Tenants

Due to the inactive state of the Downtown BIA, as a result of the potential redevelopment in the area, this letter will suffice as notice in place of an AGM. As a result of the above, the proposed budget for 2016 will be the same as for 2015 unless objections are heard prior to March 31, 2016.

2016 Proposed Budget

Expenditures

| Total Budget | \$5200.00 |
|----------------------------|-----------|
| Revenue | \$0.00 |
| Total Expenditures | \$5200.00 |
| Advertising | \$0.00 |
| Bank Charges | \$200.00 |
| Maintenance/Landscaping | \$2000.00 |
| Audit | \$500.00 |
| Sign Hydro and Maintenance | \$2500.00 |

Any questions, please direct them to Jeffrey Wilson at Jeffrey@reedsflorists.com

Sincerely,

Jeffrey Wilson



REPORT TO: General Government Committee

SUBMITTED BY: Sheila Strain, CPA, CGA

Director of Finance/Treasurer

PREPARED BY: Terry Simkin

Manager of Taxation

SUBJECT: 2016 BIA Levy – Pickering Village BIA

WARD(S): All

DATE OF MEETING: May 9, 2016

REFERENCE:

RECOMMENDATION:

That the 2016 budget of \$50,000.00 for the Pickering Village BIA be approved, and that the amount of \$47,274.00 be raised by taxation.

BACKGROUND:

In order to add the BIA levy to the final tax bill, Council must approve the BIA budget and set the amount to be raised by taxation. A copy of the 2016 budget approved and submitted by the BIA Board of Management is attached.

DISCUSSION:

In order to determine the amount to be raised by taxation, the surplus from the prior year must be deducted from the approved budget for the current year. In 2015 the Pickering Village BIA had a surplus in the amount of \$2,726.00, therefore the amount to be raised by taxation is \$47,274.00.

| | Amount |
|---------------------------------|--------------|
| 2016 Net Budget | \$50,000.00 |
| Less: 2015 Surplus | \$(2,726.00) |
| Amount To Be Raised By Taxation | \$47,274.00 |

FINANCIAL IMPLICATIONS:

The BIA Levy is added to the final tax bill which will be issued in July. As in previous years, the Town will advance any funds that the BIA requires for their on-going operations prior to billing.

CONCLUSION:

Council's approval of the Pickering Village BIA's 2016 budget and the setting of the amount to be raised by taxation will allow the BIA levy to be added to the final tax bill.

ATTACHMENTS: ATT-1: Budget Terry Simkin Manager of Taxation Sheila Strain, CPA, CGA

Director of Finance/Treasurer

PICKERING VILLAGE BIA PROPOSED 2016 BUDGET

| Item | Detail | Expense | Total |
|------------------------|---|-------------|-------------|
| Administration | Miscellaneous (i.e mailbox rental, website hosting, postage expenses, printing costs, membership dues, bank charges, etc.) | \$4,000.00 | |
| | Audit | \$2,500.00 | \$6,500.00 |
| Beautification | Landscaping (i.e. – annual and perennial flower planting, watering and maintenance of flowers, etc.) | \$20,000.00 | |
| | Other (i.e. – banners, hanging baskets, flower pots, benches, street lighting, etc.) | \$7,000.00 | \$27,000.00 |
| BIA Events & Promotion | JamFest Sponsorship | \$2,500.00 | |
| | 2016 Christmas Event | \$5,000.00 | |
| | Promotion & Advertising (i.e local/community newspaper ads, mobile signage, event photography and/or videography, etc.) | \$5,000.00 | |
| | Other (i.e. – Shop local, home week promotions or campaigns, event coordinator fees, etc.) | \$4,000.00 | \$16,500.00 |
| | | | \$50,000.00 |



REPORT TO: General Government Committee

SUBMITTED BY: Dave Meredith

Director, Operations and Environmental Services

PREPARED BY: Mujtaba Khawaja

Infrastructure and Asset Management Technologist

SUBJECT: Contract Award – Streetlight Maintenance

WARD(S): All

DATE OF MEETING: May 9, 2016

REFERENCE: Tender No. T16012

RECOMMENDATION:

1. That Council award the contract for Streetlight Maintenance, to Aline Utility Limited in the estimated amount of \$324,662.80 (inclusive of all taxes), for a period of one year.

2. That Council authorize Staff to renew the contract for an additional two, one year periods, pending an analysis and satisfactory performance review at the anniversary date of the contract, in the estimated amount of \$678,837.42 (inclusive of all taxes).

BACKGROUND:

In accordance with the decision by the Ontario Energy Board in 2009, the Town of Ajax assumed the responsibility for streetlight maintenance which was previously performed by Veridian Connections on behalf of the Town of Ajax.

The current Town of Ajax streetlight maintenance contract expires on April 30, 2016. In order to ensure uninterrupted streetlight maintenance services the contract was extended on a month to month basis.

DISCUSSION:

The maintenance requirements of the Town's streetlights are governed by the Municipal Act 2001, Ontario regulation 239/02. The minimum standard for the frequency of inspecting all luminaires to ensure they are functional as designed is once per calendar year. The Town's current service level ensures all luminaires are inspected twice annually (Spring and Fall). The Municipal Act requires repairs when three (3) or more consecutive luminaires are not functioning, or when 30% or more of luminaires on any kilometre of roadway are not functioning. In these situations, repairs must be completed between 7 and 14 days depending on the road classification.

Under the terms of this contract, the successful vendor will be responsible for providing all labour, equipment and materials necessary for the regular and/or emergency repair or replacement of the Town's streetlighting infrastructure. Streetlight maintenance requests received through telephone calls, emails, Town website and inspections will be sent to the vendor on a weekly basis. Typically, luminaires are repaired within fourteen (14) days of the Town being made aware of any outage. Repairs to any underground infrastructure may take longer due to the nature of the work.

The March 21, 2016 LED Streetlight Conversion Strategy proposed a six (6) year phased approach to the implementation of the new cobra head LED Streetlights. The conversion of the cobra head street lights will see a reduction in streetlight maintenance due to the new technology.

Request for Tender (RFT) documents were issued to eight prospective bidders with bids being received back from three of these, prior to the closing on April 19, 2016. Upon review of the three bids received, a number of arithmetical errors were discovered, resulting in a Corrected Total Tender Amount. Listed below is a summary of the bids received:

| NAME OF BIDDER | TOTAL TENDER AMOUNT | CORRECTED TOTAL TENDER AMOUNT |
|------------------------------------|---------------------|-------------------------------|
| AlineUtility Limited | \$1,003,500.22 | \$1,003,500.22 |
| Langley Utilities Contracting Ltd. | \$1,133,864.00 | \$1,133,864.00 |
| Guild Electric Limited | \$1,680,316.73 | \$1,680,327.44 |

Contract commencement is May 30, 2016 and completion is expected by April 30, 2019.

FINANCIAL IMPLICATIONS:

The costs of the contracted streetlight maintenance award are higher than the 2016 operating budget which was based on historical pricing and occurrences. The awarded costs are estimates and dependent upon actual occurrences, customer service requests, and ongoing inspections. The over budget of \$51,768.89 will be managed through offsets from other operating budgets and mitigated in future years by the LED Streetlight Conversion Strategy. Under the existing streetlight compliment the 2017 operating budget will increase by \$61,000.00 however the increase will be mitigated as the LED conversions are completed.

COMMUNICATION ISSUES:

All streetlight maintenance requests received through telephone calls, emails, Town website and inspections are being directed to the Operations & Environmental Services Department for action. These customer service requests will be processed and forwarded to Aline Utility Limited on a weekly basis to ensure the continued integrity and proper functioning of our streetlight system.

CONCLUSION:

It is the recommendation of staff that Aline Utility Limited be awarded the contract for Streetlight Maintenance, being the lowest bidder meeting minimum specifications.

Mujtaba Khawaja Infrastructure & Asset Management Technologist

Dave Meredith Director, Operations & Environmental Services



REPORT TO: General Government Committee

SUBMITTED BY: Dave Meredith,

Director – Operations and Environmental Services

PREPARED BY: Catherine Bridgeman

Manager – Infrastructure and Asset Management

SUBJECT: Ajax Winter Tennis – Licence Agreement

WARD(S): All

DATE OF MEETING: May 9th, 2016

REFERENCE: By-Law #59-99 Licence Agreement with Ajax Winter Tennis Inc.

RECOMMENDATION:

- 1. That the Mayor and Clerk be authorized to execute the attached Agreement to authorize John Long Ajax Winter Tennis to install an air supported structure to operate an indoor tennis facility at the existing tennis courts at the Ajax Community Centre.
- 2. That Staff be delegated the authority to renew the Agreement for an additional 20 years commencing on September 16th, 2016 and ending on April 30th, 2036, pending an analysis, satisfactory performance review, and successful negotiations on Terms and Conditions, at the anniversary date of the Agreement.

BACKGROUND:

On September 16, 1996 the Town of Ajax entered into an agreement with Ajax Winter Tennis Inc. The Agreement authorized John Long Owner/Operator of Ajax Winter Tennis to construct an air supported structure for the purpose of providing and operating an indoor tennis facility in the Town of Ajax. The duration of the agreement was for 20 years ending in 2016.

In the winter of 1999 – 2000, in cooperation with the Town of Ajax, a club house was constructed to provide facility users washrooms onsite, and in an effort to create a stronger club atmosphere, a member's room and offices were added.

Ajax Winter Tennis started in 1996 with approximately 65 adult/senior members, and 50 adults playing in programs and 50 juniors in each of the 2 and 3 month sessions.

Since the fourth year of operation Ajax Winter Tennis has experienced a 2-3% annual growth in total activity. They now have a signification membership of;

- 170 adult/senior members
- 180 junior members
- 150 adults that play weekly but are not members
- 60 juniors that play weekly that are not members.

The Club also supports a weekly walk-in program of approximately 500-600 Players. Many of these players play more than once per week.

DISCUSSION:

The Town of Ajax has maintained a strong partnership with Ajax Winter Tennis over the past 20 years. This agreement has provided tennis enthusiast's with an opportunity to extend the tennis season through the winter season.

A summary of provisions incorporated within the attached agreement include the following;

- To install and operate an air supported structure for providing indoor tennis facilities
- Defined exclusive use period from October 1st to April 30th each calendar year
- Obligations for maintenance requirements for resurfacing, and patch and paint
- Exclusive use of the washroom facilities for Ajax Summer Tennis.

FINANCIAL IMPLICATIONS:

Ajax Winter Tennis agrees to pay a Licence Fee (excluding HST) as follows;

| Year | Annual Fee |
|-------------------|------------|
| One to Five | \$11,000 |
| Six to Ten | \$12,000 |
| Ten to Fifteen | \$13,000 |
| Fifteen to Twenty | \$14,000 |

Ajax Winter Tennis agrees to pay for all hydro costs relating to the operation of the facility.

COMMUNICATION ISSUES:

N/A

CONCLUSION:

It is the recommendation of staff that the Agreement with John Long – Ajax Winter Tennis, to install an air supported structure, to operate an indoor tennis facility at the existing tennis courts at the Ajax Community Centre for an additional 20 years commencing on September 16th, 2016 and ending on April 30th, 2036 be executed.

ATTACHMENTS:

ATT-1: Ajax Winter Tennis – Location

ATT-1: License Agreement



ATT-1 – Ajax Winter Tennis – Location Ajax Community Centre ATT-2 - Licence Agreement and by-law

Catherine Bridgeman Manager, Infrastructure and Asset Management

Dave Meredith

Director, Operations and Environmental Services

THE CORPORATION OF THE TOWN OF AJAX

BY-LAW NUMBER XX-2016

A By-law to authorize the execution of a Licence Agreement with Ajax Winter Tennis Inc.

NOW THEREFORE the council of the corporation of the Town of Ajax enacts as follows:

- That the town of Ajax do enter into that certain agreement dated May 16, 2016 with Ajax Winter Tennis Inc., subject to the terms and conditions as set out in Appendix "A" attached Hereto.
- That the Mayor and clerk be and they are hereby authorized to execute the said 2. agreement on behalf of the corporation and to affix the Corporate Seal thereto.
- 3.

| That By-laws 85-96 and 59-99 are hereby r | repealed. |
|---|---|
| | Read a first and second time this Sixteenth day of May, 2016. |
| | Read a third time and passed this Sixteenth day of May, 2016. |
| | |
| | Mayor |
| | |
| | D_Clark |

LICENCE AGREEMENT

THIS AGREEMENT made this day of , 2016.

BETWEEN:

THE CORPORATION OF THE TOWN OF AJAX

(the "Licensor")

- and -

AJAX WINTER TENNIS INC.

(the "Licensee")

WHEREAS:

The Licensor is the registered owner of the lands as shown in Schedule "A" attached hereto (the "Licensed Premises") and has agreed to allow the Licensee to use the Licensed Premises for the purposes of the construction and operation of an air supported structure for providing indoor tennis facilities.

IN CONSIDERATION of the premises and other good and valuable consideration the parties agree as follows:

- 1.1 The Licensor grants to the Licensee an exclusive Licence to use the Licensed Premises to erect an air supported structure for indoor tennis and to operate an indoor tennis facility during the period from October 1st of a calendar year to April 30th of the following calendar year (the "Facility").
- 1.2 The License hereby granted shall be for a term (the "Term") commencing on September 16th, 2016 and ending on April 30th, 2036. The period from October 1st of each calendar year and April 30th of the next calendar year shall be deemed to be a year of the Term.
- 1.3 The Licensee hereby accepts the Licensed Premises in their condition as of the date hereof and shall not call upon the Licensor to do or pay for any work or supply any equipment to make the Licensed Premises more suitable for the proposed use by the Licensee hereunder.
- 1.4 The Licensee shall pay the Licensor a Licence fee (the "Fee") as follows:

| YEAR | ANNUAL FEE |
|-------------------|-------------|
| One to Five | \$11,000.00 |
| Six to Ten | \$12,000.00 |
| Ten to Fifteen | \$13,000.00 |
| Fifteen to Twenty | \$14,000.00 |

In addition the Licensee shall pay HST on the Fee. The Fee together with HST shall be payable on or before October 8th of each year of the Term.

1.5 In this Agreement the following terms shall have the following meanings and shall be applicable to the tennis courts within the Licensed Premises:

"Patch and Paint" means (i) cleaning out any visible cracks, applying Cracklastic or a Town of Ajax approved product; (ii) apply an acrylic re-surfacer over the repaired area; and (iii) re-paint the entire court area with industry accepted court paint.

"Resurfacing" means repairing all cracks and depressions using two coats of acrylic re-surfacing paint and two coats of industry accepted court paint.

Resurfacing shall be completed by a contractor with expertise in such work.

"Reconstruction" means the removal of the existing court surface including granular material and fencing and the installation of a new court surface.

- 1.6 Reconstruction shall be the responsible of the Licensor and at the sole cost of the Licensor. Upon the Licensor completing the Reconstruction the Licensor shall be responsible for the maintenance of the tennis courts, with the exception of Patch and Paint and the Licensee shall not carry out or cause to be carried out any Resurfacing or Reconstruction work without the approval of the Licensor.
- 1.7 Resurfacing of the tennis courts shall be carried out by the Licensor in accordance with the Licensor's Purchasing By- law. The requirement of Resurfacing will be reviewed in accordance with the Licensor's Capital Budget approval process. Licensor's staff will coordinate all Resurfacing work outside of the exclusive use period. Following completion of the Resurfacing work the Licensor shall deliver to the Licensee a copy of the invoice relating to such work. The Licensee shall pay 70% (the "Additional Fee"). of the invoice within thirty (30) days of the delivery of the invoice by the Licensor to the Licensee. If the Licensee defaults in payment as herein set out the Licensor may re-enter and take possession of the Licensed Premises. The Licensee shall be fully responsible for the costs of any Resurfacing required as a result of the erection of the air supported structure. It is understood and agreed that, except for Resurfacing required as a result of the erection of the air supported structure, the Licensee shall not be required to pay the Additional Fee unless and until the Licensor has completed the Reconstruction.
- 1.8 The Licensee shall be entitled to complete Patch and Paint subject to the following requirements:
 - (a) Prior to proceeding with any Patch and Paint the Licensee shall give not less than five (5) days written notice to the Licensor of its intention to complete Patch and Paint;
 - (b) The Licensor and the Licensee shall attend at the Licensed Premises to inspect the surface of the tennis courts and no Patch and Paint shall be carried out without the prior approval of the Licensor;
 - (c) The Licensee shall be responsible for 100% of the cost for the Patch and Paint work.
- 2.1 The Licensee covenants with the Licensor:
 - (1) to pay the Fee, the Additional Fee and a fee of \$50.00 for each invoice issued by the Licensor to the Licensee;
 - (2) to use the Licensed Premises, only for the purposes of the Facility and for no other purpose;
 - (3) to install in a good and workmanlike manner an air supported structure and all other structures or equipment required to operate the Facility including but without limiting the foregoing:
 - (a) Electrical installations and lighting;

- (b) Heating equipment;
- (c) Washroom facilities; and
- (d) A permanent entrance building.

No installation of the air supported structure shall commence until and unless the detailed plan specifications and calculations relating to such structure have been stamped approved by a qualified Professional Engineer and delivered to the Licensor;

- (4) Subject to paragraphs 1.5 and 1.6 of this Agreement, to maintain and repair the Licensed Premises and all equipment thereon at its own expense;
- to ensure that no refuse, litter, garbage or loose or objectionable material accumulates in or about the Licensed Premises;
- (6) not to alter, add to or install equipment in the Licensed Premises without first having the written consent of the Licensor which consent may be unreasonably withheld;
- (7) to ensure that the Facility is open for use for tennis by October 8 of each year of the Term and continues open for use until April 30 of the following year of the Term weather permitting;
- (8) to remove the air supported structure not later than May 15 of each calendar year;
- (9) to permit the Licensor and its invitees to use the washroom facilities during the Term and between May 1st and September 15th of each calendar year;
- (10) to pay for all hydro costs relating to the operation of the Facility. The parties acknowledge that until the installation of a sub-meter by Veridian for hydro service the Licensor shall provide digital images of the meter as back up on the invoice. The Licensor shall invoice the Licensee twice during each year of the Term for the costs of hydro and the invoice shall be due within thirty (30) days of its delivery. At the time of delivery of the invoice the Licensor agrees to provide a copy of the invoice;
- (12) to ensure that the operation of the Facility is supervised at all times during the hours of operation by a qualified adult and in a courteous manner. The Licensee shall indicate in the Facility and on its user application forms that the services are provided by the Licensee and not the Licensor;
- (13) to provide and maintain comprehensive general liability insurance in the minimum amount of \$5,000,000.00 with respect to its use of the Licensed Premises during the full term of this Agreement and any extension thereof, naming the Licensor as an additional insured, and to provide a certificate evidencing same, prior to execution of this Agreement and as required by the Licensor. Without limiting the generality of the foregoing, such public liability insurance shall contain provisions for cross-liability, severability of interests, and no cancellations or alterations without the consent of the Licensor;
- (14) not to assign this Agreement without the prior written consent of the Licensor, which consent may be unreasonably withheld;
- (15) to leave the Licensed Premises in substantially the same condition at the expiry of this Agreement as they were at the commencement of this Agreement;

- (16) to comply with all federal, provincial and municipal laws, rules, regulations and by-laws and to hold the Licensor harmless from the consequences of its failure to do so.
- 2.2 The Licensor agrees during the Term as follows:
 - (a) to maintain the Ajax Community Centre parking lot adjacent to the Facility and to keep such lot free and clear of all snow and ice;
 - (b) to carry out an inspection with the Licensee prior to the installation and following the removal of the facilities to determine if any repairs to the tennis courts are required to be made either by the Licensor or the Licensee;
 - (c) not to require the Licensee to operate the indoor tennis facility during statutory holidays but nothing herein shall prevent the Licensee from so doing; and
 - (d) to permit and assist in the distribution of brochures and application forms relating to the operation of the indoor tennis facility.
- 2.3 The Licensor shall have the right to enter into the Licensed Premises at any time for the purposes of conducting an inspection of the Facility or in the event of any emergency situation therein.
- 2.4 The Licensee shall provide to the Licensor key's to the Facility in the event of any emergency situation that would require the Licensor to enter the Licensed Premises
- 3.1 The Licensee may remove its equipment from the Licensed Premises, provided all damage thereby occasioned shall forthwith be repaired by the Licensee at its own expense.
- 4.1 The Licensee shall at all times indemnify and save harmless the Licensor from and against any and all claims, demands, losses, costs, charges, expenses, actions and other proceedings made, brought against, suffered by or imposed on the Licensor or its property in respect of any failure by the Licensee to fulfil any of its obligations under this Agreement or for any reason whatsoever or in respect of any loss, damage or injury (including injury resulting in death)to any person or property (including, without restricting the generality of the foregoing, employees, contractors, agents and property of the Licensor) directly or indirectly arising out of, resulting from or sustained by reason of the occupation or use of the Licensed Premises, or any operation in connection therewith or any fixtures or chattels thereon. The safeguarding and security of the equipment of the Licensee shall be the sole responsibility of the Licensee.
- 4.2 The Licensor shall not be liable, directly or indirectly, for any personal injuries that may be suffered or sustained by any person who may be on the Licensed Premises or for any loss of or damage or injury to property belonging to the Licensee or any other person unless such injury, loss or damage is due to the Licensor's negligence or default or the negligence or default of those for whom the Licensor is in law responsible.
- 5.1 The Licensee shall fully indemnify and save harmless the Licensor from and against all construction liens and related costs and other claims in connection with all work performed by or for the Licensee on the Licensed Premises, and shall within 10 days of the registration of any such lien remove all registered claims from title.
- 6.1 This Agreement and the Licence herein granted may be terminated as follows:
 - (1) If the Licensee defaults in performing any of its obligations under this Agreement. The Licensor shall give written notice to the Licensee of such default giving the Licensee five (5) days to remedy such default, failing

which the Licensor may terminate the license hereunder and the Licensee shall then, if the Licensor is in possession of the Licensed Premises, forthwith remove its equipment, if any, from the Licensed Premises and shall restore the Licensed Premises to the condition in which they were at the commencement of this Agreement; and

(2) By the Licensee by giving notice to the Licensor in writing on May 15 of any year of the Term which termination shall be effective on May 15 of the year the notice is given;

and upon the effective date of termination the Licensor may re-enter and take possession of the Licensed Premises. Upon the termination of this Agreement all the improvements and alterations to the Facility, except the air supported structure, shall be the property of the Town unless the Town determines that it does not wish to have such improvements or alterations in which event the Licensee shall remove same.

- 7.1 This Agreement does not create a fiduciary relationship between the parties hereto. The Licensee agrees that it is not an agent of the Licensor and has no authority to bind the Licensor. Nothing herein shall be construed so as to constitute the parties as partners, joint ventures or agents of the other.
- 8.1 Any notice required to be given to the Licensor under the terms of this Agreement shall be sufficiently given if delivered to the Licensor, sent by facsimile transmission or mailed by prepaid registered mail addressed to it at 65 Harwood Avenue South, Ajax, Ontario L1S 2H9. Any notice required to be given to the Licensee under the terms of this Agreement shall be sufficiently given if delivered to the Licensee or mailed by prepaid registered mail addressed to the Licensee at 34 Patton Street, Collingwood, Ontario L9Y 0E4 or at such other address as the Licensee may in writing designate. In either case, such notice shall be deemed to have been received on the date of its delivery or transmission or in the case of mailing, two (2) business days after the date of mailing.
- 9.1 This Agreement shall ensure to the benefit of and be binding upon the parties and their respective permitted successors and assigns.

IN WITNESS WHEREOF the parties have signed this Agreement by the hands of their respective officers duly authorized in that behalf.

THE CORPORATION OF THE TOWN OF AJAX

| Name: Steven Parish Title: Mayor |
|-------------------------------------|
| Name: Martin deRond Title: Clerk |
| We have authority to bind the Town |
| AJAX WINTER TENNIS INC. |
| Per:Name: |

Title: I/We have authority to bind the Corporation Schedule "A"

FIRSTLY:

Part 7 of Plan 40R-836.

SECONDLY:

Part of Part 3 of Plan 40R-836, more particularly described as follows:

COMMENCING at a point being the south-west corner of Part 3;

THENCE North 17 degrees 07 feet 00 inches west a distance of 58 m (190 feet);

THENCE North 72 degrees 53 feet 50 inches east a distance of 144.88 m (475.33 feet);

THENCE South 17 degrees 12 feet 30 inches east a distance of 58 m (190 feet);

THENCE South 70 degrees 53 feet 50 inches west a distance of 144.88 m (475.33 feet) to the point of commencement.



REPORT TO: General Government Committee

SUBMITTED BY: Dave Meredith, Director of Operations & Environmental Services

PREPARED BY: Ryan Cole, OES Capital Projects Technologist

SUBJECT: Contract Award – Main Branch Library ~ Lighting Retrofit

WARD(S): All

DATE OF MEETING: Monday, May 9, 2016

REFERENCE: RFT No. T16016

Capital Account No. 980011.5810

RECOMMENDATION:

1. That Council award the contract for Main Branch Library ~ Lighting Retrofit to BEC Electric Inc., in the estimated amount of \$346,015.04 (inclusive of all taxes).

2. That Council approve funding of \$42,756.99 to be allocated to Capital Account 980011 from Federal Gas Tax Reserve.

BACKGROUND:

The Main Branch Library interior lighting consists primarily of fluorescent light fixtures with electronic ballasts. The fixtures are located in recessed ceiling coves and some in locations encased in architectural decorative glass panels. Ongoing maintenance, which includes the replacement of fluorescent lamps and ballasts, is extensive and prolongs service disruption. The existing fixtures have been in service for 14 years, have become obsolete and the Town's ability to source parts has become difficult.

In 2015, Capital Project 970711 Main Branch Renovations included the following scope of work:

- Construction of staff offices;
- Creation of quiet study area, improvements to youth and pre-school area, upgrade of workstations, display and signage improvements; and
- Consulting Services / Lighting upgrade design.

On March 24, 2015 the Town received proposals for RFP P15005 Consulting Services ~ Ajax Main Branch Library.

On April 10, 2015, the Town retained Luc Bouliane Architect to complete the detailed design and contract administration for the following;

- Construction of Staff offices; and
- Improvements to youth and pre-school area.

On August 27, 2015, the Town awarded the contract for the Ajax Main Branch Library ~ Renovation project. Staff reviewed the available budget and determined sufficient funds were available to negotiate the lighting design consulting services.

On October 9, 2015, the Town retained Luc Bouliane Architect to complete the lighting upgrade design portion of the Consulting Services ~ Ajax Main Branch Library Renovation.

Over the past year, staff have worked with the consulting team to complete the design of the Main Branch Library Lighting Retrofit. The design focused on the implementation of an efficient and sustainable LED solution to achieve a reduction in energy consumption, reduce maintenance requirements and provide improved lighting quality. The lighting retrofit will include:

- > Removal and disposal of fluorescent fixtures and electronic ballasts;
- Supply and Installation of LED fixtures; and
- Daylight harvesting light sensor controls.

DISCUSSION:

Request for Tender (RFT) documents were issued to nine prospective bidders with bids being received back from four of these, prior to the closing on April 26, 2016. Listed below is a summary of the bids received.

| NAME OF BIDDER | TOTAL TENDER AMOUNT |
|-------------------------------|------------------------|
| BEC Electric Inc. | \$346,015.04 |
| Energy Network Services Inc. | \$369,782.53 |
| Current Technologies Ltd. | \$414,145.00 |
| Morosons Construction Limited | \$472,340.00 |

Contract commencement is scheduled to occur on May 16, 2016. Staff will work with the project team to obtain shop drawing and sample approvals immediately after the contract award to achieve delivery of the light fixtures in advance of site mobilization on August 1, 2016. Contract completion is expected on September 2, 2016.

The work will occur during regular business hours. The contractor is responsible to provide a dividing barrier between the active work area and the public space in compliance with the Ministry of Labor Occupational Health and Safety Act.

FINANCIAL IMPLICATIONS:

Capital Account No. 980011.5810 Main Branch Library ~ Lighting Retrofit

Approved Capital Budget \$300,000.00

Contract (net of HST rebate) \$ 311,597.26

Contingency \$ 31,159.73 \$ 342,756.99

Over Budget (\$ 42,756.99)

A 10% project contingency has been allocated to this award to ensure sufficient funding is available to address the potential risk factors that may be encountered during the lighting retrofit. Risk factors include:

- Site conditions different than those anticipated;
- Electrical service conflicts; and
- Extensive architectural repairs.

Additional funding, not to exceed \$42,756.99, will be allocated from Federal Gas Tax Reserve.

The Capital Detail Sheet is attached for information.

COMMUNICATION ISSUES:

Staff will work with the Ajax Library Coordinator of Marketing & Communications to develop a communication plan to ensure that the public is informed of the project progress and timelines.

CONCLUSION:

It is the recommendation of staff that BEC Electric Inc. be awarded the contract for the Main Branch Library ~ Lighting Retrofit, being the lowest bidder meeting the minimum specifications.

ATTACHMENTS:

| Capital Account 980011 Detail Sheet | |
|--|--|
| Ryan Cole – Capital Projects Technologist, Operations & Environmental Services | |
| | |

Dave Meredith – Director of Operations & Environmental Services

TOWN OF AJAX 2016 CAPITAL BUDGET / 2017-2020 LONG RANGE CAPITAL FORECAST DETAIL SHEET

Department Operations & Environmental Services

Section Infrastructure

Project Name Main Br Lib-Lighting Retrofit

Submitted ByCatherine Bridgeman, Manager of Infrastructure & Capital Projects

Start Year 2016 Project Number 0980011

PROJECT DESCRIPTION / JUSTIFICATION

The Main Branch Library interior lighting consists primarily of fluorescent fixtures with electronic ballasts. The fixtures are located in recessed ceiling coves and in some locations encased in architectural decorative glass panels. Ongoing maintenance, which includes the replacement of lamps and ballasts, is extensive and prolongs service interruption. The existing fixtures have become obsolete and the Town's ability to source parts has become difficult.

In 2015, the Town retained a consultant to re-design the main branch interior lighting. The project will include the replacement of the fluorescent light fixtures with an LED solution. LED fixtures are an efficient sustainable solution that will result in a reduction of energy consumption, reduce the maintenance requirements and provide improved lighting quality for the work environment and customer experience.

| 16 | 2017 | 2018 | 2019 | 2020 | Total |
|-----|-------------------|---------|---------|---------|---------|
| | | | 20.0 | 2020 | Total |
| 000 | | | | | 300,000 |
| 000 | | | | | 300,000 |
| 000 | | | | | 300,000 |
| 00) | (2,000) | (2,000) | (2,000) | (2,000) | |
| | 000 000 00) | 000 | 000 | 000 | 000 |



REPORT TO: General Government Committee

SUBMITTED BY: Dave Meredith, Director of Operations & Environmental Services

PREPARED BY: Ryan Cole, OES Capital Projects Technologist

SUBJECT: **Doric Pickering Masonic Lodge ~ Restoration**

> [Renovation and Expansion of Quaker Meeting House] **Canada 150 Community Infrastructure Program Contribution**

Agreement

WARD(S): ΑII

DATE OF MEETING: Monday, May 9, 2016

REFERENCE: April 23, 2015 GGC Report – Property Acquisition

> June 4, 2015 GGC Report – Canada 150 CIP Doric Masonic Lodge October 8, 2015 GGC Report – Doric Masonic Lodge Restoration

Capital Account No. 980611

RECOMMENDATION:

WHEREAS the Federal Economic Development Agency for Southern Ontario launched the Canada 150 Community Infrastructure Program on May 15, 2015 to improve and preserve community infrastructure across southern Ontario and to celebrate Canada's 150th anniversary of Confederation in 2017.

WHEREAS the program provides \$44.4 million in funding over two years for rehabilitation, renovation and expansion of existing community infrastructure assets that are noncommercial and located in Southern Ontario;

WHEREAS Council authorized staff on June 4, 2015 to proceed with the funding application submission to the Canada 150 Community Infrastructure Program; and

WHEREAS the Federal Economic Development Agency for Southern Ontario announced funding approval for the Town of Ajax on July 30, 2015;

THEREFORE BE IT RESOLVED THAT Her Majesty The Queen in right of Canada, hereby represented by the Minister responsible for Federal Economic Development Agency for Southern Ontario and The Corporation of the Town of Ajax enter into a contribution agreement for funding under the Canada 150 Community Infrastructure Program.

| FEDEDEV Ontario | Town of Ajax |
|-----------------|---------------|
| Contribution | Contribution |
| \$ 434,800.00 | \$ 972,000.00 |

BACKGROUND:

On June 4, 2015 Council authorized staff to proceed with the submission of the funding application to the Canada 150 Community Infrastructure Program.

On July 30, 2015 the Town received confirmation from Minister Alexander's office that the Federal Government would contribute \$434,800 of funding towards the project.

At the October 8, 2015 General Government Committee meeting, Council received a report for information outlining the approved funding contribution and a funding reduction strategy to align with the total funding commitment identified in the June 4, 2015 General Government Committee meeting.

Since the contribution announcement staff have been working with a Business Case Analyst from the Federal Economic Development Agency for Southern Ontario, to finalize the contribution agreement.

DISCUSSION:

Staff received the Canada 150 Community Infrastructure Program Contribution Agreement, signed by Her Majesty The Queen in right of Canada hereby represented by the Minister responsible for Federal Economic Development Agency for Southern Ontario, dated April 11, 2016.

The Town of Ajax notarized the Contribution agreement on April 18, 2016.

FINANCIAL IMPLICATIONS:

Capital Account 980611 – Doric Masonic Lodge ~ Restoration

Approved Capital Budget \$1,406,800.00

| FEDEDEV Ontario Contribution | | | | | | |
|------------------------------|------------|------------|--|--|--|--|
| 2016/2017 2017/2018 Total | | | | | | |
| \$ 65,200 | \$ 369,600 | \$ 434,800 | | | | |

| Town Of Ajax Contribution | | | | | | | |
|------------------------------|------------|------------|------------|--|--|--|--|
| Funding Resource | 2016 | 2017 | Total | | | | |
| Building Maintenance Reserve | \$ 80,600 | \$ 456,600 | \$ 537,200 | | | | |
| Capital Contingency Reserve | \$ 65,200 | \$ 369,600 | \$ 434,800 | | | | |
| Total Funding | \$ 145,800 | \$ 826,200 | \$ 972,000 | | | | |

COMMUNICATION ISSUES:

Staff will work with corporate communications to develop a communication plan to ensure that the public is informed.

Staff will comply with the Federal Visibility Requirements [Annex 4] and 2.2 Communications [Annex 2] of the Canada 150 Community Infrastructure Program Contribution Agreement.

CONCLUSION:

That the report on the Doric Pickering Masonic Lodge ~ Restoration [Renovation and Expansion of Quaker Meeting House] Canada 150 Community Infrastructure Program Contribution Agreement be received for information.

ATTACHMENTS:

| Capital Account 980611 Detail Sheet |
|--|
| Ryan Cole – Capital Projects Technologist, Operations & Environmental Services |
| |

TOWN OF AJAX 2016 CAPITAL BUDGET / 2017-2020 LONG RANGE CAPITAL FORECAST DETAIL SHEET

Department Operations & Environmental Services

Section Infrastructure

Project Name Doric Masonic Lodge - Restor

Submitted By Catherine Bridgeman, Manager of Infrastructure & Capital Projects

Start Year 2016 Project Number 0980611

PROJECT DESCRIPTION / JUSTIFICATION

The Doric Pickering Masonic Lodge was originally constructed in 1867 by the Society of Friends (Quaker) Congregation.

On June 4th, 2015 The Town of Ajax executed the Agreement of Purchase and Sale with the Doric Pickering Masonic Hall Corporation.

On July 29th, 2015 The Town received confirmation from Minister Alexander's office that the Federal Government would provide \$434,800 of funding towards the project.

Staff are recommending restoration of the building. The scope of work incorporates improvements to achieve building code compliance, increased functionality, security and accessibility upgrades including but not limited to:

- Accessibility upgrades to washrooms, doors and ramps;
- New foundation and structural upgrades;
- Electrical, HVAC and plumbing upgrades;
- Masonry repair;
- Soffit & eaves trough replacement;
- Door repairs and replacement;
- Interior finishes including flooring & paint;
- Hazardous material remediation: and
- Kitchen & accessible washroom addition / redevelopment.

The proposed project aligns with the Heritage Advisory Committee's mandate to preserve historical sites, architecture and promote cultural history of the Town of Ajax.

The project will include the retention of a consultant to provide detailed construction drawings in the spring of 2016. A general contractor will be retained to commence construction services in the fall of 2016 with an estimated completion in the fall of 2017.

| EXPENDITURES / FUNDING | | | | | | | |
|------------------------------|---------|-----------|------|------|------|-----------|--|
| | 2016 | 2017 | 2018 | 2019 | 2020 | Total | |
| Total Expenditures | 211,000 | 1,195,800 | | | | 1,406,800 | |
| Building Maintenance Reserve | 80,600 | 456,600 | | | | 537,200 | |
| Government Grants | 65,200 | 369,600 | | | | 434,800 | |
| Capital Contingency Reserve | 65,200 | 369,600 | | | | 434,800 | |
| Total Funding | 211,000 | 1,195,800 | | | | 1,406,800 | |



REPORT TO: General Government Committee

SUBMITTED BY: Dave Meredith, Director of Operations & Environmental Services

PREPARED BY: Ryan Cole, OES Capital Projects Technologist

SUBJECT: Contract Award – MCC Pool Refurbishment

WARD(S): All

DATE OF MEETING: Monday, May 9, 2016

REFERENCE: RFT No. T16009

Capital Account No. 981011.5810

RECOMMENDATION:

That Council award the contract for MCC Pool Refurbishment to Canada Construction Limited in the estimated amount of \$728,993.51 (inclusive of all taxes).

BACKGROUND:

The McLean Community Centre was constructed in 1994 and later expanded in 2000 with the following amenities;

- A 25 meter indoor swimming pool with a 130 foot waterslide, whirl pool, children's pool and sauna:
- A double gymnasium;
- > Fitness training room;
- Multipurpose meeting spaces;
- Banquet hall;
- Branch library; and
- Childcare, youth space and a dance/aerobic studio.

The existing pool deck has been in service for 22 years. During this time, the pool deck tiles have become worn requiring substantial annual repairs and maintenance to replace broken tiles and grout. The infiltration of water, through deteriorated tile and grout, continues to accumulate beneath the tiles causing ongoing maintenance repairs.

The lifeguard office ceiling and millwork has deteriorated as a result of the corrosive pool environment and the ongoing water egress from deficient roof conditions. The deficient conditions have been rectified with the successful completion of the 2015 MCC Roof Replacement.

The existing acoustic wall and ceiling panels are 22 years old and have reached the end of their service life.

On March 4, 2014, staff awarded Peter T. Mitches & Associates the contract for Consulting Services – MCC Pool Area Improvements.

Over the past year staff have worked with the consulting team to complete the design of the MCC Pool Refurbishment. During this process a number of conditions were identified:

Deficient waterproofing membrane within the main pool perimeter gutter and deck.

A separate 2015 capital project, MCC Basement Foundation Consulting, was undertaken to assess concrete structure stress cracking and efflorescence. The Town retained the services of Read Jones Christoffersen Itd. [RJC] to investigate and report on the conditions. The report identified that the main pool perimeter gutter and deck waterproofing membrane is no longer effectively preventing moisture egress into the basement level. The recommended course of action is to replace the waterproofing membrane during the MCC Pool Refurbishment project.

➤ Whirlpool tile, grout, membrane and concrete deterioration.

Operations & Environmental Services staff were advised of a significant water leak through the whirlpool basin walls. The Town retained the services of RJC to investigate and report on the conditions. RJC identified deterioration of tile and grout in the form of cracking and loss. Additionally, an acoustical survey identified hollow sounding areas throughout the whirlpool that would indicate debonded tile and deterioration of the concrete walls. The recommended course of action is to remove and replace the tile, grout and waterproofing membrane within the whirlpool including repair of concrete deterioration that may exist beneath the tile.

As a result of the items identified within the structural reports, staff instructed Peter T. Mitches & Associates to incorporate the necessary repairs into the drawings and specifications for the MCC Pool Refurbishment project.

DISCUSSION:

The Town undertook a Request for Pre-Qualification [RPQ] for General Contractors for the McLean Community Centre Pool Refurbishment in February 2016. This RPQ resulted in the appointment of two pre-qualified Contractors.

Request for Tender (RFT) documents were issued to the two pre-qualified Contractors with bids being received back from both of these, prior to the closing on March 22, 2016. Upon review of the bids received, arithmetical errors were discovered, resulting in a Corrected Total Tender Amount. Listed below is a summary of the bids received:

| NAME OF BIDDER | TOTAL TENDER AMOUNT | | CORRECTED TOTAL TENDER AMOUNT | | |
|----------------------------------|------------------------|------------|----------------------------------|------------|--|
| CANADA CONSTRUCTION LIMITED | \$ | 728,993.51 | \$ | 728,993.51 | |
| JOE PACE & SONS CONTRACTING INC. | \$ | 926,835.00 | \$ | 924,575.04 | |

The Capital Expenditure Control Policy provides, in special or unusual circumstances, a contingency in excess of 10% when recommended by the Department Head. As specified in the Financial Implications section of this report, staff are recommending approval of a contingency amount of 15%.

Contract commencement is scheduled to occur on May 16, 2016. Staff will work with the project team to obtain shop drawing and sample approvals immediately after the contract award to achieve delivery of the goods in advance of the pool closure. Contract completion is expected on October 11, 2016.

The indoor pool at the McLean Community Centre will be closed for a 10 week period to accommodate construction. The closure is scheduled to start on August 2, 2016 with the indoor pool re-opening on October 11, 2016. The following items have been implemented to minimize the level of impact to the residents:

Swimming Lessons

Lessons have been increased at the Audley Recreation Centre, Ajax Community Centre and the Memorial Outdoor Pool to accommodate the lessons that will be unavailable at the McLean Community Centre.

➤ Lane and Public Swims

Swims will be deferred from the McLean Community Centre to the regular swim schedule at the Audley Recreation Centre and Ajax Community Centre.

> Fall Swim Program

The fall swim programs at the McLean Community Centre have been deferred to start October 11. This will allow participants to receive a 10 week program which is consistent with the programs offered at the Audley Recreation Centre and Ajax Community Centre starting September 24.

FINANCIAL IMPLICATIONS:

Capital Account No. 981011.5810 MCC ~ Pool Refurbishment

Approved Capital Budget \$ 770,000.00

Contract (net of HST rebate) \$ 656,481.24

Contingency \$ 98,472.19 <u>\$ 754,953.43</u>

Available Budget \$ 15,046.57

A 15% project contingency has been allocated to this award to ensure sufficient funding is available to address the potential risk factors that may be encountered during the construction. Risk factors include:

- Whirlpool basin concrete repairs;
- Extensive pool deck subfloor repair and preparation;
- Additional waterproofing membrane; and
- > Site conditions different than those anticipated.

The available budget will be used for the communication strategy signage.

The Capital Detail Sheet is attached for information.

COMMUNICATION ISSUES:

Staff will work with corporate communications to develop a communication plan to ensure that the public is informed of the project progress and timelines.

The General Contractor will be responsible to install non-transparent window coverings with signage that will include a description of the work and provide the public with the contact information for general inquiries.

CONCLUSION:

It is the recommendation of staff that Canada Construction Limited be awarded the contract for the MCC Pool Refurbishment, being the lowest bidder meeting the minimum specifications.

ATTACHMENTS:

| Capital Account 981011 Detail Sheet | |
|---|--|
| | |
| Ryan Cole – OES Capital Projects Technologist | |
| Dave Meredith – Director of Operations & Environmental Services | |

TOWN OF AJAX 2016 CAPITAL BUDGET / 2017-2020 LONG RANGE CAPITAL FORECAST DETAIL SHEET

Department Operations & Environmental Services

Section Infrastructure

Project Name MCC Pool Refurbishment

Submitted By Catherine Bridgeman, Manager of Infrastructure & Capital Projects

Start Year 2016 Project Number 0981011

PROJECT DESCRIPTION / JUSTIFICATION

McLean Community Centre was opened in 1994 and the Aquatics Hall (Natatorium) is the original construction. Staff are recommending proposed improvements with the following:

Pool Deck Tiles

The pool deck at MCC is 20 years old and requires substantial annual repairs and maintenance to replace broken tiles and missing grout. As the grout continues to deteriorate, water accumulates under the tiles and causes ongoing cracking. Staff are recommending removal of the existing tiles, re-leveling of the pool deck with an epoxy skim coat and the installation of new non slip unglazed porcelain tile on the pool deck, walls, lifeguard office, and lifeguard change room and hallway. Regrout main pool and tot basin.

Ceiling Replacement/Acoustic Panels/Millwork/Paint

The existing lifeguard office at MCC has experienced leaks from the mechanical equipment located above the room over the years and is now in need of replacement. Staff are recommending a new suspended ceiling with mold and mildew resistant ceiling tiles.

Acoustic Panels

The existing pool area contains acoustic panels that have reached the end of their useful life cycle. Staff are recommending the replacement of the acoustic panels with new mold and mildew resistant panels.

Millwork Replacement

The existing millwork in the lifeguard office has deteriorated due to the corrosive nature of the natatorium and is in need of replacement. Staff are recommending that the new millwork be constructed using a marine grade phenolic with powder coated or epoxy coated resin steel frames.

Painting

The painted walls of the natatorium have reached the end of their useful life cycle and are required to be repainted. Staff are recommending the walls be painted using a primer and paint that is water and mildew resistant and recommended for use in an indoor pool application.

The Pool will be closed for a period of 8-10 weeks in the summer of 2016 to facilitate this project, while the Memorial Pool is available to accommodate programming that would have been at the McLean pool.

| EXPENDITURES / FUNDING | | | | | | |
|------------------------------|---------|------|------|------|------|---------|
| | 2016 | 2017 | 2018 | 2019 | 2020 | Total |
| Total Expenditures | 770,000 | | | | | 770,000 |
| Building Maintenance Reserve | 770,000 | | | | | 770,000 |
| Total Funding | 770,000 | | | | | 770,000 |
| | | | | | | |



REPORT TO: General Government Committee

SUBMITTED BY: Dave Meredith,

Director, Operations and Environmental Services

PREPARED BY: Jade Schofield, MSc

Environmental Sustainability Coordinator

SUBJECT: Westney Road Landfill Monitoring Program Update

WARD(S): 3

DATE OF MEETING: May 9th 2016

REFERENCE: Operating Account #3701-4108

GGC Resolution May 23, 2006 - Former Westney Road Landfill GGC Resolution April 23, 2007 - Contract Award to Ecoplans Ltd. GGC Resolution April 26, 2011 – Contract award to G2S Env. Ltd. Staff Contract Award Report – November 24, 2014 – Contract

award to G2S Env. Ltd.

Urban Forestry Management Plan (2012)

RECOMMENDATION:

1. That the Westney Road Landfill Monitoring Program Update be received for information.

BACKGROUND:

The former waste disposal site on Westney Road was in operation from 1952 until April 4, 1970. The location of the landfill is illustrated in Figure 1. The site has been graded and capped with topsoil and a grass cover. The surface area of the site is about 2.5 hectares. The toe of the landfill is in the floodplain of Duffins Creek with the higher eastern portion resting on the former top of bank. The site was covered with topsoil after the operation ceased in 1970 and is currently partially programmed as a dog leash-free area.

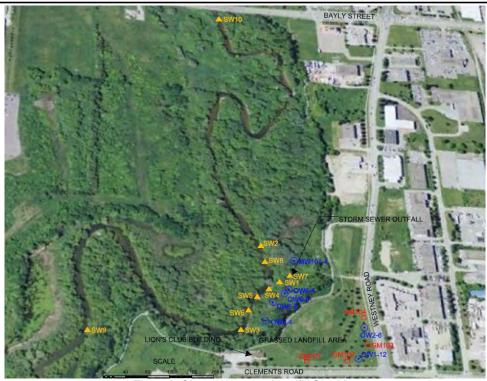


Figure 1 Closed Westney Landfill Site Map

The Ministry of the Environment and Climate Change (MOECC) requires that all former landfill sites be monitored for leachate and gas control as identified in the Landfill Standards Guidelines for Regulatory and Approval Requirements for Landfill Sites. Staff retained Gartner Lee Consulting in 2006 to develop a monitoring program that would meet current MOECC standards and guidelines.

On May 23rd, 2006, Council passed the following resolution:

- 1. That Council endorse an annual monitoring program, to commence in 2006, as detailed on page 3 of the Gartner Lee Limited report dated February 15th, 2006.
- 2. That a detailed monitoring report be presented to council every three (3) years, commencing in the fall of 2006.
- 3. That council be advised that the costs associated with the implementation of the monitoring program will be approximately \$20,000 annually.

Staff subsequently produced a series of tenders for a three year monitoring programs based on the recommendations described in the final report by Gartner Lee in 2006. Gartner Lee's monitoring program incorporates current MOECC standards along with suggested testing identified in a previous consultant's report from 1993 (Dames and Moore).

The monitoring program consists of periodic surface water quality testing, groundwater testing and gas monitoring. Nine (9) locations have been identified for quarterly water quality testing and a groundwater test is taken from seven existing wells annually. Finally, four existing gas

monitoring wells are monitored for gas migration during the winter months of December, January, February and March (Figure 1 details surface water testing locations, groundwater testing locations and gas monitoring well locations).

DISCUSSION:

The primary function of the landfill testing program is to assess any subsurface landfill leachate and gas migration through quarterly testing of groundwater and surface water and annual soil gas monitoring. Leachate can be defined as liquid material produced by water percolating through waste. Landfill gas is produced by decomposing organic material and is slowly released into the atmosphere after being filtered through the soil and ground cover. Problems can arise during winter months when water pockets freeze and prevent gas from dissipating through normal channels. This may force the gas to migrate underground to alternative release points. Gas monitoring is performed during the winter months to ensure that the landfill gas is not migrating underground. Data reports have been received subsequent to each monitoring event from 2007 to 2014 and no gas migration has been observed.

Surface water sampling and groundwater measurements were completed on periodic dates throughout the same period of 2007 through 2015. All surface water samples were compared to criteria in the current Provincial Water Quality Objectives.

Groundwater samples were collected annually from 2007 through 2015. Depth to groundwater levels (as measured from the top of the observation well) were recorded during each monitoring event and water samples were compared to the current Provincial Water Quality Objectives

Soil Gas monitoring was undertaken at four existing gas wells on the site during periods of predicted ground conditions in 2007 through 2011. In 2012, these wells were replaced with four new gas monitoring wells and annual testing resumed using the new observation wells. Soil gas measurements were collected using a Gem 5000 landfill gas monitoring unit.

The results of the monitoring program were consistent with the findings of other landfills in the Province of Ontario. After each round of testing, the Town of Ajax forwarded the results to the Ministry of the Environment.

The following is a summary of these findings as well as a number of recommendations to be addressed during the next three (3) years:

i) GROUNDWATER FLOW

Based on the observed groundwater levels collected from on-site wells during the monitoring period, groundwater flows east to west across the site towards Duffins Creek. A total of seven (7) monitoring wells exist on site and are used for groundwater sampling.

The results of the monitoring program show that the shallow groundwater beneath the landfill is impacted with leachate, which discharges into Duffins Creek. These findings and concentrations are consistent with landfill testing results in other jurisdictions.

ii) SURFACE WATER

Limited amounts of overland leachate seepage has been identified at the toe of slope of the closed landfill within a perimeter ditch situated within the floodplain. Diluted surface water in this ditch flows to Duffins Creek during stormwater events.

Samples collected at the locations upstream from the landfill location were measured to have similar or greater concentrations as compared to the furthest downstream location.

Recent changes in the Ministry of the Environment's monitoring regulations have resulted in requests for additional samples to be collected and analyzed for Lead, Arsenic, Volatile Organic Compounds and Acute Toxicity Tests (for fresh water aquatic life). The expanded testing parameters have been included over the last monitoring term of three (3) years.

iii) SOIL GAS MONITORING

Soil gas measurements were recorded at locations GM1 through GM4 over the last seven years in accordance with MOECC guidelines for landfill monitoring.

Data reports have been received subsequent to each monitoring event from 2007 to 2014 and no gas migration has been observed.

iv) MONITRING WELL MAINTENANCE

In 2014, a conditions assessment of the monitoring wells was conducted, as a result some minor repairs took place in the summer of 2015. These repairs were included in correspondence to the MOECC.

v) AESTHETIC REMEDIATION

Through the Urban Forestry Management Plan the Westney Landfill site was identified as potential plantable space. In 2015, the Town received financial support for community tree planting from Forests Ontario, Honda Canada, and Metro East. Prior to this work taking place a soils assessment was conducted to determine site suitability for vegetation and safety requirements. During two events in 2015 approximately 2,400 trees were planted on Town property by community volunteers. Planting native trees and shrubs in this area will help reduce the spread of invasive species such as Buckthorn, as well as increase the aesthetics of this are for the purpose of recreation at the Westney Leash Free dog park and along the Duffins Trail.

FINANCIAL IMPLICATIONS:

The Closed Westney Road Landfill Monitoring Program is funded through the annual operating budget for Operations and Environmental Services. Costs associated with the above mentioned recommendations have been incorporated into the 2016 budget.

COMMUNICATION ISSUES:

Staff have circulated all monitoring results to the Ministry of the Environment and Climate Change and the Toronto Region Conservation Authority. The recommendation from both agencies is to continue the monitoring program and record the impact that the Westney Road Landfill is having on the Duffins Creek and surrounding area. Staff will continue to work with the MOECC and TRCA as the Town continues to monitor this area.

CONCLUSION:

While it has been identified that limited landfill leachate is impacting ground water and surface water, the water quality within Duffins Creek measured upstream from the landfill area is comparable to that measured downstream from the landfill area monitoring stations.

Staff will continue work with the Ministry of the Environment and Climate Change to examine leachate mitigation, and will also look to implement the recommendations of the consultant's report in the coming years.

| Dave Meredith |
|---|
| Director, Operations & Environmental Services |
| |
| |
| Cathorino Pridgomon |
| Catherine Bridgeman |
| Manager, Infrastructure and Asset Managemen |
| |
| |
| Jade Schofield, MSc |
| , |
| Environmental Sustainability Coordinator |

TOWN OF AJAX REPORT



REPORT TO: General Government Committee

SUBMITTED BY: Paul Allore

Director of Planning and Development Services

PREPARED BY: Ranil Fernando

Capital Projects Coordinator

SUBJECT: Contract Award – Local Road Resurfacing 2016 and Rotary Park

Trail/Parking Improvements

WARD(S): 1, 3 and 4

DATE OF MEETING: May 9th, 2016

REFERENCE: Capital Account No 975611 Road Resurfacing - 2016

Capital Account No 975711 Road Resurfacing - 2016

Capital Account No 975511 Rotary Park – Trail/Parking Improvements

RFT No. 16017 Local Road Resurfacing

RECOMMENDATION:

That Council award the contract for Local Road Resurfacing 2016 and Rotary Park Trail/Parking Improvements, to Four Seasons Development Inc. in the amount of \$1,703,197.02 (inclusive of all taxes).

BACKGROUND:

The resurfacing of municipal roads and associated curb and sidewalk repairs are a critical component of the Town's infrastructure maintenance program. The roads to be resurfaced and/or reconstructed each year are prioritized based on the Town's Pavement Management System and coordinated with the Region of Durham's construction projects. The asphalt resurfacing work for 2016 include sections of Lake Driveway West, Rotherglen Road South, Clements Road West, Green Court, Ravenscroft Road, Clover Ridge Drive, and Foord Drive. Subsequent to the 2016 Capital budget approval, additional works were identified for a section of Follett Court, Lewin Crescent and Tulloch Drive and included in this tender. The works were identified by residents and verified by staff as necessary for completion in 2016.

In addition, the Rotary Park entrance driveway from Lake Driveway to the boat launch is to be resurfaced with new asphalt paving and a new 3.0 metre wide asphalt multi-use trail will be constructed adjacent to the driveway. Currently, the Rotary Park Driveway and the boat launch parking lot is deteriorated with potholes and localized ponding. The resurfacing of the driveway is an important and necessary component of the Towns maintenance program. The Trans Canada trail signage component of the project will include the total distance of the Trans Canada Trail within the Town of Ajax. Signage installation will begin at the southern terminus of Frisco

Road and will end at the Greenwood Conservation Area, a distance of approximately 15 km. The signage will be provided by the Trans Canada Trail Foundation.

DISCUSSION:

Request for Tender (RFT) documents were issued to 12 prospective bidders with bids being received back from four of these, prior to the closing on April 26, 2016. Upon review of the four bids received, a number of arithmetical errors were discovered, resulting in a Corrected Total Tender Amount.

Listed below is a summary of the bids received:

| NAME OF BIDDER | TOTAL TENDER AMOUNT | CORRECTED TOTAL TENDER AMOUNT |
|------------------------------------|---------------------|-------------------------------|
| Four Seasons Site Development Ltd | \$1,462,885.57 | \$1,703,197.02 |
| Furfari Paving Co. Ltd. | \$1,847,221.76 | \$1,847,221.76 |
| D. Crupi & Sons Ltd. | \$1,949,601.83 | \$1,949,601.54 |
| Brennan Paving & Construction Ltd. | \$2,447,987.29 | \$2,434,472.59 |

FINANCIAL IMPLICATIONS:

Approved Capital Account No. 975611 – Road Resurfacing 2016

| | \$1,342,000.00 |
|-------------------------|---------------------|
| | |
| \$44,906.69 | <u>\$44,906.69</u> |
| | \$1,297,093.31 |
| | |
| \$711,810.18 | |
| \$142,362.04 | <u>\$854,172.22</u> |
| | |
| | <u>\$442,921.09</u> |
| Road Resurfacing 2016 – | FGT |
| | \$1,063,000.00 |
| | |
| \$642.532.99 | |
| | \$771,039.58 |
| Ţ · _ 0,000.00 | +, |
| | <u>\$291,960.42</u> |
| | \$711,810.18 |

A contingency amount has been allocated for these projects. The specific amount for Local Road Resurfacing has been set at 20% of the net contract price due to the possibility of poor base asphalt conditions and soft spots that could develop once the asphalt surface has been removed. Over-runs may occur on the estimated quantities of asphalt and granular materials including placement and compaction to repair unforeseen deteriorated areas and for miscellaneous large repairs that may occur on other roads in the Town throughout the year.

Available budget will be used for future contract awards required for material testing. The work will include quality control for these projects and geotechnical investigations for future projects.

The road resurfacing is under budget as the estimates were based on 2015 bid submissions and the March 2016 asphalt cement prices have decreased 23% compared with the same time period of 2015.

Approved Capital Account No. 975511 - Rotary Park - Trail/Parking Improvements

| Approved Capital Budget | | \$255,000.00 |
|---|-----------------------------|---------------------|
| Contract (net of HST rebate) Contingency (20%) | \$179,438.49 \$35,887.70 | <u>\$215,326.18</u> |
| Available Budget | | <u>\$39,673.82</u> |

A 20% contingency has been identified to ensure sufficient funding is available to address site specific issues that can be encountered during construction. Risk factors for this project include:

- Unusual soil or base conditions, site conditions different than those anticipated
- Poor base asphalt conditions and soft spots
- Replacement of existing bollards along the entrance driveway into Rotary Park as needed due to deteriorating conditions
- Replacement of broken curb stops along the entrance driveway into Rotary Park as needed
- Constructing additional swales as needed to improve any drainage issues along entrance driveway into Rotary Park
- Unanticipated utilities encountered during the construction,
- Additional environmental management required due to proximity to the Lake during paving and grinding operations at the boat launch parking area, and/or
- Poor weather conditions.

These risks can cause delays, necessitating additional material and labour associated with construction.

The Capital Detail Sheets are attached for information.

COMMUNICATION ISSUES:

Minor disruptions due to dust, noise, driveway access and localized lane closures will be experienced by local residents and motorists. Every effort, however, will be made to keep these inconveniences to a minimum throughout the process.

| Subject: Contract Award – Local Road Resurfacing 2016 and Rotary Park – Trail/Parking Improve | vement | mpro | ina I | Parki | Γrail/Γ | | Park | arv | Ro | and | 2016 | acino | esurfa | d Re | Road | ocal | l – L | Award | ontract | ct: C | ubie | Sι |
|---|--------|------|-------|-------|---------|--|------|-----|----|-----|------|-------|--------|------|------|------|-------|-------|---------|-------|------|----|
|---|--------|------|-------|-------|---------|--|------|-----|----|-----|------|-------|--------|------|------|------|-------|-------|---------|-------|------|----|

Page | 4

Communications will include the delivery of a construction notice to all adjacent residents, the provision of a construction outline and schedule on the Town's website and where appropriate construction notice signs will be posted. The Town's contractor will be instructed to ensure that adequate safety measures are in place to protect the public for each of the projects.

CONCLUSION:

It is the recommendation of staff that Four Seasons Site Development Ltd. be awarded the contract for Local Road Resurfacing 2016 and Rotary Park Trail/Parking Improvements, being the lowest bidder meeting minimum specifications.

ATTACHMENTS:

| ATT-1: Capital Detail Sheet - Account No 975611 Road Resurfacing – 2016 ATT-2: Capital Detail Sheet - Account No 975711 Road Resurfacing – 2016 ATT-3: Capital Detail Sheet - Account No 975511 Rotary Park – Trail/Parking Improvements |
|--|
| Ranil Fernando, P.Eng. – Capital Projects Coordinator |
| Carol Coleman, P.Eng. – Manager of Engineering, Capital Projects |
| Paul Allore, MCIP, RPP – Director of Planning and Development Services |

Department Planning & Development Services

Section Engineering Services
Project Name Road Resurfacing - 2016

Submitted By Carol Coleman, Manager of Engineering - Capital Projects

Start Year 2016 Project Number 0975611

PROJECT DESCRIPTION / JUSTIFICATION

The resurfacing of municipal roads and associated curb and sidewalk repairs are a critical component of the Town's infrastructure maintenance program. The roads to be resurfaced and/or reconstructed each year are prioritized based on the Town's Pavement Management System and coordinated with the Region of Durham's construction projects. The Town's road resurfacing requirements are funded annually through the Roads Maintenance Reserve and Federal Gas Tax Reserve.

Roads Maintenance Reserve:

| Road | From | То | Treatment | | | | |
|---|----------------------|----------------------|------------------|--|--|--|--|
| Ravenscroft Road | Westney Road North | Delaney Drive | Mill and Overlay | | | | |
| Clover Ridge Drive | Harwood Avenue South | Dreyer Drive | Resurface | | | | |
| Foord Road | Clements Road East | Pickering Beach Road | Resurface | | | | |
| Crack Sealing and Slurry Sealing Various Location | | | | | | | |
| Pavement Management S | System Update | | | | | | |

| | EXP | ENDITURES / FUI | NDING | | | |
|---------------------------|-----------|-----------------|-------|------|------|-----------|
| | 2016 | 2017 | 2018 | 2019 | 2020 | Total |
| Total Expenditures | 1,342,000 | | | | | 1,342,000 |
| Roads Maintenance Reserve | 1,342,000 | | | | | 1,342,000 |
| Total Funding | 1,342,000 | | | | | 1,342,000 |
| Total Fulluling | 1,342,000 | | | | | 1,342 |

Department Planning & Development Services

Section Engineering Services

Project Name Road Resurfacing - 2016 - FGT

Submitted By Carol Coleman, Manager of Engineering - Capital Projects

Start Year 2016 Project Number 0975711

PROJECT DESCRIPTION / JUSTIFICATION

The resurfacing of municipal roads and associated curb and sidewalk repairs are a critical component of the Town's infrastructure maintenance program. The roads to be resurfaced and/or reconstructed each year are prioritized based on the Town's Pavement Management System and coordinated with the Region of Durham's construction projects. The Town's road resurfacing requirements are funded annually through the Roads Maintenance Reserve and Federal Gas Tax Reserve.

Federal Gax Tax Reserve Fund:

| Road | From | То | Treatment |
|-----------------------|--------------------|----------------|------------------|
| Lake Driveway West | Westney Road South | Parkes Drive | Mill and Overlay |
| Rotherglen Road South | Kingston Road West | Bramwell Drive | Resurface |
| Clements Road West | Westney Road South | Green Court | Mill and Overlay |
| Green Court | Clements Road West | End | Mill and Overlay |

| | EXP | ENDITURES / FUI | NDING | | | |
|------------------------------|-----------|-----------------|-------|------|------|-----------|
| | 2016 | 2017 | 2018 | 2019 | 2020 | Total |
| Total Expenditures | 1,063,000 | | | | | 1,063,000 |
| Federal Gas Tax Reserve Fund | 1,063,000 | | | | | 1,063,000 |
| Total Funding | 1,063,000 | | | | | 1,063,000 |
| | | | | | | |

Department Planning & Development Services

Section Design Services

Project Name Rotary Park-Trail/Parking Impr
Submitted By Andrew Jackson, Landscape Architect

Start Year 2016 Project Number 0975511

PROJECT DESCRIPTION / JUSTIFICATION

Scope: The existing entrance driveway from Lake Driveway to the boat launch parking lot is to be re-surfaced with new asphalt paving. A new 3.0 metre wide asphalt multi-use trail will be constructed adjacent to the driveway. The trail component will include new Trans Canada Trail signage.

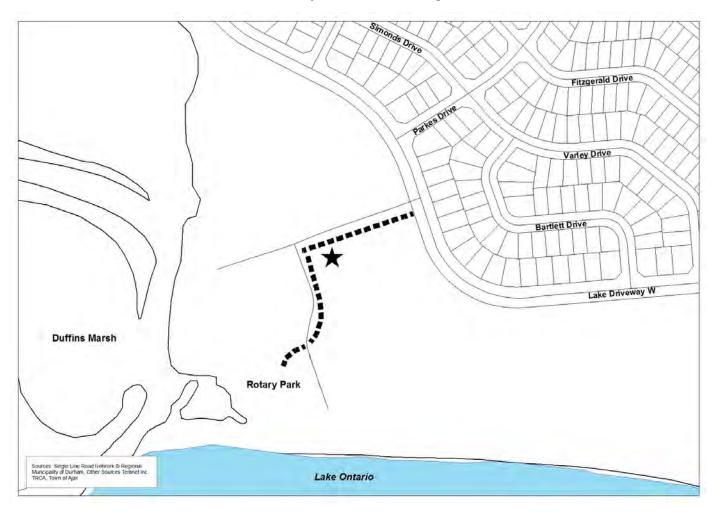
Rationale: The re-surfacing of the driveway is an important and necessary component of the Town's maintenance program. As old asphalt paving ages, it deteriorates causing settlements, potholes, ponding and a breakdown of the parking surface which leads to an uneven surface. The new paving will provide a safe and efficient mode of travel into the park. The new trail will provide a multi-use connection into the park, creating a safe off-road connection to the various park amenities. The new trail signage will provide enhanced directional signage for way-finding. The signs will be provided by the Trans Canada Trail Foundation.

References: This project satisfies Section 2.2.6.1.e of the *Town of Ajax Official Plan* by further developing an interconnected trail and pathway system that connects people to places within and adjacent to Ajax. This project is in keeping with the policies of *The Ajax Pedestrian and Bicycle Master Plan 2010* and responds to the *Recreation, Parks and Culture Master Plan's* goal of enhancing a comprehensive trail system (Goal 7).

Schedule: Construction: 2016

| | EXPI | ENDITURES / FUN | IDING | | | |
|------------------------------------|---------|-----------------|-------|-------|-------|---------|
| | 2016 | 2017 | 2018 | 2019 | 2020 | Total |
| Total Expenditures | 255,000 | | | | | 255,000 |
| Development Reserve | 75,000 | | | | | 75,000 |
| General Infrastructure Maintenance | 180,000 | | | | | 180,000 |
| Total Funding | 255,000 | | | | | 255,000 |
| Annual Operating Costs | 1,000 | 2,000 | 2,000 | 2,000 | 2,000 | |

Rotary Park - Trail/Parking



TOWN OF AJAX REPORT



REPORT TO: General Government Committee

SUBMITTED BY: Paul Allore, MCIP, RPP

Director of Planning and Development Services

PREPARED BY: Gary Muller, MCIP, RPP

Manager of Planning

SUBJECT: Encouraging the Delivery of Affordable Housing in Ajax

WARDS: all

DATE OF MEETING: May 9, 2016

REFERENCES: Community Action Plan: Strategic Objective - Strategic Development and

Economic Prosperity - Identify housing needs to accelerate proposals that

satisfy gaps

RECOMMENDATIONS:

1) That the report to General Government Committee entitled "Encouraging the Delivery of Affordable Housing in Ajax" dated May 9, 2016 be received for information.

- 2) That the Province of Ontario be advised that the Town of Ajax supports the proposed amendments to the *Planning Act* under Bill 39 to authorize the use of inclusionary zoning by local municipalities, to enable the provision of additional affordable housing as a component of privately initiated development proposals, subject to the following:
 - a) That proposed subsection 37.1(2)(b) that includes the requirement that construction require a site-specific by-law or by-law amendment be removed;
- 3) That upon the passage of provincial legislation that enables the use of inclusionary zoning, that staff be authorized to undertake public consultation to inform the preparation of the requisite supporting official plan policies;
- 4) That upon the passage of provincial legislation to amend Section 37(1) of the *Planning Act* regarding density bonusing, that staff be authorized to prepare implementation guidelines to provide a consistent municipal approach toward the application of community benefits, including affordable housing, in exchange for increases in height and/or density;
- 5) That a copy of this report be forwarded to the Ministry of Municipal Affairs and Housing, the Region of Durham Housing Services and the Building Industry and Land Development Association (BILD).

1. BACKGROUND

On March 22, 2016, the federal government released its budget which included new investment in affordable housing and made a commitment toward the establishment of a National Housing Strategy. Among other matters, the 2016 federal budget earmarked funds which included:

- Doubling the investment in affordable housing
- Increasing affordable housing for seniors
- Supporting renovations to existing social housing
- Providing rent subsidies for federally administered social housing providers
- Funding to support the construction of affordable rental housing
- Funding to support shelters for victims of violence
- Funding to assist the homeless to find stable housing.

Also in March of 2016, the Minister of Municipal Affairs and Housing released an Update to Ontario's Long Term Affordable Housing Strategy following the 2016 provincial budget which identified \$178 million in funding for affordable housing initiatives over three years.

With this renewed support at the federal and provincial levels for affordable housing, staff were asked to prepare a report that outlines what the Town can do to encourage affordable housing. The purpose of this report is to identify and recommend a range of tools that can be applied (or that have already been applied) by the Town, to complement the efforts of senior levels of government and the mandates of other agencies.

2. CONTEXT

Affordable housing commonly refers to rental housing for low- and moderate-income households where the cost of housing does not exceed 30% of household income (CMHC, 2009). However, affordable housing not only includes affordable rental housing, it also includes social housing, near market rental and affordable homeownership.

Although new figures from Statistics Canada following the 2016 Census that reflect updated housing statistics for Ajax will not likely be released for another year, available statistics from CMHC and other sources reveal some disconcerting facts:

- In 2011, approximately 32% of owned households in Ajax were reported as being below the affordability standard.¹ However, 70.8% of reported rental households fell below this standard.²
- Average rents have increased by 3.9% from October, 2013 to October, 2015.³
- Private apartment vacancy rates have dropped from 1.1% in October of 2014 to 1.0% by October of 2015.⁴
- Median household incomes have increased by only 0.6% from 2011 to 2014.

Recent trends regarding the price of new housing reveal that the affordability gap is widening. The average price of a new single-detached dwelling in 2008 in Ajax was \$408,268.5 In contrast,

According to CMHC, the metric for affordable housing is housing that costs less than 30% of before-tax household income.

² Core Housing Need - Ajax (2011 Statistics Canada Census)

Canada Mortgage and Housing Corporation, Rental Market Report, Greater Toronto Area (Pickering, Ajax, Uxbridge). Fall, 2015).

⁴ Ibid.

Durham Region Planning Department - Durham Region Profile: Demographics and Socio-Economic Data, September, 2009. Table 3.18.

the CMHC reported that the median price for a newly constructed absorbed single-detached dwelling in Ajax in January 2016 was \$626,599⁶ (an increase of 53.5%).

Consistent with demographic trends that have witnessed the aging of the baby boom generation, an estimated 13,500 Ajax residents (or 10.7% of the population) are between the ages of 50 and 65. Of increasing importance is the growing population cohort over the age of 65, where approximately 12,920 Ajax residents (or 10.3% of the population) are within this age range. However, the affordability of Senior's Housing has become out of reach for many seniors on fixed incomes, necessitating an increasing reliance on live-in caregiving or other home care solutions. Average monthly rents in 2015 for standard senior spaces ranged from \$1,528 for semi-private or ward accommodations, to \$3,248 for a private/studio space, to \$4,038 for a one bedroom suite. Average rent for a Heavy Care Space in Durham Region was \$4,496 per month in 2015⁷.

2.1 **Provincial Policy Statement**

The Provincial Policy Statement (1.4.3) indicates that planning authorities shall provide for an appropriate range and mix of housing types and densities to meet projected requirements of current and future residents of the regional market area by establishing and implementing minimum targets for the provision of housing which is affordable to low and moderate income households.

2.2 **Durham Regional Official Plan**

Section 4.2.4 of the Durham Regional Official Plan indicates that Regional Council shall require at least 25% of all new residential units produced within each area municipality, to be affordable to low and moderate income households.8 The term "Affordable" means:

- a) in the case of ownership housing, the least expensive of:
 - i) housing for which the purchase price results in annual accommodation costs which do not exceed 30% of gross annual household income for low and moderate income households; or
 - ii) housing for which the purchase price is at least 10% below the average purchase price of a resale unit in the Region; and
- b) in the case of rental housing, the least expensive of:
 - i) a unit for which the rent does not exceed 30% of gross annual household income for low and moderate income households; or
 - ii) a unit for which the rent is at or below the average market rent of a unit in the Region.

The Town's achievement of the above criteria will be examined as part of the Town's next Housing Report, which will follow the completion and reporting of statistics from the 2016 Census.

CMHC New Housing Construction Activity for Ajax, March, 2016. (CMHC Starts and Completions Survey/Market Absorption Survey)

A 'Heavy Care Space' is a space where a resident is paying an extra amount to receive high level care (1.5 hours or more of care per day). Examples of conditions that could require high-level care include Alzheimer's, dementia and reduced mobility. Source: Canada Mortgage and Housing Corporation Seniors Housing Report, 2015.

Within the Durham Regional Official Plan, Low to Moderate Income Households means:

a) in the case of ownership housing, households with incomes in the lowest 60% of the income distribution for the Region; or b) in the case of rental housing, households with incomes in the lowest 60% of the income distribution for renter households for the Region.

2.3 Durham Region Housing Plan 2014-2024

In June, 2014 Regional Council approved "At Home in Durham – the Durham Region Housing Plan 2014-2024" (Report 2014-J-16) in accordance with the Region's requirement to prepare a housing and homelessness plan under the Housing Services Act, 2011 and a housing strategy under the Growth Plan for the Greater Golden Horseshoe. The four goals of the Durham Housing Plan are an outcome of the Durham Housing Review and community consultations which are described below:

Goal 1: End Homelessness in Durham

- Develop long-term innovative approaches to improve the ability of households to access housing
- Develop long-term innovative approaches to improve the ability of households to retain their housing.

Goal 2: Affordable Rent for Everyone

- Increase the privately funded affordable rental housing supply
- Increase federal and provincial government-funded, affordable rental housing supply
- Increase rental assistance for low income households

Goal 3: Greater Housing Choice

- Diversify housing options by type, size and tenure
- Improve access to safe and secure housing that supports the needs of a diverse community

Goal 4: Strong and Vibrant Neighbourhoods

- Preserve the private rental housing stock
- Strengthen the social housing sector
- Support an energy efficient, environmentally sustainable rental housing stock

A series of objectives are also identified within the Plan which are oriented toward creating an enabling environment for affordable housing solutions. The Durham Housing Plan outlines the roles of the area municipalities as partners in providing affordable housing as follows:

- Implementation of the Region's minimum target for affordable housing units produced within each area municipality
- Local planning and development approvals, including incentives for the development of affordable housing
- Zoning by-laws, including those that permit secondary and garden suites
- Property standards and local by-law enforcement.

3. DISCUSSION:

By its very nature, approaches to encourage and support additional affordable housing is broadly based and multi-faceted. The Town is limited in its financial ability to deliver additional affordable housing units, but possesses the ability through regulatory and other tools to support the delivery

of affordable housing by the development community or by other agencies or housing providers through a variety of mechanisms.

3.1 Ajax Official Plan Policies

The Town of Ajax Official Plan includes policies which support the provision of affordable housing. Section 3.1.1 includes the Town's goals and objectives for its Residential areas and indicates that the Town will promote urban intensification in appropriately designated residential and residential mixed use areas to broaden the range and mix of housing types, and to improve opportunities for more affordable forms of housing. In so doing, the Town will strive to achieve a minimum affordable housing target of 25% for low and moderate income households (3.1.1 h).

To ensure that the Town maintains a current understanding of the housing market, Section 3.1.2 of the Town of Ajax Official Plan indicates that the Town shall, from time to time, prepare a Housing Report that may include the following:

- a) an assessment of the total number of new dwelling units built by type and tenure
- b) a summary of the average housing prices and rents by housing type
- c) an inventory of the production of special needs housing
- d) an inventory of the production of housing which is considered affordable.

In order to provide current demographic and housing information for Ajax, the next Housing Report will follow the release of statistics from the 2016 Census.

In order to protect from the unnecessary conversion of rental housing to condominium tenure, Section 5.0 of the Town of Ajax Official Plan (Required Studies) includes a requirement for a Rental Housing Conversion Study, to ensure that an adequate supply of affordable and mid-range rental accommodations are available in the Town. Any proposal for the conversion of rental units to condominium tenure would be required to justify the need for the conversion, and demonstrate that there are sufficient rental units to meet the Town's long-term affordable housing needs.

The above policies are in keeping with the goals of the Regional Housing Plan which encourage area municipalities to review and incorporate Official Plan policies, consistent with the Regional Official Plan, that protect the existing supply of residential rental units from conversion to condominium tenure.

3.2 Development Incentives

3.1.1 Community Improvement Plans

Passed under Section 28 of the *Planning Act*, the Downtown CIP allows the Town to:

- Acquire, hold, clear, grade or otherwise prepare land for community improvement
- Construct, repair, rehabilitate or improve buildings on land acquired or held by it in conformity with the community improvement plan
- Sell, lease or otherwise dispose of any land acquired or held by it in conformity with the community improvement plan
- Make grants or loans to registered owners, assessed owners and tenants of lands and buildings to pay for the whole or any part of the cost of rehabilitating such lands and buildings in conformity with the Community Improvement Plan.

The incentives under the Downtown Community Improvement Plan were instrumental in facilitating the provision of affordable housing at Hubbard Station (50 Station Street), owned and

operated by the Ajax Municipal Housing Corporation, and new market rental units under construction by Medallion Developments at *Vision at Pat Bayly Square*.

The Region of Durham's Regional Revitalization Program is also in place, which targets Regional investment to area municipally-led Community Improvement Projects, including affordable rental housing. These incentives were provided as part of the above-mentioned Medallion development to cover extraordinary servicing costs associated with the development.

3.2.1 Density Bonusing

Currently, section 37 of the *Planning Act* authorizes municipalities to undertake density bonusing, as follows:

37. (1) The council of a local municipality may, in a by-law passed under section 34, authorize increases in the height and density of development otherwise permitted by the by-law that will be permitted in return for the provision of such facilities, services or matters as are set out in the by-law.

Condition

(2) A by-law shall not contain the provisions mentioned in subsection (1) unless there is an official plan in effect in the local municipality that contains provisions relating to the authorization of increases in height and density of development.

Agreements

(3) Where an owner of land elects to provide facilities, services or matters in return for an increase in the height or density of development, the municipality may require the owner to enter into one or more agreements with the municipality dealing with the facilities, services or matters.

Registration of agreement

(4) Any agreement entered into under subsection (3) may be registered against the land to which it applies and the municipality is entitled to enforce the provisions thereof against the owner and, subject to the provisions of the Registry Act and the Land Titles Act, any and all subsequent owners of the land. R.S.O. 1990, c. P.13, s. 37.

The approach is incentive-based, whereby increases in density are granted in exchange for public benefits.

The Town of Ajax Official Plan includes policies under Section 7.1.2 'Height and Density Bonuses', which indicates that a height and/or density bonus from the maximums of this Official Plan may be considered by the Town within all the land use designations, under the provisions of the *Planning Act*, provided that the proposed development includes a 'significant public benefit'. A significant public benefit may include, among other matters the provision of special needs housing, new affordable ownership housing, new affordable rental housing, the preservation of existing rental housing; and other benefits including any other public benefit deemed suitable by Council. The extent of the permitted height and/or density bonuses is based on compatibility with existing adjacent development and the extent to which the development advances the stated goals and objectives of the Town.

Development proposals in Ajax that have applied section 37 provisions have thus far been limited to one. Increases in density on the lands at the south west corner of Taunton Road and

Ravenscroft Road were approved in exchange for public benefits including the provision of 300 seniors housing units, the dedication of environmental lands, the provision of trails, funding for public art, etc. However, development on this site has been stalled and with the exception of the dedication of the environmental lands, the other public benefits are yet to be realized.

In time, this tool will be of increasing importance as intensification projects become more prevalent. However, section 37 contributions may not likely be sought within Community Improvement Project Areas, as requirements for additional developer contributions, financial or otherwise, from density increases could take away from financial incentives to facilitate development encouraged under the CIP program.

A number of other municipalities (especially Toronto) have extensive experience in the application of section 37 bonusing provisions. In a number of cases, decisions are informed by a detailed set of implementation guidelines and a protocol to ensure that the provisions are applied consistently. In preparation for its use, staff are recommending that the Town also prepare guidelines to assist in future section 37 negotiations. These guidelines can, for example, include provisions that could include:

- Specifying which community benefits will be accepted in exchange for increases in height or density including links to affordable rental housing, heritage conservation efforts, etc.
- Whether a value-based formula should be applied to provide clarity of administration
- The timing of section 37 agreements and payments
- How indexing should apply

On November 18, 2014 Liberal MPP Peter Milczyn introduced Bill 39 (*An Act to Amend the City of Toronto Act, 2006, the Planning Act and certain regulations*). Bill 39 received second reading on November 20, 2014 and was subsequently referred to the Standing Committee on General Government. Among other matters, Bill 39 proposes to amend Subsection 37 of the *Planning Act*, by repealing subsection 37(1) and replacing it with the following:

Increased density, etc., provision by-law

- 37 (1) The council of a local municipality may, in a by-law passed under section 34,
 - (a) require the provision of specified facilities, services and matters in exchange for a specified height or density of development, which may be within the ranges set out under clause (b) or outside those ranges as set out under clause (c);
 - (b) set out a list of minimum and maximum standards for development; and
 - (c) set out a range of possible variations from the standards referred to in clause (b) that may be authorized in connection with an agreement under subsection (3).

The proposed amendments to Section 37(1) provide for additional clarity for the administration of bonusing provisions as well as limits to density bonuses in exchange for these provisions. In response to the needs for guidelines and pending changes to section 37(1) of the *Planning Act*, draft guidelines can be prepared by staff for presentation and discussion at a future meeting of General Government Committee.

3.2.2 Alternative Development Standards

Development standards are municipal requirements and performance standards that are applied to the planning, design and construction of new developments as part of the approvals process. These standards are wide ranging and include the supply and design of parking, lot sizes, building

siting, engineering standards, stormwater management requirements, etc. Alternative development standards can be applied to improve site efficiencies by reducing development costs while still ensuring that appropriate standards are in place. Using these measure can help to support the viability of affordable housing projects. Approaches to improve site efficiencies using these measures have been applied within Ajax. Various measures are being examined through the Comprehensive Zoning By-law Review.

3.3 Development Regulations

A range of regulatory and planning policy tools can be made available to support the provision of additional affordable housing. A description of these tools and their applicability is provided below.

3.3.1 Inclusionary Zoning

Part of the provincial Long-Term Affordable Housing Strategy Update includes a provision that would introduce amendments to the *Planning Act* to enable the use of inclusionary zoning by local municipalities. Stated broadly, the provincial intent of enabling legislation would, if passed, give all municipalities the ability to require private developers to include affordable housing units in their development proposals.

The approach in a number of US jurisdictions has been by way of ordinance, including Montgomery County, Maryland where, in exchange for a density bonus of 20%, the ordinance requires all developers proposing more than 50 units in the County to set aside 12.5% to 15% of their units as "moderately priced dwelling units". It has been cited as a successful example of this approach. Staff view this approach as a potentially valuable mechanism to secure additional affordable housing through privately initiated development proposals.

Bill 39 proposes to amend the *Planning Act* to allow municipalities to pass zoning by-laws to require affordable housing in the municipality by mandating that a specified percentage of housing units in new housing developments containing 20 or more housing units must be affordable to low and moderate income households. Section 51 of the *Planning Act* is also proposed to be amended to allow an approval authority to require inclusionary housing as a condition of approval of a plan of subdivision.⁹

Prior to a municipality passing such inclusionary housing by-law, the Bills require the Official Plan of the municipality to contain provisions relating to inclusionary housing requirements. The Bills also allow the Lieutenant Governor to make regulations prescribing matters such as size, location, and design standards required for the affordable units. They indicate that the existence of a by-law does not require the municipality to provide any financial assistance of other incentives to developers.

Bill 39 includes more prescriptive text pertaining to inclusionary housing by-laws, as follows:

Inclusionary Housing By-law

37.1 (1) The council of a local municipality may, in a by-law passed under section 34,(a) require that a specified percentage of all housing units described in subsection (2) be affordable: and

⁹ On July 7, 2014 NDP MPP Cheri DiNovo reintroduced Bill 3 (*An Act to Amend the Planning Act with respect to inclusionary housing*) from a previous session of Parliament, which received First Reading. A number of the provisions of Bill 3 were either duplicated or expanded upon in Bill 39.

(b) specify the percentage.

Application

- (2) Clause (1) (a) applies to housing units in new housing developments,
 - (a) that contain 20 or more housing units; and
 - (b) whose construction requires a site-specific by-law or by-law amendment.

Condition

(3) A by-law shall not contain a requirement described in subsection (1) unless there is an official plan in effect in the local municipality that contains provisions relating to inclusionary housing requirements.

Incentives

(4) The existence of a by-law described in subsection (1) does not require the municipality to provide any financial assistance or other incentives to developers.

Agreements

(5) If a municipality has passed a by-law described in subsection (1), the municipality may require the developer of a new housing development containing housing units to which clause (1) (a) applies to enter into one or more agreements with the municipality dealing with affordable housing requirements in the development.

Agreement re: affordability

(6) Without restricting the generality of subsection (5), an agreement entered into under that subsection may restrict the ownership and occupancy of affordable units to eligible persons.

Registration of agreement

(7) Any agreement entered into under subsection (5) may be registered against the land to which it applies and the municipality is entitled to enforce its provisions against the developer and, subject to the Registry Act and the Land Titles Act, any and all subsequent owners of the land.

Regulations

- (8) The Lieutenant Governor in Council may make regulations dealing with the following matters in connection with affordable housing units that are required by by-laws described in subsection (1):
 - 1. The number of bedrooms in the affordable units.
 - 2. The size of affordable units.
 - 3. The timing of the construction of the affordable units.
 - 4. The location and distribution of the affordable units.
 - 5. The design and construction standards required for the affordable units.
 - 6. The eligibility requirements for ownership and occupancy of affordable units.

- 7. Alternative methods for satisfying inclusionary housing requirements, including but not limited to payment of fees in lieu and the provision of land.
- 8. Such other matters as the Lieutenant Governor in Council considers necessary or advisable in connection with the provision of inclusionary housing.

Staff generally support the above noted changes, with one exception. Section 37.1(2)(b) would require that such construction require a site specific by-law or by-law amendment. However, the Town, has pre-zoned various intensification areas to enable intensification and potential future affordable housing units. These areas include for example portions of the Downtown and the Uptown, which are the Town's primary intensification areas. Within these areas, significant multi-residential development could proceed by way of site plan approval, and would be unnecessarily excluded from the ability to facilitate additional affordable housing through an inclusionary housing by-law. It is therefore staff's recommendation that the requirement that construction require the passage of a site specific by-law be removed.

3.3.2 Development Permit System

The Development Permit System (DPS) has been discussed in the reports to the March 7 and May 2, 2016 meetings of Community Affairs and Planning Committee. The DPS is a tool that streamlines and expedites the planning process by combining zoning, site plan and minor variance processes in the areas in which it is applied. As a streamlined planning process, the DPS can facilitate appropriate development by:

- Providing a "one-stop" planning service by combining zoning, site plan and minor variance processes into one application and approval
- Providing more certainty upfront in the process about the requirements for development
- Establishing faster timelines for decision-making and eliminating potential duplication in approvals.

The DPS can be used to help achieve provincial policy direction to use land more efficiently and to advance affordable housing objectives by promoting a range of housing types and densities, permitting garden suites and secondary units in different housing types and encouraging mixed use development by providing for a wide range of discretionary uses, provided certain criteria are met.

The DPS can help municipalities incorporate flexible, alternative development standards to facilitate higher density, mixed use development that helps to promote affordable housing. For example, a municipal DPS can utilize provisions provided in the *Planning Act* and progressive development standards to require minimum height and density levels, smaller lots and narrower streets. Unique to the DPS, municipalities have added flexibility to facilitate alternative development standards by establishing a specified range of possible variation from identified standards for development. For instance, it can be used to reduce parking space requirements without the need for a minor variance application and promote increased height and densities, and reduced setbacks, to use existing infrastructure more efficiently.¹⁰

3.3.3 Zoning Permissions for Alternative Accommodations

Alternative accommodations refers to secondary units that may be provided on lots developed or planned for detached dwellings. The Durham Housing Plan encourages area municipalities to review and develop enabling policies for secondary and garden suites, in existing and new

¹⁰ Source: Municipality of Municipal Affairs and Housing. Development Permit System: A Handbook for Municipal Implementation. Fall, 2008.

housing developments. The Town of Ajax has taken strides to permit alternative accommodations in neighbourhoods as highlighted below.

a) Accessory Apartments

Section 4.4 of the Town of Ajax Zoning By-law 95-2003 permits one accessory apartment in any single-detached or semi-detached dwelling in a Residential or Mixed Use Zone provided that it has a minimum gross floor area of 25.0 m² and the total gross floor area of the accessory apartment is not more than the ground floor area of the dwelling in which it is located. In accordance with Section 5.10.1, the minimum parking requirement for an Accessory Apartment is one space in addition to the requirements of the dwelling unit. Approximately 600 permits have been issued for accessory (basement) apartments in Ajax since this provision was instated in 2003.

b) Lodging Houses

On December 9, 2013, Council adopted By-law 114-2013 which permits Lodging Houses (defined as a building containing 3-10 lodging units including without limitation, a rooming house and a boarding house, a fraternity house or sorority house). Lodging Houses are permitted in the Rural Area Residential Zones CR (Country Residential) and PC (Permanent Countryside) and in the Urban Area Residential Zones R1-A, R1-B, RI-C, R1-D, R1-E, R1-F, and VC4. The By-law established zone standards (e.g. building heights and setback from property lines) for a lodging house that are the same as zone standards for detached dwellings. It requires 2 parking spaces for the building and the Licensing By-law requires an additional parking space for every 3 lodging units.

c) Garden Suites

Permissions for Garden Suites are being studied through the Town's Comprehensive Zoning Bylaw Review. Garden Suites are freestanding buildings containing one independent housekeeping unit on lots with existing homes. Garden suites are normally provided in rear yards. Due to the size of a number of existing residential properties, the potential exists to allow for a Garden Suite as an additional permitted use, subject to regulations that would control the size, massing and location of these units. These units can be sensitively designed while allowing for alternative, practical and affordable housing opportunities. It is expected that draft zoning regulations will be available for public review and comment in early 2017.

d) Group Homes

On December 11, 2015 staff received correspondence from the Ontario Human Rights Commission (OHRC) providing comments to the Town's Comprehensive Zoning By-law Review. OHRC indicated that under the *Human Rights Code*, municipalities may not discriminate based on age, disability, receipt of public assistance, family or marital status, or any other *Code* ground. It indicates that people identified by Code grounds who are more likely to require affordable housing or certain services are disproportionately affected when land use planning or other municipal processes reduce, prevent, delay, or otherwise limit needed housing and services. OHRC cites legal cases indicating that minimum separation distances and other zoning restrictions for group homes, other forms of affordable housing, and/or certain services, are not appropriate or justifiable. In this regard, OHRC notes that Ajax's zoning bylaw still has a minimum separation distance (MSD) requirement for group homes and that this requirement should be removed. OHRC also notes that other arbitrary exclusions, numerical limits or other limitations to

affordable housing should also be removed. Staff will bring forward the appropriate amendments as part of the Comprehensive Zoning By-law Review.

3.3.4 Ontario Building Code

Ontario Regulation 191/14 came into effect on January 1, 2015. These changes made amendments to the 2012 Ontario Building Code relating to wood frame construction, additional requirements for barrier-free design, and other parts of the Code. The amendments increased the permitted height of certain wood frame buildings from four to six storeys. These changes would reduce construction costs for mid-rise apartment buildings, thereby improving the economic feasibility of this form of development. Ajax Building staff have been trained on these changes to the Building Code in preparation for potential future development proposals.

3.4 Property Tools

For appropriate sites, the Town may choose to acquire or sell properties to enable appropriate development projects, including affordable housing. Although the Town has relatively few surplus properties with the appropriate planning permissions in place for medium or high density residential development, this option remains.

3.5 Potential Communication Topics

The Town can also play a role in providing information to interested homeowners wishing to retrofit their properties or encourage the delivery of affordable housing. An important component can be the sharing and distribution of news and information through social media, brochures or other means regarding:

- Rules governing building retrofits to enable accessory apartments
- Rules and regulations governing the development of Garden Suites (if approved through the Zoning By-law Review)
- Information regarding existing Municipal Programs, including Community Improvement Plans for the Downtown and Pickering Village
- Announcements and information regarding innovative projects being undertaken within Ajax by the development community
- Raising awareness and acceptance of housing for vulnerable people

4. FINANCIAL IMPLICATIONS:

There are no financial implications regarding the approval of the recommendations within this report.

5. COMMUNICATION ISSUES:

On March 30, 2016, the Director of Planning and Development Services received a letter from the Building Industry and Land Development Association (BILD) regarding the 2016 Provincial Long Term Affordable Housing Strategy and Inclusionary Zoning.

BILD is concerned that the implementation of inclusionary zoning without incentives to accompany this initiative will serve to undermine housing affordability for new homebuyers. BILD has stated that (among other matters):

- Inclusionary zoning can cause the average price of new home to increase;
- Inclusionary zoning asks narrow segment of society (homebuyers or renters) to bear the cost of a social subsidy which is inequitable;
- The cost of the subsidy will reduce the economic return on new housing, to the extent that
 it could threaten the feasibility of new housing developments;
- BILD suggests that inclusionary zoning be supported by municipal incentives, and that such incentives be applied through a formula to establish certainty in the process and promote the take-up for affordable housing projects.

BILD described a range of tools that municipalities could apply to create affordable housing, many of which are described in this report. A copy of BILD's letter is provided within Attachment 1.

6. CONCLUSION:

Housing is a basic necessity. As our society encompasses those of all income streams and abilities, we have a joint responsibility to ensure that decent housing is provided that is responsive to this reality. Through its own efforts, the Town has taken a number of incremental steps through various processes to encourage the provision of affordable housing. Continued efforts to further improve a climate of investment is being provided through the Comprehensive Zoning By-law Review, the Development Permit Implementation Study, the administration of Community Improvement Plans and other means.

Staff support the use of inclusionary zoning as another tool to support this goal and have recommended a change to the proposed legislation to ensure that pre-zoned sites are not arbitrarily excluded. Incentive based tools, including the application of section 37 of the *Planning Act* is also supported. Staff recommend that protocol and guidelines be developed once changes to section 37 of the *Planning Act* are in full force and effect.

Gary Muller, MCIP, RPP
Manager of Planning
Paul Allore, MCIP, RPP
Director of Planning and Development Services

Attachment 1: Letter dated March 30, 2016 from BILD



March 30, 2016

Mr. Paul Allore
Director of Planning & Development Services
The Town of Ajax
65 Harwood Ave. South
Ajax, ON
L1S 2H9

Dear Mr. Allore,

RE: 2016 Provincial Long Term Affordable Housing Strategy and Inclusionary Zoning

As you are aware, the Province has announced an update to its Long Term Affordable Housing Strategy. As part of this update, a number of policy and legislative measures were introduced, including an investment of \$178 million over three years to help provide access to affordable and adequate housing in Ontario. The Building Industry and Land Development Association (BILD) applauds the Province for committing this type of investment to affordable housing. BILD strongly supports the need to find appropriate solutions for the delivery of affordable housing in the Greater Toronto Area (GTA) and Simcoe County.

Of particular interest to our membership, was the announcement that the Province will be proposing new legislation for inclusionary zoning. BILD acknowledges that this will enable municipalities to be able to mandate the inclusion of affordable housing units in new developments. While BILD and members are committed to working collaboratively with our municipal partners to support the delivery of affordable housing, as has been demonstrated by our active participation in affordable housing initiatives and discussions in Peel and York Regions, Simcoe County, the City of Mississauga, and the City of Toronto, our concern is that the implementation of inclusionary zoning without the necessary incentives to accompany this initiative will only serve to undermine housing affordability for new homebuyers.

BILD acknowledges that there are challenges in building more affordable housing units and we are committed to being a part of the solution. However, it cannot come at the expense of housing affordability for new homebuyers. Collectively, we need to ensure that we increase the amount of affordable housing without impacting the overall affordability of housing in the GTA and Simcoe. This means avoiding the use of additional taxes and costs to the already burdened new homebuyer.

BILD would like to take this opportunity to highlight some key sentiments with respect to the implementation of inclusionary zoning for your consideration. The following points are also supported by the Ontario Home Builder's Association (our provincial affiliate).

LOGISTICAL CONSIDERATIONS

- Inclusionary zoning can cause the average price of new homes across the market to increase, therefore reducing the overall affordability and supply of new housing.
- Inclusionary zoning asks homebuyers (or renters) to bear the cost of a social subsidy. The policy is inequitable, as a narrow segment of society would bear the cost of a social initiative, which should be spread across all taxpayers. Furthermore, the housing market will be skewed to favour resales that do not carry this extra cost burden.
- The cost of this subsidy will reduce the economic return on new housing to the extent that it would be unlikely to proceed, unless the developer is able to:
 - o Pass the cost along to the buyers of market units within the development which reduces affordability; or
 - o Receive significant compensation from the government in the form of cash grants and/or other concessions such as height or density bonuses.
- Overtime the turnover of inclusionary zoning units may only serve to benefit the owner, not the overall affordable housing supply.
- Inclusionary zoning is a planning tool that has been used in American cities to provide affordable housing units. It has worked in cities where inclusionary zoning policies have been supported by financial and planning incentives, as well as state and federal funding.

CHALLENGES OF INCLUSIONARY ZONING

- **Housing provision** if inclusionary zoning policies are introduced without adequate compensation, they threaten the feasibility of new housing developments. Ultimately, housing shortages will emerge.
- **Housing affordability** when new homebuyers (or renters) have to bear the cost of a subsidy, it has negative repercussions on housing affordability for market units. This is a band-aid solution that essentially represents a hidden tax on new homebuyers.
- **Density** inclusionary zoning policies may have the effect of making large, higher density projects less feasible. In the long-term, this may result in shortages of higher density housing developments.

To avoid the scenarios listed above, we hope that our municipal partners will work with the development industry to implement the following tools to create affordable housing.

TOOLS TO CREATE AFFORDABLE HOUSING

Leveraging Municipal Surplus Land

BILD members have advised that surplus municipal lands that are well-positioned and well-located to suit residential uses should have the cost of affordable housing provision factored into the selling price.

Roadmap to Fast-Tracking Approvals

BILD members have indicated that fast-tracking the planning approval process is one incentive to support the timely delivery of an affordable housing project or unit(s). This incentive could be strengthen by implementing some administrative measures for enhanced certainty. For example:

• A municipality could implement staff training and could also create a shorter roadmap for these approvals.

- Alternatively, the municipality could redeploy its resources. Whereby, affordable housing
 applications could be removed from the regular stream of development applications and
 there could be dedicated staff that works solely on these types of applications.
- BILD also suggests that a municipality clearly identify how much time would be saved through each expedited step in the process.
- Most importantly, in order for a streamlined process to function successfully, there must be
 one department or one body that will oversee the entire streamlining process and ensure
 that all divisions are using their best efforts in fulfilling their duties in the timely delivery of
 affordable housing.

Supportive Planning Policy

A municipality should prioritize and promote planning policies that meet the goals and objectives of affordable housing. As such, BILD suggests:

- The creation of as-of-right zoning permissions for increased height and density that are linked to affordable housing needs.
- Encourage moderate affordable housing intensification, such as townhouse and low-rise apartments, through municipal reviews.
- Allow for relief from cost-intensive urban design guidelines or other non-regulatory guidance documents.

Provide a List of Incentives

Offering an array of incentives will help support the business case for an affordable housing project or unit(s) to our members' financial institutions and partners. BILD supports the following incentives:

- Phasing, deferring or waving development charges
- Phasing, deferring or waiving development application fees
- Waiver on Section 37 for affordable housing units
- Property tax exemptions or property tax offset in the form of a tax increment equivalent grant
- Surplus municipally owned land could be sold for a nominal price
- Municipal funding towards environmental clean-up for redevelopment sites
- Fast-tracked development approval process through a dedicate review stream
- Dedicate funds from the Province's IAH program
- Financial incentives for repair costs and upgrades
- Allocate funding secured through the development charges by-law to affordable housing initiatives
- Reduction in parking requirements
- Parkland dedication exemptions
- Building permit exemptions
- Waving the 1% for public art contribution, where applicable

Create a Formula for Affordable Housing

BILD members have indicated that the most critical component of this exercise is the need for a formula to determine 'when' and 'which' incentives would apply. This formula could identify all the incentives that are available to develop affordable housing projects or units and qualify how these incentives would be applied to a particular project. For example, several incentives could be selected from a list and used, up to a designated percentage of the project's total construction value. Creating a formula would establish certainty in the process and promote the take-up of affordable housing projects.

We call on our municipal partners to show a commitment to making it happen related to all of the supportive tools that are noted above. Creating affordable housing, with the industry as your partner in community building, can take place only with these tools in place.

We would also like to take this opportunity to request that if you are contemplating the possibility of implementing inclusionary zoning policies, you will engage our members throughout the process to ensure that overall housing affordability for Ontario's new neighbours is not undermined. BILD is committed to working collaboratively with our municipal partners and other stakeholders to increase the supply of affordable housing units throughout the GTA. If you have any questions or concerns, please do not hesitate to contact the undersigned.

Sincerely,

Bryan Tuckey

President and CEO

cc: Steve Deveaux, BILD Chair

Bryom I welly.

Paula Tenuta, VP Policy & Government Relations Joe Vaccaro, CEO, Ontario Home Builders Association

BILD Chapter Chairs

TOWN OF AJAX REPORT



REPORT TO: General Government Committee

SUBMITTED BY: Paul Allore

Director of Planning and Development Services

PREPARED BY: Andrew Poray

Sr. Economic Development Officer

SUBJECT: Manufacturer's Limited Liquor Sales Licence – Falcon Brewery

WARD(S): 3

DATE OF MEETING: May 9, 2016

REFERENCE: Economic Development & Tourism Strategy

RECOMMENDATION:

That Council support the issuance of a Manufacturer's Limited Liquor Sales Licence ("By the Glass") for Falcon Brewery Company to be located at 30 Barr Road, Ajax; That staff be authorized to provide written notice in support of Falcon Brewing Company to the Alcohol and Gaming Commission of Ontario (AGCO).

BACKGROUND:

The Alcohol and Gaming Commission of Ontario (AGCO) issues licences to Ontario wineries and breweries allowing for the on-site sale and consumption of their products to promote their products, enhance a tourist experience of their facility and/or to provide public education.

There are about 50 licenced craft brewers in Ontario, including contract brewers who received manufacturing licences from the Alcohol and Gaming Commission of Ontario.

According to the Ontario Craft Brewers association, the craft brewing market has more than doubled since 2002 and continues to be the fastest-growing LCBO beer segment with annual sale increases of 30 to 50 per cent.

Small brewers in Ontario have created thousands of jobs and invested tens of millions of dollars into the economy. There are more than 1,000 direct brewery jobs and more than 4,000 indirect jobs. In 2012, the broader economic impact of small breweries was estimated at more than \$400 million annually.

Falcon Brewery started in 2013, and plans to open its own brewery in Ajax at 30 Barr Road, with an opening targeted for October 2016. This will be the first craft brewery in Ajax. Falcon Brewery products are currently brewed under contract by Wellington Brewery, and are sold in 48 Beer Stores and approximately 60 pubs and bars in Southern Ontario.

The site is located within the Prestige Employment (PE) zone. In this zone, light manufacturing is permitted. In addition, an accessory Retail Sales Outlet is permitted, which allows for the sale of products manufactured, processed or assembled on the premises up to a maximum of 20% of

the gross floor area. With the gross floor area requirement met, there are no zoning concerns with the proposal.

Falcon Brewery is currently in the process of submitting application to the Alcohol and Gaming Commission of Ontario for a Manufacturer's Limited Liquor Sales Licence. When submitting an application to the AGCO for this type of licence, wineries and breweries must submit proof that the municipal council of the community, in which the winery or brewery operates, has passed a resolution supporting the issuance of the licence.

DISCUSSION:

On April 15, 2015, Jim Williamson, owner of Falcon Brewery advised the Town of Ajax that an application would be submitted to the Alcohol and Gaming Commission of Ontario (AGCO) with respect to a Manufacturer's Limited Liquor Sales Licence Application. As part of the AGCO process, a Council resolution is required that supports the Falcon Brewery's application.

Ontario breweries and wineries holding this category of licence are permitted to sell and serve the alcohol they manufacture by the glass. Beer or wine may only be sold between the hours of 11:00 am and 9:00 pm daily. Guests are only permitted to consume alcohol on-site as approved under the liquor licence and a serving cannot exceed 341 ml (12 oz.).

The Manufacturer's Limited Liquor Sales Licence provides the opportunity for consumers to sample a small quantity of products before purchasing for home consumption. This category of license is not intended to permit the brewery to operate as a restaurant.

Durham Region has experienced a growth in craft breweries, and recently Durham College has added courses to facilitate training in brewery business operations. Below is an example of micro/craft breweries operating within Durham Region, each requiring local Council resolution in support of their application to AGCO for a Manufacturer's Limited Liquor Sales Licence:

- 5 Paddles Brewing Co. 1390 Hopkins St., Unit 3, Whitby
- Brock Street Brewing Co. 1501 Hopkins St., Unit 3, Whitby
- Durham Brewing Co. 1885 Clements Rd., Pickering
- Manantler Craft Brewing Co. 182 Wellington St., Bowmanville
- Old Flame Brewing Co. 135 Perry St., Port Perry
- Practically Irish Brewing Inc. 1033 Toy Ave. Unit 8, Pickering
- Underdog's Brewhouse Inc. 1100 Skae Dr., Oshawa
- Windsor Bay Brewing coming soon to Whitby

Three more breweries are proposed in Durham Region, in addition to Falcon Brewery in Ajax, including two in Uxbridge and another in Bowmanville. Many of the Durham craft brewers are involved in tourism events including the Durham Craft Beer event in Oshawa, and the Ajax Rotary Ajax Beer Fest.

FINANCIAL IMPLICATIONS:

There are no financial implications.

COMMUNICATION ISSUES:

There is no requirement for the Town to provide communications on the licence application. However, as part of the review process the AGCO will determine if advertising of this application by the applicant, Falcon Brewery, will be required. This advertising would consist of the business displaying a sign for 30 days viewable to the public advising of the liquor licence application as well as an ad to appear in a local paper.

CONCLUSION:

Ajax has been selected as the location for a new craft brewery, Falcon Brewery. As part of Falcon Brewery's application for licence by the Alcohol and Gaming Commission, Falcon Brewery requires a Council resolution in support of the application.

It is recommend that Council support the issuance of a Manufacturer's Limited Liquor Sales Licence ("By the Glass") for Falcon Brewery Company to be located at 30 Barr Road, Ajax; and authorize staff to provide written notice of support to the Alcohol and Gaming Commission of Ontario (AGCO).

| Andrew Poray – Sr. Economic Development Officer |
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| Paul Allore – Director of Planning & Development Services |

TOWN OF AJAX REPORT



REPORT TO: General Government Committee

SUBMITTED BY: Tracey Vaughan

Director, Recreation & Culture

PREPARED BY: Christian Baudanza-DiTacchio

Acting Facility Manager - Satellite Facilities

Robert Gruber

Manager of Community & Cultural Development

SUBJECT: License Agreement for Ajax Community Theatre

WARD(S): All

DATE OF MEETING: May 9, 2016

REFERENCE:

RECOMMENDATION:

- 1. That the report entitled License Agreement for Ajax Community Theatre, dated May 9, 2016 be received for information; and,
- 2. That the Mayor and Clerk be authorized to enter into a License Agreement with Ajax Community Theatre at the Village Community Centre, located at 22 Sherwood Road West, for a period of 31 months, effective June 1, 2016 and expiring December 31, 2018
- 3. That Staff be delegated the authority to renew the Agreement for an additional four (4) year period, pending an analysis and successful negotiation on terms and conditions at the anniversary date of the Agreement.

BACKGROUND:

Ajax Community Theatre (ACT) is an incorporated not-for-profit community group whose mandate is to provide community theatre in Ajax. The group was formed in 2009 when, after five seasons, StoneCircle Theatre had opted to terminate its License Agreement with the Town. Operated entirely by volunteers, which not only includes the actors and directors for each play, but also set designers and creators, marketing and promotions, ticketing, ushers, lighting and sound technicians, concession sales, etc., ACT provides volunteer opportunities for anyone of any age who wants to be a part of live theatre, whether on stage or behind the scenes. ACT Also provides a mentorship program for those who wish to pursue theatre arts in college or university. Since

their formation in 2009, Council has approved License Agreements with ACT for one (1) year periods providing free facility space at the Village Community Centre (VCC), for the purpose of rehearsal of live theatre.

DISCUSSION:

ACT would like to continue operation under the conditions of their previous License Agreement with the Town where the group receives facility space at the VCC at no cost for rehearsal space and set/prop storage, while paying the full Not-for-Profit/Community Group rate for their permits at the St. Francis Centre for performances. The group would continue to cover all expenses related to marketing & promotions, props, sets, costumes and other production costs, ticketing, and play royalty fees. The free facility space provided to the group at the VCC has allowed ACT to concentrate on building capacity and growing their audience base as well as providing a quality community theatre experience to the residents of Ajax and Durham Region. To continue to assist the organization in building capacity in the cultural sector, staff have developed a new License Agreement for the use of the VCC for rehearsal and storage space, attached as ATT-1.

FINANCIAL IMPLICATIONS:

There will be no revenues earned for the use of the space utilized by ACT at the VCC for the duration of this Agreement.

COMMUNICATION ISSUES:

Town staff and the ACT Board will continue to maintain regular communication respecting the terms of this Agreement.

CONCLUSION:

The importance of community development in the not-for-profit and arts & cultural sectors, as well as the value community partners play in providing cultural opportunities to local residents, is extremely important in the advancement of arts and culture in Ajax. Staff recommend that the Town enter into a License Agreement with Ajax Community Theatre for rehearsal and storage space at the Village Community Centre to continue to build capacity in the arts & cultural sector.

ATTACHMENTS:

ATT-1: Agreement between the Town of Ajax and Ajax Community Theatre.

Christian Baudanza-DiTacchio, Acting Facility Manager – Satellite Facilities

Robert Gruber, Manager of Community & Cultural Development

Tracey Vaughan, Director of Recreation & Culture

ATT-1

LICENSE AGREEMENT

THIS AGREEMENT made this day of .

BETWEEN:

THE CORPORATION OF THE TOWN OF AJAX

(the "Licensor")

-and -

AJAX COMMUNITY THEATRE

(the "Licensee")

WHEREAS:

The Licensor is the owner and operator of the Village Community Centre (the "VCC") located at 22 Sherwood Road West, in Ajax, Ontario and for the purposes of permitting the Licensee to use a part of the VCC for the purposes of rehearsal for live theatre, the Licensor has agreed to grant this License.

IN CONSIDERATION of the premises and other goods and valuable consideration, the parties agree as follows:

- 1. The Licensor grants to the Licensee a non-exclusive License to use part of the VCC as rehearsal space for live theatre and storage for associated supplies (i.e. props, costumes, set pieces, etc).
 - 1.1 Date, time requests and room set-up must be submitted annually to the Recreation & Culture Facility Booking Office by April 15 for approval.
 - 1.2 Storage areas are confined to the following areas:

Main Floor:

- Backstage Area in Hall 1
- Rear Storage Closet

Basement:

- Kitchen
- West Jail Cell
- 2. The License hereby granted shall be for a term (the "Term") of thirty one (31) months. This Agreement, its terms and conditions, shall be reviewed prior to the end of the Term

to determine extension or renewal but nothing herein shall grant to the Licensee a right to extend or renew.

- 3. The Licensee hereby accepts the Licensed Premises in their condition as of the date hereof and shall not call upon the Licensor to do or pay for any work or supply any equipment to make the Licensed Premises more suitable for the proposed use by the Licensee hereunder.
- 4. The Licensee covenants with the Licensor:
 - 4.1 to use the Licensed Premises only for the purposes of rehearsals and set creation and for no other purpose and to carry on such use in a professional manner.
 - 4.2 to maintain the appearance of the Licensed Premises and the equipment thereon in a neat, clean and well-kept manner;
 - to maintain all equipment owned or operated by the Licensee in repair at its own expense, and to repair on written notice from the Licensor;
 - 4.4 to ensure that storage areas are kept neat and tidy and that means of egress are maintained and free of obstructions, following all By-Laws and Fire Codes;
 - 4.5 to ensure that no refuse, litter, garbage or loose or objectionable material accumulates in or about the Licensed Premises;
 - 4.6 not to alter, add to or install equipment in the Licensed Premises including, without limiting the foregoing, any signs without first having the written consent of the Licensor;
 - 4.7 not to assign this Agreement;
 - 4.8 to leave the Licensed Premises in substantially the same condition at the expiry of this Agreement as they were at the commencement of this Agreement; and
 - 4.9 to comply with all federal, provincial and municipal laws, rules, acts, regulations, codes and by-laws and to hold the Licensor harmless from the consequences of its failure to do so

5. The Licensee shall:

5.1 provide and maintain comprehensive general liability insurance in the minimum amount of \$3,000,000.00 with respect to its use of the Licensed Premises during the full term of this Agreement and any extension thereof, naming the Licensor as an additional insured, and will provide a certificate annually evidencing same, prior to execution of this Agreement and as required by the Licensor. Without limiting the generality of the foregoing, such public liability insurance shall contain provisions for cross-liability, severability of interests, and no cancellations or alterations without the consent of the Licensor:

- 5.2 at all times indemnify and save harmless the Licensor from and against any and all claims, demands, losses, costs, charges, expenses, actions and other proceedings made, brought against, suffered by or imposed on the Licensor or its property in respect of any failure by the Licensee to fulfill any of its obligations under this Agreement or for any reason whatsoever or in respect of any loss, damage or injury (including injury resulting in death) to any person or property (including, without restricting the generality of the foregoing, employees, contractors, agents and property of the Licensor) directly or indirectly arising out of, resulting from or sustained by reason of the occupation or *use* of the Licensed Premises, or any operation in connection therewith or any fixtures or chattels thereon. The Licensor shall not be liable, directly or indirectly, for any personal injuries that may be suffered or sustained by any person who may be on the Licensed Premises or for any loss of or damage or injury to property belonging to the Licensee or any other person unless such injury, loss or damage is due to the Licensor's negligence or default or the negligence or default of those for whom the Licensor is in law responsible.
- 6. The Licensee may remove its equipment from the Licensed Premises, provided all damage thereby occasioned shall forthwith be repaired by the Licensee at its own expense.
- 7. The Licensee shall fully indemnify and save harmless the Licensor from and against all construction liens and related costs and other claims in connection with all work performed by or for the Licensee on the Licensed Premises, and shall promptly remove, all registered claims from title.
- 8. This Agreement and the License herein granted may be terminated as follows:
 - 8.1 If the Licensee defaults in performing any of its obligations under this Agreement, the Licensor shall give written notice to the Licensee of such default giving the Licensee five (5) days to remedy such default, failing which the Licensor may terminate the license hereunder and the Licensee shall then forthwith remove its equipment, if any, from the Licensed Premises and shall restore the Licensed Premises to the condition in which they were at the commencement of this Agreement;
 - 8.2 By the Licensor or the Licensee at any time during the Term upon not less than ninety (90) days notice;
 - 8.3 Immediately upon the commencement of any proceedings, voluntary or otherwise, whether in bankruptcy, receivership or winding up to prevent the Licensee from carrying on its business in its normal course or to enforce the rights of the creditors of the Licensee
- 9. This Agreement does not create a fiduciary relationship between the parties hereto. The Licensee agrees that it is not an agent of the Licensor and has no authority to bind the Licensor. Nothing herein shall be construed so as to constitute the parties as partners, joint ventures or agents of the other.
- 10. Any notice required to be given to the Licensor under the terms of this Agreement shall be sufficiently given if delivered to the Licensor, sent by facsimile transmission or mailed

| | by prepaid registered mail addressed to it at 65 Harwood Avenue South, Ajax, Ontario, L1S 2H9. | | |
|---|--|---|--|
| | Any notice required to be given to the Licensee under the terms of this Agreement shall be sufficiently given if delivered to the Licensee, sent by facsimile transmission or mailed by prepaid registered mail addressed to the Licensee c/o, Ontario, or at such other address as the Licensee may in writing designate. In either case, such notice shall be deemed to have been received | | |
| | | ession or in the case of mailing, two (2) business days | |
| 11. | This Agreement shall ensure to the benefit of and be binding upon the parties and their respective successors and permitted assigns. | | |
| IN WITNESS WHEREOF the parties have signed this Agreement as at the date set out above. | | | |
| | | THE CORPORATION OF THE TOWN OF AJAX | |
| | | MAYOR | |
| | | CLERK | |
| | | AJAX COMMUNITY THEATRE | |
| | | PER: | |
| | | NAME: | |
| | | TITLE: | |
| | | PER: | |
| | | NAME: | |
| | | TITLE: | |

TOWN OF AJAX REPORT



REPORT TO: General Government Committee

SUBMITTED BY: Martin de Rond

Director of Legislative and Information Services/Clerk

PREPARED BY: Alexander Harras

Manager of Legislative Services/Deputy Clerk

SUBJECT: Bill 181 Revisions to the *Municipal Elections Act*

WARD(S): N/A

DATE OF MEETING: May 9, 2016

REFERENCE: N/A

RECOMMENDATIONS:

1. That the report entitled "Bill 181 Revisions to the *Municipal Elections Act*" be received for information purposes.

BACKGROUND:

On April 5th, 2016, the Ministry of Municipal Affairs and Housing announced the introduction of Bill 181, the *Municipal Elections Modernization Act*. Bill 181 proposes a number of revisions to the *Municipal Elections Act* designed to enhance the accessibility, accountability, transparency and administration of municipal elections in Ontario. The proposed revisions are the result of consultations between the Province of Ontario and members of the public, municipalities, and election officials. The bill has passed second reading and is currently before the Standing Committee on Finance and Economic Affairs for public hearings from May 5th to 12th. The legislation is anticipated to be in effect for the 2018 municipal elections.

DISCUSSION:

The legislation contains new requirements for candidates and election administrators, as well as several optional policies that municipalities may adopt. This report is limited to highlighting the changes that are most relevant to future candidates and voters, as there are numerous other administrative changes proposed within the legislation that are minor in nature.

Nomination Period & Filing Rules

The nomination period is the duration of time that individuals may register to be candidates for office in an upcoming election. The nomination period is currently from the first business day of the election year (beginning of January) to the second Friday in September of the election year. Bill 181 proposes to shorten this period to May 1st of the election year until the fourth Friday in July of the election year (July 27th, 2018). This will reduce the nomination period from 37 weeks in 2014 to 13 weeks in 2018.

Additionally, the legislation proposes that candidates must be endorsed by twenty-five eligible electors within the municipality when submitting their nomination papers. Individuals endorsing a candidate must complete a declaration indicating their endorsement and their eligibility to vote in the municipality. All endorsements must be submitted to the Clerk with the candidate's nomination forms. If the Clerk does not have twenty-five completed and signed endorsements for a candidate at the end of nomination day (July 27th, 2018), the nomination shall not be certified and the candidate's name shall not be listed on the ballot.

Campaign Contributions and Expenses

The amount that a candidate may spend on parties and expressions of gratitude after voting day will be limited to a portion of their maximum campaign expenses. The determination of the amount will be established by provincial regulation and is not presently available for discussion purposes.

At the conclusion of the financial reporting period, the Clerk will now be required to prepare a report to the compliance audit committee identifying any campaign contributors that appear to have exceeded the contribution limits specified in the Act. The compliance audit committee will be responsible for determining whether to engage in legal proceedings against any contributors found to be in violation of the Act.

Third Party Advertising

Individuals, corporations or trade unions that wish to advertise during a municipal election must formally register as a third party advertiser under the revised Act. Registration begins on May 1st of the election year to coincide with candidate nominations. After May 1st, 2018, third party advertisements will only be permitted from registered third parties. Individuals, corporations and trade unions may register as third party advertisers. Election candidates, federal and provincial political parties and their riding associations, and any federal, provincial, or municipal agency cannot register as a third party advertiser.

All third party advertisements must indicate the name of the organization responsible for the advertisement, their municipality of registration, and their contact information. Broadcasters that disseminate third party advertisements are required to maintain records of all transactions with registered third parties, and these records must be made available to the public upon request. If a candidate's or a third party's advertisement is found to be in violation of the Act, the municipality may require that the advertisement be removed. For election advertisements such as lawn signs, the authority to remove illegal election signage has typically been specified in municipal sign by-

laws. The Act will now clearly state that municipalities have the authority to require removal of election signage and other advertisements that violate municipal by-laws or provincial legislation.

Registered third parties may receive contributions and incur expenses during the campaign period, similar to candidates. Contributors may give a maximum of \$750 to a registered third party, and a combined maximum of \$5,000 to all registered third parties in an election. Third parties are subject to the same financial reporting requirements as candidates at the end of the election, and similarly must submit any surplus at the conclusion of the campaign period to the municipal Clerk. Expense limits for registered third parties are to be calculated according to the number of eligible electors for the given race and will be specified by way of provincial regulation.

Financial Reporting - Late Filing Fee

For the regular campaign period ending on December 31st, 2018, candidates and third party advertisers are required to submit their financial statements by the last Friday of March following the election year (March 29th, 2019). Under the proposed amendments, candidates and registered third party advertisers may submit their financial statements up to thirty days after the filing deadline (April 30th, 2019) if they include a \$500 late filing fee with their submission to the Clerk. Additionally, the Act will now permit candidates and third party advertisers to submit corrections to their financial statements prior to the filing deadline.

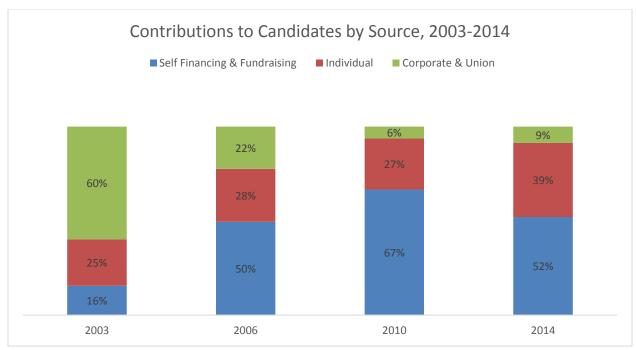
If no financial statement is submitted by the conclusion of the late filing period, the candidate or registered third party advertiser will be prohibited from registering in the next municipal election. An office of municipal council shall be declared vacant if a successful candidate fails to file their financial statement before the expiry of the late filing period, consistent with existing provisions in the Act.

Optional: Prohibition on Corporate and Trade Union Donations

Under the revised Act, municipalities may choose to prohibit contributions to candidates from corporations and trade unions. This authority currently exists for the City of Toronto and is proposed to be expanded to all municipalities in Ontario. A copy of the City of Toronto's by-law is included with this report for reference (See ATT-1). Council must adopt a by-law prior to the beginning of the nomination period (May 1st, 2018) for the prohibition to be in effect for the 2018 elections.

If the municipality passes a by-law prohibiting corporations and trade unions from contributing to campaigns, corporations and trade unions are also automatically prohibited from registering as third party advertisers. In such a case, the only eligible third party advertisers would be individual residents of Ontario.

There has been a significant decline in contributions from corporations and trade unions to candidates for Ajax council over the last several elections. The chart below illustrates contributions to candidates by source for the last four elections:



*2008 by-election omitted.

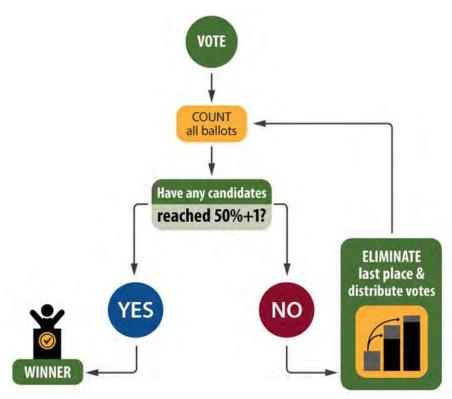
Based on the chart above, a ban on corporate and trade union donations would not have a significant effect on candidate funding, as candidates have increasingly relied on self-financing and individual contributions. However, the legislation currently does not prevent a corporation's principle operators from making one donation as a corporation as well as further donations as individuals. The cumulative influence of donations from corporations, trade unions and their principle operators is therefore likely greater than the chart above would suggest. A ban would affirm Council's commitment to putting community interests first and prevent any future increase in corporate and trade union donations, but would not prevent representatives of corporations or trade unions from making individual donations to candidates.

If the municipality adopts a ban, this policy decision will be considered in a future evaluation of the Town's contribution rebate program for 2018. A review of the program was last conducted in October of 2012 and a new by-law was adopted that established a requirement to re-evaluate the program prior to the 2018 elections.¹ This evaluation is currently under way and will be presented to Council for consideration later in 2016.

Optional: Ranked Balloting

Bill 181 will permit municipalities to voluntarily adopt ranked balloting, allowing voters to rank candidates for office in their order of preference. The votes would be tallied by instant run-off: if no candidate has more than 50% of the votes after the first count, the candidate with the least first place votes is eliminated and their ballots are distributed to the remaining candidates according to the second place preferences listed on those ballots. Eliminations continue until one candidate achieves more than 50% of the vote and is deemed to have won. A visual illustration has been supplied by the Ministry of Municipal Affairs and Housing to describe the process:

¹ General Government Committee Report, "Election Rebate Program", October 4, 2012



Specific rules regarding procedures, vote counting methodology, public consultation and other matters will be provided by provincial regulation and is not available for discussion at this time.

As this is a new method of voting for Ontario municipalities, it is recommended that staff examine the experience of other municipalities that choose to implement ranked balloting in 2018 in order to understand its implications before making any recommendations about its use in Ajax.

Optional: Recount Policy

Municipalities will be permitted to establish a policy defining the circumstances in which an automatic recount must be held for any race for office or question on the ballot. Council must adopt a by-law to approve the policy prior to the beginning of the nomination period (May 1st, 2018) in order for the policy to be in effect for the 2018 election.

Other means of requesting a recount are not limited if the municipality adopts a policy (e.g. by Council resolution or court application). However, the presence of a clear policy may affect the success of any court application for a recount, and would be of benefit to candidates to know when a recount will occur before any votes are tallied.

Administrative Changes

There are a number of other administrative and minor changes within the proposed legislation, some of which include:

Accessibility: Municipalities must prepare an accessibility plan in advance of the election.
 The Town of Ajax already engages in this practice.

- Advanced and Special Polls: Scheduling of advance voting and special polls no longer requires Council approval by by-law, and is now at the discretion of the Clerk.
- Deadlines: Various deadlines have been revised. Of note, alternative voting methods must be approved by December 31st of the year prior to the election (previously June 1st of the election year), and questions or by-laws on the ballot must be approved by March 1st of the election year (previously April 30th).
- Fundraising events: donations at fundraising events under \$25 do not need to be reported as contributions (previously \$10).

FINANCIAL IMPLICATIONS:

Implementation of the optional policies described above may have financial implications for the cost of administering the 2018 elections. The financial impacts resulting from these decisions will be evaluated in any subsequent report.

COMMUNICATION ISSUES:

Should Council choose to adopt some of the optional policies in Bill 181 (e.g. a ban on corporate and trade union donations or ranked balloting), it will be necessary to engage in public education and communication regarding these changes. Other changes related to election administration will be conveyed to candidates and voters through election communication materials as required.

CONCLUSION:

The proposed revisions to the *Municipal Elections Act* are designed to increase accountability and transparency in municipal elections and allow municipalities to adopt new and innovative election policies that meet the needs of their electors. While many of the proposed changes are administrative in nature, there are several opportunities for Council to make policy decisions regarding how elections are conducted in Ajax. If Council is interested in pursuing these options, staff will conduct the necessary research and prepare the requisite authorizing by-law(s) when the legislation is in force.

ATTACHMENTS:

ATT-1: City of Toronto By-law No. 1177-2009

Alexander Harras – Manager of Legislative Services/Deputy Clerk

Martin de Rond – Director of Legislative and Information Services/Clerk

ATTACHMENT 1

Authority: Executive Committee Item 37.2, adopted as amended,

by City of Toronto Council on December 2, 2009

Enacted by Council: December 2, 2009

CITY OF TORONTO

BY-LAW No. 1177-2009

To prohibit all corporate and trade union contributions to candidates seeking office to Toronto City Council in any regular election or by-election.

WHEREAS subsection 70.1(1) of the *Municipal Elections Act*, 1996, as amended (the "Act"), provides that Toronto City Council may, by by-law, prohibit a corporation that carries on business in Ontario or a trade union that holds bargaining rights for employees in Ontario from making a contribution to or for any candidate for an office on Toronto City Council;

The Council of the City of Toronto HEREBY ENACTS as follows:

- 1. A corporation that carries on business in Ontario is prohibited from making a contribution to or for any candidate in any regular election or by-election for an office on Toronto City Council.
- 2. A trade union that holds bargaining rights for employees in Ontario is prohibited from making a contribution to or for any candidate in any regular election or by-election for an office on Toronto City Council.
- **3.** A person who contravenes this by-law is guilty of an offence.
- 4. A corporation or trade union that is convicted of an offence under this by-law is liable to a fine of not more than \$50,000.00.
- **5.** For greater certainty, this by-law applies to all elections and by-elections for an office on the council of the City of Toronto.

ENACTED AND PASSED this 2nd day of December, A.D. 2009.

SANDRA BUSSIN, Speaker ULLI S. WATKISS City Clerk

(Corporate Seal)

TOWN OF AJAX REPORT



REPORT TO: General Government Committee

SUBMITTED BY: Paul Allore, M.C.I.P., R.P.P.

Director of Planning & Development Services

PREPARED BY: Barbara Hodgins, M.C.I.P., R.P.P.

Senior Policy Planner

SUBJECT: Duffin Creek Water Pollution Control Plant Outfall EA-Status

Update

WARD(S): All

DATE OF MEETING: May 9, 2016

REFERENCE: Report to General Government Committee-June 25, 2015

Community Action Plan - Environmental Leadership

RECOMMENDATIONS:

1. That the report titled "Duffin Creek Water Pollution Control Plant Outfall EA-Status Update", dated May 9, 2016, be endorsed:

- 2. That the Minister of the Environment and Climate Change be commended for issuing an Order on April 4, 2016 requiring Durham Region and York Region to prepare a "Phosphorus Reduction Action Plan" (PRAP) study for the Duffin Creek Water Pollution Control Plant over the next 9 months, to determine how phosphorus concentrations and loads in effluent can be reduced to the lowest achievable level, in particular, the soluble reactive phosphorus that fuels excessive *Cladophora* algal growth, prior to discharge from the Plant's outfall;
- 3. That the Ministry be requested to permit the Town to participate in the preparation of the Terms of Reference for the PRAP study and in the PRAP study process:
- 4. That the Ministry also be requested to extend the comment period for the PRAP study, from 45 days to at least 90 days, to allow for review and the preparation and submission of written comments to the Minister and the Regions, and to require the Regions to advise the Town of Ajax and all other Part II Order Requesters in writing when and where the study will be posted for review and comment; and,
- 5. That this staff report be sent to the Minister of the Environment and Climate Change Glen Murray, Paul Nieweglowski (Assistant Deputy Minister, Operations Division, MOECC), Kathleen Hedley (Director, Environmental Approvals Branch, MOECC), MP Mark Holland, MP Jennifer O'Connell, MPP Joe Dickson, MPP Tracey MacCharles, Durham Region, York Region, the City of Pickering, the Town of Whitby, Pickering Ajax Citizens Together to Protect Our Water (PACT POW) and

the other Part II Order Requesters, the International Joint Commission, the Great Lakes Executive Committee, Ontario's Environment Commissioner, Lake Ontario Waterkeeper, Sierra Club, Ecojustice, Environmental Defence, Council of Canadians, Ajax Environmental Advisory Committee, Durham Region Environmental Advisory Committee, Alliance for the Great Lakes, Great Lakes and St. Lawrence Cities Initiative, Toronto and Region Conservation Authority, Central Lake Ontario Conservation Authority, Conservation Ontario, the Great Lakes Guardians Council and other interested parties.

BACKGROUND:

This report has been prepared to:

- 1) Advise Committee of the Order issued on April 4, 2016 by the Minister of the Environment and Climate Change requiring the Regions of Durham and York to undertake further work in the form of a Phosphorus Reduction Action Plan (PRAP) study; and,
- 2) Provide an update on the findings of Dr. Martin T. Auer and his Michigan Technological University team and their computer modeling, based on extensive field work, showing how to effectively reduce soluble reactive phosphorus concentrations and loadings in Duffin Creek Water Pollution Control Plant effluent with advanced tertiary treatment technology (ballasted flocculation) to remediate nearshore conditions at Ajax.

Minister's Recent Order

On April 4, 2016, the Minister of the Environment and Climate Change issued the attached Order to Durham Region and York Region. The intent of the Minister's Order is to obtain further information from the Regions regarding potential optimization of the Duffin Creek Water Pollution Control Plant (WPCP) operations using conventional treatment as well as advanced treatment technology, and obtain comments on the PRAP study for consideration prior to the Minister making a decision on Part II Order Requests regarding the Duffin Creek WPCP Outfall Class Environmental Assessment.

Phosphorus Reduction Action Plan Study (PRAP)

The PRAP study is to determine how phosphorus concentrations and loads in the WPCP effluent can be reduced to the lowest achievable level prior to entering the outfall for both current and future operating conditions. The Order requires the following matters be addressed in the study:

- a. The past five years of phosphorus concentration and loading data;
- b. A desktop study of optimization of WPCP operations to reduce phosphorus in treated WPCP effluent:
- c. A study of new methods that could be employed to reduce phosphorus in the treated WPCP effluent;
- d. Based on a to c above, consideration of options to reduce Total Phosphorus (TP) in the treated WPCP effluent, including an indication of how phosphorus and loadings would be impacted by each option;

- e. Determine an option that will result in the lowest achievable level of TP in treated WPCP effluent, including assessing the operating implications and WPCP modifications and costs required to achieve such reductions:
- f. A strategy to reduce the amount of soluble reactive phosphorus (SRP) in treated WPCP effluent in the short, medium and long term, including methods for identifying current SRP levels, a method for determining how to quantify SRP reductions, and a description of methods to be used to measure SRP reductions;
- g. Identify the seasonal window of nuisance *Cladophora* algal growth and how TP in treated WPCP effluent may be further reduced during this time; and,
- h. Determine the feasibility of achieving a permanent (or ongoing) annual average concentration of 0.35 milligrams per litre of TP in treated WPCP effluent, as well as a TP load of 190 kilograms per day based on an annual average.

The Regions must meet with the Ministry twice, once during and on completion of the PRAP, and may apply for an extension from the Ministry if more time is needed to complete it.

The PRAP study is to be completed within nine months and submitted to the Director. It is also to be publicly posted on the Outfall EA website¹. Within 45 days, comments regarding the PRAP study shall be submitted to the Director of the Environmental Approvals Branch².

DISCUSSION:

Staff are pleased that the Minister's Order recognizes the concerns from the Town, citizens and groups about the degraded Lake Ontario waterfront at Ajax, due to excessive *Cladophora* algal growth, and the potential for existing conditions to worsen unless phosphorus released in Duffin Creek WPCP treated effluent through the outfall is significantly reduced.

Communications with the Ministry

On February 19, 2016, Dr. Auer presented his research findings to the Ministry's new Assistant Deputy Minister (ADM) and the Director of the Environmental Approvals Branch. Also, Jennifer Danahy of Gowling WLG reviewed the actions available to the Ministry in the short-term, under existing legislation, to resolve the Town's worsening algae crisis.

At the meeting, the ADM indicated he was considering what actions should be taken to find a solution agreeable to the Town and the Regions and, when asked, staff explained that the Regions had, up to that point, been unwilling to shape a mutually agreeable solution with the Town.

Staff outlined to Ministry staff the likely impacts if the Minister were to reject the Town's Part II Order Request and approve the Outfall EA as is:

• Elimination of conditions applied to the Duffin Creek WPCP by Minister Broten in 2007 that limit the volume of effluent released from the outfall to 520 million litres per day (MLD), in

¹ The Outfall EA Webpage can be found on the Durham Region website: http://www.durham.ca/works.asp?nr=/departments/works/duffincreek/duffinWPCPmain.htm

² Comments on the PRAP are to be submitted to the Director of the Ministry's Environmental Approvals Branch: kathleen.hedley@ontario.ca

response to the Town's 2006 Part II Order Request pertaining to the Stage 3 WPCP Expansion Class EA and the potential adverse impacts on water quality (and odour) at then proposed effluent volumes:

- Increased effluent volume through the outfall would be allowed to match the WPCP's 630 MLD capacity (due to completion of the Stage 3 WPCP expansion); and,
- Increased Total Phosphorus load from 131 kg/day to 311 kg/day under the Ministry's current Duffin Creek WPCP Environmental Compliance Approval (ECA).

Staff advised the ADM that: the Ajax community, through an Environics poll conducted in the Fall of 2014 identified that resolving the Town's algae problem is Council's highest environmental priority; significant resources have been spent to identify the cause of the problem and proven phosphorus-removal treatment technology that can virtually eliminate the WPCP's discharge of BAP through the Michigan Technological University (MTU) research; and the Town is prepared to take other actions to protect its waterfront if necessary.

The ADM confirmed he understood the Town's position, was new in the job and seeking a "winwin" decision, and would discuss the matter with York Region and get back to Town staff. Subsequently, staff secured a follow-up teleconference with the ADM in mid-April that was superseded upon receipt of the Minister's Order on April 4, 2016.

Staff reviewed the Minister's Order, consulted with Gowlings and obtained from Dr. Auer and his MTU team a critical technical review of PRAP Study Condition A.2.h, which requires the study to make "a determination of the feasibility of achieving a permanent (or ongoing) annual average concentration of 0.35 mg/L of Total Phosphorus in WPCP effluent, as well as a Total Phosphorus load of 190 kg/day based on an annual average".

On April 6, 2016, the Town's Director of Planning and Development Services conversed with the ADM, and exchanged emails on April 6th and 9th, to try to clarify the intent of the Order. Town staff noted that, overall, the objective of the PRAP (to examine how to achieve the lowest achievable level of phosphorus concentrations and loads in the effluent entering the outfall for both current and future operation conditions) is encouraging, as it recognizes the Town's algae problem and efforts to find an effective solution through amendment to the WPCP's ECA rather than the expense and delay associated with the Regions conducting an Individual Environmental Assessment process.

Staff also identified Minister's Condition A.2.h as being inconsistent with the objective of the PRAP to determine the feasibility of achieving a 0.35 mg/L annual average TP concentration. Recent Duffin Creek WPCP annual performance reports indicate the WPCP has regularly achieved TP levels roughly equivalent to 0.35 mg/L using conventional treatment.

Further, the ADM was advised that, based on the detailed scientific analyses by Dr. Auer and the MTU team over the past three years, there will be no improvement to the *Cladophora* problem along Ajax's waterfront while the required annual average TP concentration remains at 0.35 mg/L - other than preventing the current maximum permitted TP load limit of 311 kg/day in the approved WPCP ECA from being reached.

On April 20, 2016, staff sent an email to the ADM ensuring his awareness of the Town's perspective on the Minister's TP limits – that as the WPCP has regularly achieved effluent TP concentration levels roughly equivalent to the proposed 0.35 mg/L limit, the Minister's TP

loading limit of 190 kg/d is considered to be a short-term goal that, applied in concert with the 0.35 mg/L TP concentration limit, will help to prevent a TP loading increase to the present 311 kg/day limit.

Improvement in environmental conditions along the Ajax nearshore will only occur if a new ECA condition, requiring the lowest achievable level of bioavailable phosphorus (BAP) as an operating limit, is imposed on the WPCP. Recent research undertaken in the USA and Canada has revealed that the amount of BAP in WPCP effluent should not exceed 6 µg/L (0.006 mg/L), (for example, 0.084 mg/L with a bioavailability factor of 7%), as this concentration of BAP will not contribute to stimulation of excessive algal growth and can be achieved by advanced tertiary treatment technologies, such as ballasted flocculation.

Not only is the 6 μ g/L BAP concentration limit achievable using ballasted flocculation, it is also consistent with the level of phosphorus removal being required by the Ministry for York Region (the same proponent) at the Water Reclamation Plant considered under the Upper York Sewage Solutions Individual Environmental Assessment (UYSS IEA).

For the UYSS IEA, the Ministry has proposed a TP objective of 0.04 mg/L and a TP limit of 0.06 mg/L, to be imposed in the Water Reclamation Plant's ECA if the undertaking is approved. This corresponds to a BAP objective of 3 μ g/L and a BAP limit of 4 μ g/L if achieved using ballasted flocculation (f_{bio} = 7%) and 31 – 46 μ g/L of BAP using conventional technology (f_{bio} = 77%). In December 2015, York Region agreed to these phosphorus removal limits.

The ADM was advised, therefore, that the Town is looking forward to the Minister imposing a BAP limit of 6 μ g/L in the ECA for the Duffin Creek WPCP upon completion of the PRAP study, to implement Conditions A.2 (e) and A.2 (f) of the Minister's Order. With this BAP limit, Lake Ontario's nearshore will appropriately receive the same level of protection being afforded to Lake Simcoe.

The ADM was requested to provide the Town with the opportunity to participate in the PRAP study and, should Durham Region be receptive to this request, the Ministry's assistance would be appreciated in establishing Terms of Reference to facilitate productive dialogue. Staff noted that an effective partnership will rely on recognition, in the Terms of Reference, that the PRAP study will identify not only methods of achieving the 0.35 mg/L TP limit but also, as the Minister's Order requires, the "lowest achievable level" of phosphorus in effluent (6 µg/L BAP).

TP Concentrations and Loading Limits

The following list outlines the TP concentrations and loading limits pertaining to Duffin Creek WPCP effluent to date:

- The ECA currently sets an annual average TP concentration limit of 0.8 milligrams per litre and a maximum limit on TP Loading of 311 kilograms per day;
- The 2012 Canada-U.S. Great Lakes Water Quality Agreement set a TP concentration limit of 0.5 mg/L for Lake Ontario;
- Recent annual performance reports indicate the WPCP is achieving an annual average TP concentration 0.39 mg/L and is discharging a TP loading of 133 kg/d;
- For the PRAP study, the Ministry identified 0.35 mg/L and 190 kg/d as possible permanent (or ongoing) limits.

From MTU's research, however, TP concentration needs to be reduced to 0.006 milligrams per litre (6 μ g/L) to remediate the Ajax nearshore – similar to the standard required by the Ministry in York Region's Water Reclamation Plant to protect Lake Simcoe.

Great Lakes Water Quality Policy and Regulatory Overview

To understand the need for effective regulatory phosphorus controls on the Duffin Creek WPCP, it is important to put the matter into the context of the current Canada-U.S. Great Lakes Water Quality Agreement. In 2012, the Agreement's principles and approaches were updated, launching a federally-led process to be characterized by:

- Adaptive Management: systematic assessment of the effectiveness of present policies and actions and making adjustments to achieve desired Objectives as Lake Ecosystems become better understood (through scientific studies); and,
- Science-Based Management: making and implementing management decisions, policies and programs for Lake Ontario based on best available science, research and knowledge.

A binational group of Lake managers, agency officials, scientists and engineers, called the Lake Ontario Nutrient Targets Task Team (LONTTT) was formed to address the Agreement's requirements to curb nuisance algal growth. LONTTT will be recommending a phosphorus Substance Objective and establishing target phosphorus loads.

Dr. Auer and the MTU team were invited by LONTTT to present the state-of-the-art suite of linked models (pollutant transport, phosphorus dynamics and *Cladophora* growth) that they have been developing for Lake Ontario, with funding support from the Town, at a planning workshop in January 2016. Since then, Dr. Auer has been contributing to LONTTTs effort. He expects to remain engaged in developing and establishing updated policies, a Substance Objective and target loads applicable to phosphorus in Lake Ontario nearshore waters, and related management actions.

Science and Engineering Overview

The Importance of Bioavailable Phosphorus (BAP)

Pursuant to previous Great Lakes Water Quality Agreements, management of eutrophication³ continues to presently focus on Total Phosphorus (TP), encompassing all forms of phosphorus, whether or not they are readily available (bioavailable) to fuel algal growth.

This approach has been ineffective in relation to *Cladophora* because not <u>all</u> forms of TP are bioavailable (BAP) and readily accessible by algae to support plant growth. For this reason, discharges from tributaries (rivers and creeks) dominated by phosphorus forms low in BAP play a lesser role in stimulating *Cladophora* growth than do effluents from wastewater treatment plants rich in the Soluble Reactive Phosphorus (SRP) form, which is 100% bioavailable.

The 2012 Agreement requires that the bioavailability of various forms of phosphorus be taken into account when establishing Substance Objectives and loading targets for phosphorus. Thus, reducing controllable sources of BAP-rich discharge in Lake Ontario is fundamental to phosphorus management to reduce excessive algal growth, because there is no environmental

³ Eutrophication means lake water over-enriched with nutrients, such as phosphorus, where the water is often murky and has dense plant (algae) growth that decomposes and can deprive fish of oxygen.

benefit to removing phosphorus that is not bioavailable. Therefore, phosphorus management for Lake Ontario is focusing first on SRP, which is 100% bioavailable.

Phosphorus and Cladophora in the Ajax Nearshore

A peer-reviewed paper, authored by Anika Kuczynski of MTU and published recently in the *Canadian Journal of Fisheries and Aquatic Sciences*, describes the resurgence of *Cladophora* in Lake Ontario. The paper re-emphasizes the importance of, and need for, reducing phosphorus inputs to reduce and eliminate environmental impacts through improved management decisions.

There continues to be a high volumes of *Cladophora* growth in the Ajax nearshore. *Cladophora* beds attached to solid lake bottom extend offshore to 20 metres water depth, approximately 2 kilometres offshore. When nearly saturated with phosphorus in the water, this algae grows rapidly and produces multiple "crops" of biomass throughout the swimming season. Once water temperatures exceed the optimum for *Cladophora* growth, algae plants weaken and detach from the lake bottom due to wind-driven currents and turbulence.

Churned up, decomposing algae moves through the nearshore, accumulating on the shore and in the water near beaches. This renders the water unusable for swimming and wading, and the waterfront unattractive as a result of strong odours rising from mounds of rotting algae.

In 2015, dense accumulations of decaying *Cladophora* algae in nearshore water and on the shore again fouled the Town's "jewel" of a waterfront, discouraging its use and enjoyment by residents and tourists from June through September (Figure 1).



Figure 1 – Decomposing algae (Cladophora) on Rotary Park Beach, Ajax in 2015

From three years of intensive study, MTU has determined the following:

The conventionally treated effluent released from the Duffin Creek WPCP outfall
contributes 98% of the BAP directly into the Ajax nearshore during the Cladophora
growing season; and,

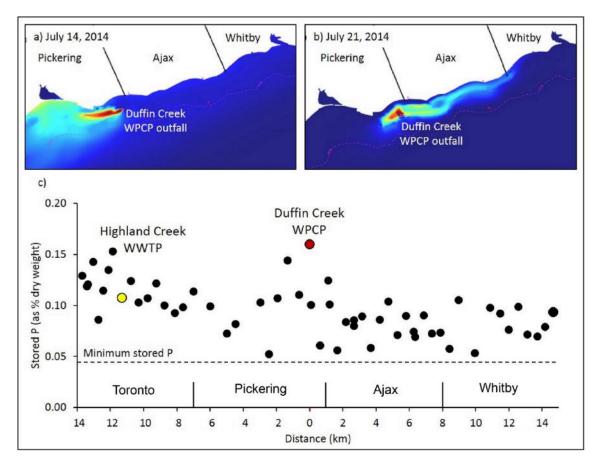
 The remaining 2% of the BAP input originates from tributaries: Duffins Creek, Carruthers Creek and the Rouge River.

Other potential sources of phosphorus further afield, such as more distant WPCPs and offshore waters, have also been studied by Dr. Auer's group, who noted that the magnitude of a source's discharge does not conclusively mean it is the cause of accelerated algal growth. However, at sites such as the Ajax nearshore that have adequate sunlight penetration to the lake bottom and suitable temperatures, *Cladophora* growth is directly driven by the levels of phosphorus taken up (eaten) by *Cladophora* algae plants from the water and stored in the plants' tissues (referred to as Stored P).

In Figures 2a and b, geographically-intensive field measurements, combined with mathematical modeling, defined the area where Duffin Creek WPCP effluent mixes with lake water. Figure 2c displays the measured Stored P content in *Cladophora* plants across the waterfront. The locations of peak Stored P measurements in the mixing zone around the WPCP outfall were compared with measurements taken elsewhere across the Ajax waterfront.

Taking this approach, MTU has produced scientific evidence showing that the WPCP effluent stimulates excessive *Cladophora* growth in the Ajax nearshore, in contrast with the position taken in the Outfall EA.

Figure 2 – Relative Positions of (a) and (b) Duffin Creek WPCP Discharge and (c) *Cladophora* Stored Phosphorus Content across the Ajax Nearshore



Recently, Dr. Auer and his colleagues published a peer-reviewed paper documenting the decade-long success of the Metropolitan Syracuse NY WPCP (Metro) in achieving exceptional BAP reduction in its effluent⁴. In MTU's pollutant transport model for the Duffin Creek WPCP, these findings were considered to evaluate the effectiveness of BAP-removal technology used at Metro, alone and combined with use of a new 3-km outfall, to try to find a solution eliminating the impact of the phosphorus in effluent from the Duffin Creek WPCP on algal growth at Ajax.

Phosphorus and Cladophora in 21st Century Lake Ontario

In the 1970s, Lake Ontario was eutrophic⁵, with SRP concentrations grossly in excess of the 1-2 μgP/L (micrograms phosphorus per litre) level required to manage the *Cladophora* problem (Figure 3).

In Lake Ontario, phosphorus was present at such high levels that *Cladophora* grew abundantly at all locations having a solid lake bottom and light penetration sufficient to support plant growth. Under such circumstances, *Cladophora* growth was described as Whole Lake-Forced.

During the 1970s and 1980s, phosphorus control efforts reduced SRP levels below 5 µgP/L.

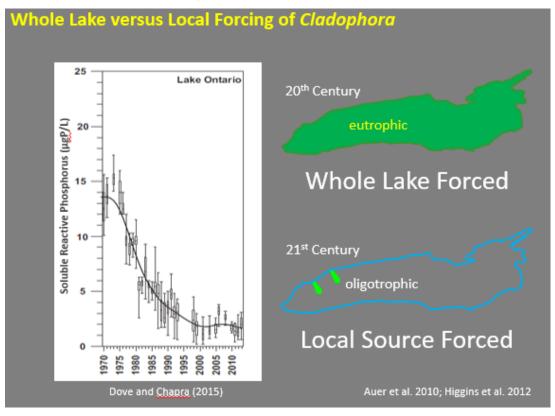


Figure 3 – Transition from Whole Lake to Local Source Forcing of *Cladophora* Growth in Lake Ontario⁶

⁴ The peer-reviewed papers recently published by Dr. Auer and the MTU team in international scientific journals can be viewed on the Town's Outfall EA webpage: http://www.ajax.ca/en/doingbusinessinajax/duffincreekwpcp.asp

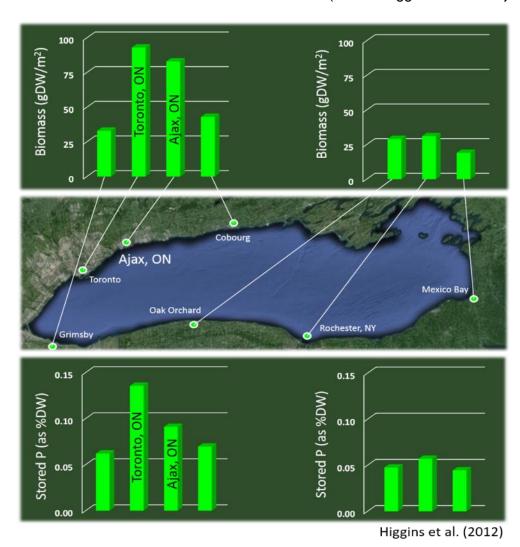
⁵ Eutrophic means lake water over-enriched with nutrients such as phosphorus and nitrogen, where the water is often murky and has dense plant (algae) growth that decomposes and can deprive animals and fish of oxygen.

⁶ Dove, Alice, et al. Long-term trends of nutrients and trophic response variables for the Great Lakes. Limnology and Oceanography, Vol. 60, Issue 2, p. 696-712 (2015).

Since 2000, Lake Ontario's SRP concentrations have fallen below 2 μ gP/L, with offshore waters now considered to be oligotrophic⁷. Today, *Cladophora* is present over much of the Lake Ontario nearshore. However, excessive algal growth is only found at locations where local sources are releasing phosphorus, especially where WPCPs discharge effluent. This circumstance is called Local Source-Forced (Figure 3).

In 2012, Fisheries & Oceans Canada, Ministry of the Environment and Climate Change and U.S. scientists published a study of Lake Ontario regarding the transition from whole lake forced to local source forced conditions⁸. The study concluded that effective *Cladophora* management requires managing local sources of phosphorus.

Figure 4 – Cladophora Biomass and Stored Phosphorus Content at Selected Sites in the Lake Ontario Nearshore (data of Higgins et al. 2012)



Oligotrophic means lake water with low nutrient levels, low algal production, and consequently, often very clear water of high quality for drinking.

⁸ Higgins S.N., et al. *Urban influences on Cladophora blooms in Lake Ontario*. Journal of Great Lakes Research 2012; 38, Supplement 4;116-23.

Figure 4 illustrates the following 2012 study findings:

- Highest levels of Cladophora biomass and concentrations of phosphorus (sufficient to drive excessive growth) were found in the Greater Toronto Area where several WPCPs are releasing effluent, including Toronto's Humber Bay WPCP, Ashbridges Bay WPCP and Highland Creek WPCP as well as the Duffin Creek WPCP; and,
- Low levels of *Cladophora* biomass and Stored P concentrations (nearing P-starvation) were measured in nearshore waters with little urbanization and relatively minor impacts from WPCP effluent, for example, Mexico Bay, New York.

MTU's findings at Ajax (Figure 2) are consistent with the results of the 2012 lakewide study.

The Challenge of Phosphorus Management in the Nearshore

Presently, Lake Ontario is managed according to Lake Ecosystem and Substance Objectives developed for and applicable to offshore (open lake) waters, permitting WPCP discharge to the nearshore and effluent plume movement through shallow (nearshore) water and into open lake water for dilution where existing Substance Objectives are eventually met.

Consequently, WPCP effluent (over-enriched with BAP) released into nearshore waters pass through *Cladophora* habitat at concentrations in excess - at times far in excess - of the levels required to fuel excessive *Cladophora* growth.

The predominant east-west Lake currents carry BAP-rich Duffin Creek WPCP effluent back and forth across the Ajax nearshore (Figure 5) that fertilize beds of *Cladophora* on the lake bottom.

Eventually, pollutants move beyond the nearshore into open lake waters. The Duffin Creek WPCP is operated year-round, thus its discharged effluent plume is constantly present and impacting water quality in the Ajax-Pickering nearshore.

Therefore, the challenge of phosphorus management in Ajax's nearshore is to prevent the phosphorus-carrying plume from interacting with *Cladophora* habitat.

Figure 5 shows where the effluent plume, released from the existing outfall-diffuser 1 km from shore, moved across *Cladophora* habitat along the *entire* Ajax waterfront and into Whitby during a 7-day monitoring period in 2014. At that time, the modeling indicated the plume travelled over the submerged water intake pipe for the Ajax Water Supply Plant (owned and operated by Durham Region) – the source of drinking water for both Ajax and Pickering.

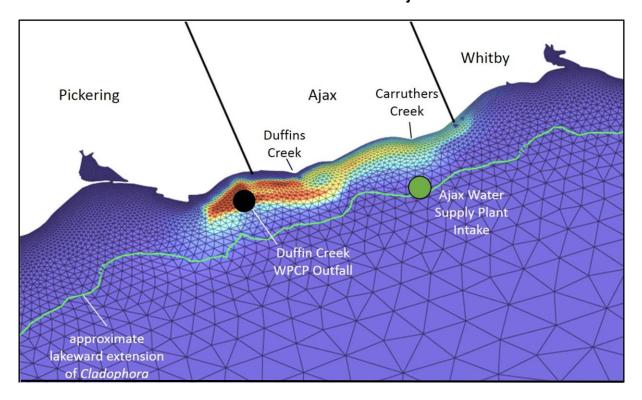


Figure 5 – MTU's Pollutant Transport Model Illustrating Retention of Pollutants from the Duffin Creek WPCP in the Ajax Nearshore

Meeting the Challenge of Phosphorus Management in the Nearshore

MTU has evaluated three options for separating BAP-rich phosphorus presently carried in Duffin Creek WPCP effluent from *Cladophora* habitat in the Ajax nearshore:

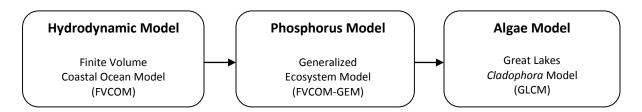
- 1. Use of advanced tertiary treatment (BAP-removal) in the WPCP, to remove the BAP from the effluent before it reaches the outfall and flows into the Lake:
- 2. Discharging effluent farther offshore, well beyond the lakeward boundary of existing *Cladophora* habitat; and,
- 3. A combination of options 1 and 2.

The results of the evaluation, intended from the outset to increase understanding of the following aspects of the Ajax nearshore to better inform management decisions regarding the Duffin Creek WPCP and Lake Ontario's nearshore waters, determined the following:

- The primary source(s) of phosphorus to the Ajax nearshore;
- How phosphorus is transported within and across the Ajax nearshore; and,
- The impact of phosphorus on algal growth within *Cladophora* habitat.

To do so, MTU developed and applied three mathematical models for Lake Ontario, supported by rigorous local field work and laboratory studies (Figure 6). Each model is required to be calibrated and confirmed to ensure the necessary credibility and reliability.

Figure 6 – Schematic of MTU's Linked Models for Lake Ontario



The linked models simulate the fate and transport of phosphorus (P) in the Ajax nearshore and also measure the impact of P concentrations on *Cladophora* growth, as described below:

- the Hydrodynamic model measures TP transport by tracking water movement after discharge from tributaries and WPCPs;
- the Phosphorus model simulates BAP consumption by *Cladophora* plants and phytoplankton and TP cycling by mussels; and,
- The Algae Model measures the impact of the consumed BAP on *Cladophora* plant growth.

Together, these models provide a comprehensive method for managing phosphorus sources and determining solutions to reduce the excess *Cladophora* impacting the Town's waterfront.

Phosphorus Provenance ... Where Phosphorus Comes From

Emphasis on Bioavailable Phosphorus

For 50 years, management decisions on Great Lakes eutrophication in the Great Lakes has been based on measurements of Total Phosphorus in open lake waters and eutrophic indicators such as algae levels, water clarity and bottom water oxygen depletion.

Dr. Auer indicates this approach is fatally flawed and will not rectify the phosphorus-*Cladophora* problem in nearshore water today *because Total Phosphorus is not an accurate indicator of the bioavailable phosphorus (BAP) ultimately fueling Cladophora growth.* Total Phosphorus (TP) is comprised of three components that have different levels of bioavailability:

- 1. Soluble Reactive Phosphorus (SRP);
- 2. Dissolved Organic Phosphorus (DOP, or decomposing biological materials); and,
- 3. Particulate Phosphorus (PP).

MTU's work has shown that less than half (41%) of the TP in Lake water, tributaries (rivers and creeks) and WPCP effluents is bioavailable. They have demonstrated that **SRP is essentially 100% bioavailable**, DOP is 55% bioavailable and PP is 21% bioavailable. This is why tributary discharges carrying TP loads (dominated by DOP and PP) play a less significant role in driving *Cladophora* growth than WPCP effluent rich in fully bioavailable SRP.

As the updated 2012 Great Lakes Water Quality Agreement requires, the "bioavailability of TP components" is to be taken into account to establish Substance Objectives for phosphorus concentrations and phosphorus loading targets specifically for nearshore waters.

Phosphorus Sources - Four Options

The bioavailable phosphorus fueling algal growth at Ajax may originate from four sources:

- 1. Offshore (open lake) waters;
- 2. Discharges occurring east of the Ajax nearshore;
- 3. Discharges occurring west of the Ajax nearshore; and,
- 4. Direct discharges to the Ajax nearshore.

MTU measured SRP levels at in-Lake sites extending from the Duffin Creek WPCP outfall to an Environment Canada sampling station anchored 21 km offshore and found that offshore waters have an average SRP level of 0.8 µgP/L that cannot cause excessive Cladophora growth.

Figure 7 illustrates MTU's ongoing evaluation of SRP transport alongshore from discharges occurring to the east, for example, the Corbett Creek WPCP in Whitby, and to the west, such as the Highland Creek WPCP in Toronto. It also shows the location of the Ajax Water Supply Plant intake relative to those WPCP effluent sources.

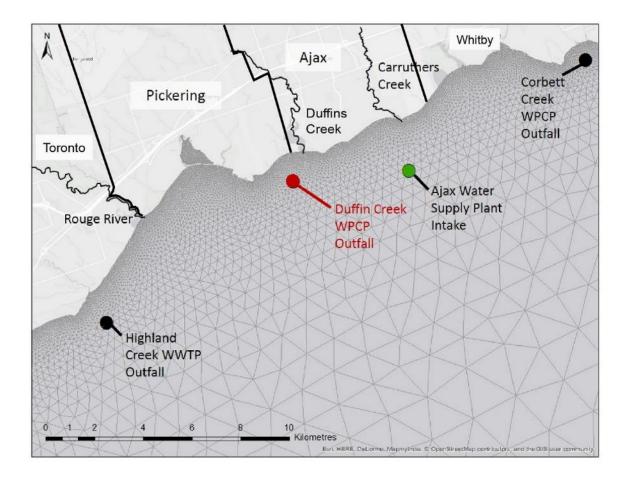


Figure 7 – Phosphorus Sources to the Ajax Nearshore

Three tributaries shown on Figure 7, namely the Rouge River, Duffins Creek and Carruthers Creeks, and the Duffin Creek WPCP, discharge directly to the Ajax nearshore.

Data on the flows and phosphorus concentrations of the tributaries and WPCP were combined to determine each source's load of TP.

Then Dr. Auer's group determined each source's BAP contributions during the *Cladophora* growing season (May-September), as BAP introduced into nearshore receiving water prior to that season do not influence excessive algal growth.

Figure 8 depicts the findings of these analyses, which demonstrate that the Duffin Creek WPCP releases 98% of the BAP entering the Ajax nearshore during the Cladophora growing season.

Phosphorus Provenance
... where it comes from

Direct discharges of phosphorus to the Ajax nearshore of Lake Ontario.

Duffins, Creek Carruthers Creek

AJAX

PICKERING

Duffin Creek WPCP

Duffin Creek WPCP Outfall

The Duffin Creek WPCP delivers 98% of the seasonal Bioavailable P load

Figure 8 - Sources of Bioavailable Phosphorus to the Ajax Nearshore

In contrast, discharges from the three tributaries contribute approximately 2% of BAP to the nearshore because they do not carry much BAP and their flows decrease during the *Cladophora* growing season.

Consequently, with the Duffin Creek WPCP being the major source of BAP directly to Ajax's nearshore water, more effective Lake Ontario and Duffin Creek WPCP management actions to remove BAP from the effluent are crucial to resolving the Town's chronic algae problem.

Phosphorus Transport ... Where Phosphorus Goes

Lake currents move the plume along the nearshore and, eventually, into offshore water to mix with more P-dilute lake water. A Hydrodynamic model (FVCOM) becoming widely adopted in the U.S has been developed for Lake Ontario by the MTU team, dividing the Lake into thousands of triangles (Figure 9).

Measured flows from tributaries and WPCPs were input to the nearest triangle, along with corresponding meteorological conditions (wind speed and direction) that drive Lake currents, to track pollutant movement.

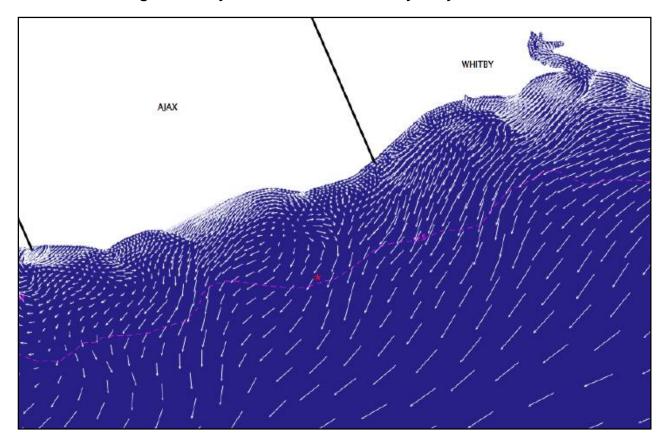


Figure 9 – Physical Framework for the Hydrodynamic Model

The Hydrodynamic model has been calibrated and confirmed to the extent required to rely on in making effective Lake Ontario and Duffin Creek WPCP management decisions.

This was accomplished by Dr. Auer's team comparing model output to actual measurements of substances in the Lake's water currents.

Conductivity (saltiness, or the water's ability to conduct an electrical current) and nitrate (NO₃; abundant in tributary flows and WPCP effluent) were measured, as both are typically used to indicate water quality in scientific studies.

Conductivity and nitrate data was collected by MTU in July and September of 2014 across an intensive network of monitoring stations along the Pickering-Ajax-Whitby nearshore shown in Figure 10.

Each monitoring trip involved approximately 700 measurements at water depths from the Lake surface to the lake bottom, at 84 stations along 14 transects along a 25-km stretch of nearshore.

Whitby Ajax Carruthers Corbett Creek **Pickering** Creek **Duffins** WPCP Creek Outfall Toronto Ajax Water Supply Plant **Duffin Creek** Rouge River Intake WPCP Outfall Highland Creek WWTP Outfall

Figure 10 – MTU's 2014 Sampling Network for Calibrating and Confirming the FVCOM Hydrodynamic Model

Due to physical differences between Lake water and the Duffin Creek WPCP effluent plume (temperature, density), the plume shifts between the surface and lakebed, to where the Lake water has a similar temperature and density. Depending on the season, the WPCP plume positions itself near the water surface, along the lake bottom or at a water depth in between.

Kilometres

Esri, HERE, DeLorme, MapmyIndia, ® OpenStreetMap contributors, and the GIS user com

As the WPCP plume moves away from the outfall, the plume spreads vertically in the water with distance away, mixing both upward to the water surface and downward to the lake bottom.

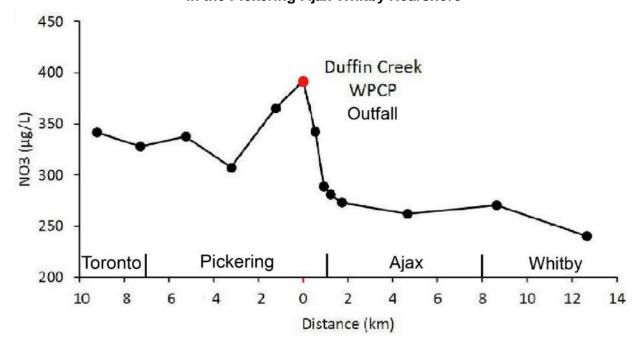


Figure 11 – MTU's Measured Pattern of Duffin Creek WPCP Plume Distribution in the Pickering-Ajax-Whitby Nearshore

The presence and extent of the Duffin Creek WPCP plume in subsurface water has been verified by MTU, as reflected by conductivity (nitrate) measurements shown in Figure 11.

During the 2014 monitoring period, the plume spanned the *entire* 7-km Ajax nearshore. Nitrate levels at and near the outfall (0 km), to the west for 10 km (0 to -10 km) and 14 km to the east (0 to 14 km), revealed several important WPCP plume characteristics:

- Highest (peak) nitrate levels were found not only at and surrounding the outfall but also stretched 3.5 km to the west and 1.5 km to the east;
- Elevated nitrate levels in nearshore water were measured 3 to 9 km to the west of the outfall, where the Duffin Creek WPCP plume mingles with the plume from the City of Toronto's Highland Creek WPCP; and,
- Somewhat lower nitrate levels were found throughout the entire Ajax nearshore, and east into Whitby, over a distance of 13 km east of the outfall.

Elevated nitrate levels in the plume from the Corbett Creek WPCP in Whitby were not identified because, in 2014, discharge from the Corbett Creek WPCP was relatively small (that is, less than 15% of Duffin Creek WPCP volume discharged).

MTU's monitoring demonstrates that phosphorus discharged by the Duffin Creek WPCP is, by far, the dominant BAP source to the Ajax nearshore, and maintains an essentially continuous presence or supply of BAP within sensitive *Cladophora* growth habitat. The degree to which the BAP fuels algal growth is governed by the BAP-rich SRP levels in effluent after treatment.

Fertilizing Effect ... What Phosphorus Does

MTU's hydrodynamic model was calibrated and its accuracy confirmed using plume samples from three WPCPs (Highland Creek; Duffin Creek and Corbett Creek) and three tributaries (Rouge River, Duffins Creek and Carruthers Creek). Close alignment was found between both the measured and modelled nitrate levels.

The Duffins Creek WPCP plume was detected at all water depths by nitrate levels measured in-Lake and when simulated in the Hydrodynamic model.

Alongshore transport of effluent plumes, including the Highland Creek WPCP and Corbett Creek WPCP, continues to be studied. Furthermore, the east-west movement of the Duffin Creek WPCP plume is essentially a constant presence in the Ajax nearshore over *Cladophora* habitat (Figure 12).

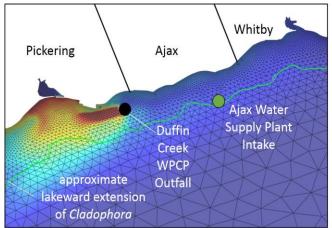
During the model simulation period (using July 2014 data), the plume exited the WPCP outfall and traveled west past Frenchman's Bay as well as east beyond Ajax into Whitby's waterfront - a lengthy route through nearshore waters. The plume also remained within 2 km of shore, essentially inside today's offshore limit of *Cladophora* growth habitat.

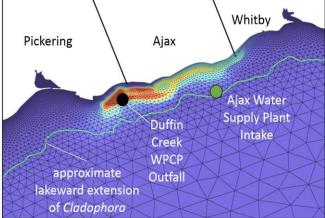
Dr. Auer advises that plumes have been regularly observed to remain in nearshore water in the Great Lakes, often in less than 30 metres water depth, and that, eventually, currents near the lakebed will move offshore - carrying BAP directly into *Cladophora* beds on the way.

Ministry researchers agree with Dr. Auer that hydrodynamic modeling should be used to evaluate WPCP plumes to better inform Great Lakes and WPCP management decisions.

Figure 12 shows how the Duffin Creek WPCP's plume migrates back and forth (east and west) from the outfall, as well as over the intake pipe for Durham Region's Ajax Water Supply Plant. The intake pipe is suspended in the water above the lakebed approximately 2 km offshore.

Figure 12 – Hydrodynamic Model Simulation of Plume Movement in the Pickering-Ajax-Whitby Nearshore





Combined, MTU's in-lake water quality measurements and hydrodynamic model demonstrate that BAP-rich effluent plume from the Duffin Creek WPCP - the dominant source of SRP in the Ajax nearshore – hovers continuously in the Ajax nearshore where *Cladophora* is growing vigorously. The degree to which the plume stimulates algal growth depends on the levels of phosphorus it carries, particularly SRP.

In the 2012 Agreement, biomass levels are required to be maintained below those considered to constitute nuisance conditions. This does not mean that *Cladophora* algae must be eliminated. An acceptable level of *Cladophora* biomass and a Substance Objective for phosphorus for Lake Ontario have yet to be established pursuant to the 2012 Agreement.

Notwithstanding this, a peer-reviewed paper by Fisheries and Oceans Canada and Ministry scientists, and as confirmed by *Cladophora* biomass measurements on the Ajax waterfront by MTU researchers (Figure 13b), have identified two possible standards for managing *Cladophora* in Lake Ontario:

- i) SRP concentrations of less than 1 microgram of phosphorus per litre (<1 μg/L); and,
- ii) Biomass levels below 25 milligrams of dry weight per square metre (<25 mgDW/m²).

With regard to the first standard, using their Great Lakes *Cladophora* Model (GLCM), MTU calculated three SRP concentration levels crucial to effectively manage and reduce excessive *Cladophora* growth in nearshore waters at Ajax:

- Limited SRP (<1 μg/L): algae grows at acceptable (normal) levels (Figure 13a);
- Transitional SRP (1-2 μg/L): growth is excessive with a local BAP supply present; and,
- Saturated SRP (>2 μg/L): growth can be maximized, as in Ajax's nearshore (Figure 13c).

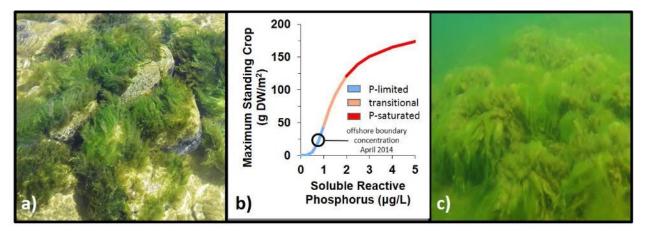


Figure 13 - Cladophora Biomass and SRP Concentrations

In Figure 13b, SRP concentrations in Ajax's nearshore ranged from Transitional (blue) to Saturated (red), with the Duffin Creek WPCP discharging at approximately 360 MLD.

Figure 14 further shows the entire Ajax waterfront impacted by the plume under contemporary conditions (360 MLD), using SRP levels measured by MTU from June 30 to July 6, 2014:

- Red area (highest impact) extending from the outfall east to Harwood Avenue, upstream into Duffin Creek and west to the Pickering Nuclear Generating Station; and
- Orange transitional area (lower impact) spreading east across the entire Ajax nearshore and well into Whitby's nearshore and west along the Pickering Nuclear Generating Station, into Frenchman's Bay and over to Petticoat Creek.

Thus, it is evident that at contemporary flows of 360 MLD, the Duffin Creek WPCP plume impacts the entire Ajax waterfront and most of the Pickering and Whitby waterfronts.

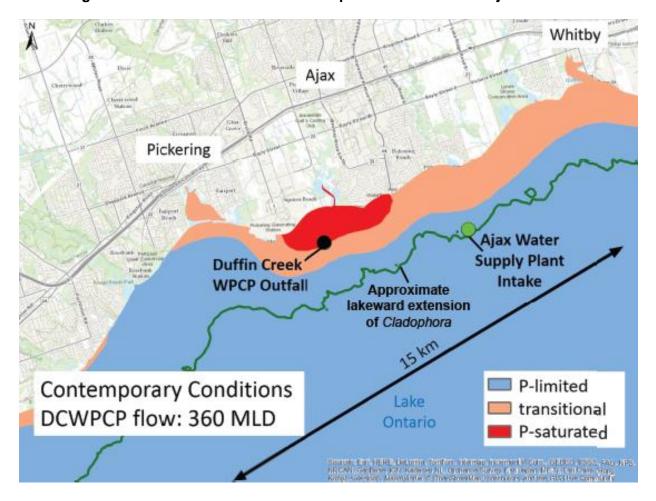


Figure 14 - Modeled Bioavailable Phosphorus Levels in the Ajax Nearshore

MTU's Findings

Adverse impacts to nearshore water quality and nearshore conditions resulting from nuisance *Cladophora* growth are expected to extend west across the Pickering waterfront and east into Whitby's waterfront, according to MTU's research team, who are continuing to investigate the situation using their linked models.

Managing the Phosphorus-Cladophora Problem

Today, BAP concentrations in Lake Ontario offshore waters *are not* sufficient to drive nuisance levels of *Cladophora* growth. As a result, scientific study is focusing on local sources of BAP, such as Duffin Creek WPCP effluent, being the dominant source of this fertilizing nutrient to the Ajax nearshore. From the completed three year program of field monitoring, laboratory measurements and mathematical modeling focused on the Ajax nearshore, Dr. Auer's team has determined that:

- Duffins Creek WPCP is the source of 98% of the bioavailable phosphorus discharged directly to the Ajax nearshore (where P comes from);
- the phosphorus-rich (relative to the needs of *Cladophora*) effluent plume from the Duffin Creek WPCP is held (by physical processes) in *Cladophora* habitat at Ajax for several days following discharge (*where P goes*); and,
- the WPCP's plume increases BAP concentrations in the nearshore waters above those required to support nuisance growth of *Cladophora* over the entire Ajax nearshore (*what P does*).

Simply put, MTU has demonstrated that the Duffin Creek WPCP is the root cause of nuisance *Cladophora* growth in the Town's nearshore.

These findings have been used by Dr. Auer to develop the following *Cladophora* mitigation management scenarios for the Ministry's consideration.

Cladophora Mitigation-Management Scenarios

The Duffin Creek WPCP's effluent contains phosphorus that is being discharged in excessive amounts to a sensitive and vulnerable location.

The suite of linked models developed and applied to the Ajax nearshore by Dr. Auer's group can both simulate the impact of Ministry approval of the Outfall EA and test management options for eliminating the WPCP as a stimulant to nuisance *Cladophora* growth. The following four management scenarios (simulating BAP as a conservative substance) were considered:

1) Baseline - Existing Conditions at 360 MLD:

Current WPCP effluent conditions (360 MLD flow) and BAP concentrations based on MTU's measurements and determination of bioavailability.

2) Outfall Extension – Changing the Outfall Location:

The WPCP's outfall is presently located 1 km offshore and discharges at a water depth of approximately 9 metres. The effectiveness of extending the outfall to a distance of 3 km from shore to discharge at a water depth of approximately 20 metres was evaluated.

3) Advanced Treatment – Changing the Amount of Phosphorus Discharged:

The WPCP currently removes phosphorus by adding ferric chloride to the effluent, followed by settling (commonly, conventional treatment). The effectiveness of advanced technology, ballasted flocculation (BF), for use in the WPCP was tested, based on

successful use of BF to remove BAP in the Syracuse (NY) Metropolitan WPCP for over a decade.

A report recently published by the Water Environment Research Foundation indicates that BF technology has been used successfully at other WPCPs to reduce BAP concentrations in effluent (prior to release) to ultra-low levels required to meet stringent discharge limits and protect the quality of receiving waters⁹.

4) Maximum Permitted Flow – The No Action Alternative:

As previously mentioned, if the Minister accepts the Regions Outfall EA and preferred solution, sewage flows treated at the Duffin Creek WPCP can increase to 630 MLD. Such a decision would increase the amount of BAP discharged by a factor of 1.75, expand the effluent plume's area of impact and increase excessive algal growth in the Ajax nearshore. In this scenario, the impact of a flow increase to 520 MLD (the maximum allowed under the 2007 Minister's conditions) while maintaining current BAP removal levels was examined.

MTU's testing of the above four management scenarios yielded the following results:

1) Baseline – Existing Conditions as 360 MLD:

Refer to Figure 14 - The entire Ajax waterfront, as well as parts of Pickering and Whitby, are experiencing transitional to saturated levels of BAP capable of stimulating nuisance *Cladophora* growth. This aligns with field observations of BAP concentrations and levels of stored P measured in *Cladophora*.

2) Outfall Extension – Changing the Outfall Location:

Refer to Figure 15 - An outfall extension to 3 km would eliminate the red area of Saturated *Cladophora* growth, but Transition-level phosphorus concentrations (orange area) - fully capable of supporting nuisance growth - would remain in the entire Ajax nearshore.

Neither extending the outfall to 3 km nor installing a new 3-km outfall would be suitable management approaches to eliminating the WPCP's stimulation of excessive *Cladophora*.

3) Advanced Treatment – Changing the Amount of Phosphorus Discharged:

Refer to Figure 16 - Use of proven advanced phosphorus removal technology (ballasted flocculation/BF) at the Duffin Creek WPCP, at the current flow and outfall location, would result in the reduction of BAP in the effluent to levels incapable of supporting excess *Cladophora* growth.

Advanced BF treatment would be a suitable management approach for eliminating the role of the Duffin Creek WPCP in driving nuisance *Cladophora* growth in the Ajax nearshore.

⁹ The Bioavailable Phosphorus (BAP) Fraction in Effluent from Advanced Secondary and Tertiary Treatment, by Michael T. Brett, Ph.D. and Bo Li, University of Washington (2015). www.werf.org

4) Maximum Permitted Flow – The No Action Alternative:

Refer to Figure 17 - The potential for further waterfront degradation was examined by simulating water quality with the WPCP operating flows (increased from the 360 MLD baseline) at the maximum 520 MLD flow of 520 MLD permitted by the Minister's 2007 conditions), with the existing level of phosphorus in effluent and present outfall location.

The red area (experiencing phosphorus-saturated conditions) would expand to cover more *Cladophora* habitat, likely increasing the level and extent of nearshore degradation.

These management simulations demonstrated that the linked models developed by MTU are valuable in characterizing the role of the Duffin Creek WPCP in stimulating *Cladophora* growth in the Ajax nearshore, and in developing and testing management actions that would provide relief to the Town of Ajax from waterfront degradation.

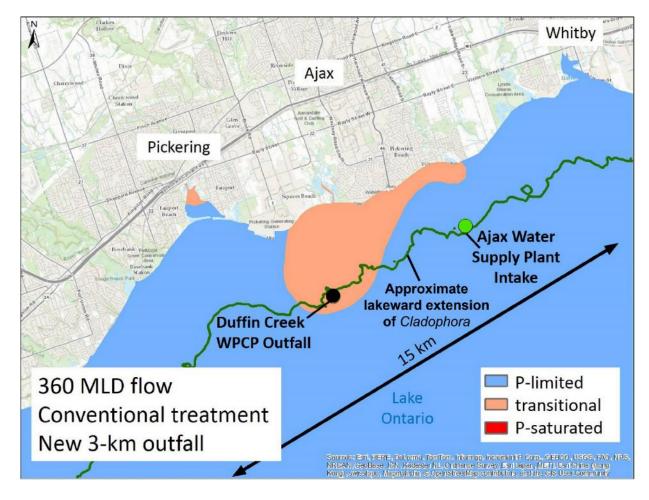


Figure 15 - Outfall Extension to 3 km

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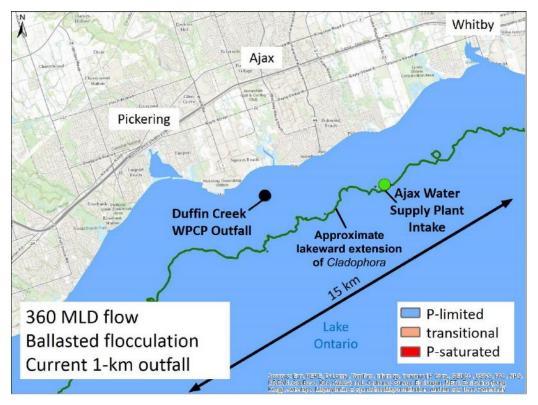
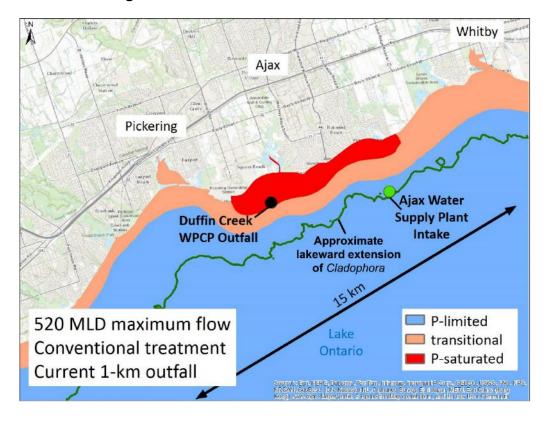


Figure 16 - Advanced Treatment: Ballasted Flocculation

Figure 17 - Flow Increase from 360 to 520 MLD



Estimated Cost of Actiflo™ Ballasted Flocculation

In documents filed with the Minister regarding the Outfall EA, the Regions estimated the cost of using Actiflo™ ballasted flocculation treatment technology year-round, to treat WPCP flows up to 630 MLD, as follows:

 Capital costs of \$151 million, with annual operating costs of \$4.2 million @360 MLD and \$6.9 million @630 MLD.

The Town has estimated that the use of Actiflo™ only during the *Cladophora* growing season (May to September) would cost 50% of the Region's estimated cost, as follows:

Capital costs of \$20-40 million @342 MLD, with annual operating costs of \$2.4 to \$3 million.

As an example, at the Metro Syracuse NY WPCP, the costs of using Actiflo™ were as follows:

Capital costs of \$14.8 million @319 MLD and \$20-60 million @630 MLD, with annual operating costs of \$2.5 million.

Ballasted flocculation has been successfully employed for control of BAP at the Metro Syracuse NY WPCP for over a decade. A report recently published by the Water Environment Research Foundation indicates that this technology has been successful at other locations in reducing effluent BAP concentrations to the ultra-low levels required to meet stringent discharge limits.

Summary of MTU's Scientific and Engineering Analyses to Date:

In summary, MTU's three years of studying the phosphorus-*Cladophora* problem in the Lake Ontario nearshore at Ajax have led to several conclusions:

- 1) Cladophora grows to nuisance proportions in Ajax's nearshore water, which is only evident at nearshore locations in Lake Ontario with local sources of phosphorus enrichment;
- 2) The Duffin Creek WPCP is the dominant source of phosphorus to Ajax's nearshore, releasing 98% of the bioavailable phosphorus (BAP) directly;
- This WPCP's discharge is continuous and its BAP-rich plume is held near the shore by lake currents, where it over-fertilizes *Cladophora* habitat, for extended periods before mixing with offshore waters;
- 4) Where the WPCP plume is present, BAP levels and the resulting stored phosphorus content in *Cladophora* plant tissues accelerates and can maximize nuisance algal growth;
- 5) The area impacted by the Duffin Creek WPCP plume extends from Pickering to Whitby, encompassing the entire Ajax waterfront;
- 6) Increasing today's 360 MLD effluent volume to the 520 MLD maximum approved by the Ministry in 2007 will expand the WPCP plume and also the impacted area and intensify impacts where nuisance algae is already growing. An increase to 630 MLD if the Minister

approves the Outfall EA without a significant reduction in phosphorus concentrations and loadings would have a proportionally more severe impact; and,

7) Extending the existing 1-km outfall or constructing a new longer outfall are options that hold little promise for solving the algae problem; however, installation and operation of advanced treatment technology in the WPCP, such as ballasted flocculation, would eliminate the WPCP as the primary, direct cause of the Town's *Cladophora* problem.

This scientific evidence provides a solid basis for the Ministry to:

- recognize the primary role that the Duffin Creek WPCP plays in stimulating nuisance Cladophora growth in the Ajax nearshore;
- establish stringent BAP (not TP) limits for the Lake Ontario nearshore as the Lake
 Objective for Lake Ontario under the 2012 Great Lakes Water Quality Agreement; and,
- revise the Environmental Compliance Approval for the Duffin Creek WPCP to incorporate stringent BAP limits using advanced treatment technology (ballasted flocculation).

Dr. Auer's Published, Peer-Reviewed Scientific Papers

Dr. Auer advises that *Cladophora* has taken center stage among the water quality issues facing managers in Lake Ontario.

Several peer-reviewed scientific papers co-authored by Dr. Auer¹⁰ and reflecting MTU's findings have been published in international journals regarding elevated SRP/BAP levels in nearshore water and *Cladophora* tissue coincides with the Duffin Creek WPCP's outfall versus low offshore levels; maximum *Cladophora* growth centres on the WPCP's outfall and declines as the distance away increases, and proven effective SRP/BAP removal technology (ballasted flocculation) has been used to reduce *Cladophora* growth in receiving waters in the Great Lakes¹¹. Further articles will be completed, published and posted on the Town's website.

As previously noted, the recent paper published in the *Canadian Journal of Fisheries and Aquatic Sciences*, lead-authored by Anika Kuczynski¹² of the MTU team, describes the resurgence of *Cladophora* in Lake Ontario and re-emphasizes the importance of phosphorus management in reducing and eliminating impacts.

¹⁰ Auer, M.T., Bradley, A. and Auer, N.A. 2015. Editorial – Growing the seed for a Great Lakes Commons. *Journal of Great Lakes Research* 41(3), p. 667-668. http://dx.doi.org/10.1016/j.jglr.2015.04.009
Identifies the Greater Toronto Area as the location for end game impacts on the Great Lakes.

¹¹ Lambert, R.S., Auer, M.T., Effler, S.W., Greene, M.R., Downer, B.E. and Kuczynski, A. 2015. Onondaga to Ontario: Management of bioavailable phosphorus in municipal wastewaters for control of *Cladophora. Journal of Great Lakes Research 41 (4), p. 1106-1113.* http://dx.doi.org/10.1016/j.jglr.2015.09.018
Demonstrates the effectiveness of ballasted flocculation for removal of bioavailable phosphorus.

¹² Kuczynski, A., Auer, M.T., Brooks, C.N., and Grimm, A.G. 2016. The Cladophora resurgence in Lake Ontario: Characterization and implications for management. *Canadian Journal of Fisheries and Aquatic Sciences 73: 1-15.* This paper was selected by the Journal for an Editor's Choice for its particularly high calibre and topical importance. http://www.nrcresearchpress.com/journal/cjfas
Confirms Cladophora resurgence and emphasizes the need to focus on phosphorus management.

Also, Dr. Auer, Ms. Kuczynski and their colleagues recently published a peer-reviewed paper in the *Journal of Great Lakes Research* titled, "Onondaga to Ontario: Management of Bioavailable Phosphorus in Municipal Wastewaters for Control of *Cladophora*." This publication documents the decade-long success of the Metropolitan Syracuse (NY) Wastewater Treatment Plant (Metro) in achieving exceptional levels of BAP reduction in its treated effluent.

These findings were applied by MTU, in conjunction with their pollutant transport model, to evaluate the effectiveness of the BAP removal technology employed at Metro Syracuse - alone or combined with extended offshore discharge - to eliminate the impact of phosphorus in Duffin Creek WPCP effluent on stimulation of excessive algal growth at Ajax.

At this time and going forward, additional scientific papers are being written and will be peer reviewed and published as a result of the ongoing modeling and research. The full series of scientific papers will be posted, as each is published, at www.ajax.ca/wpcp.

FINANCIAL IMPLICATIONS:

To date, Council has authorized approximately \$1.8 million for outside legal counsel specializing in environmental law, consultants with expertise in water quality, fish and fish habitat, wastewater treatment, air quality and odour monitoring, and for support of research by experts in *Cladophora*.

COMMUNICATION ISSUES:

Communications staff have prepared a readily implementable media program as needed.

CONCLUSIONS:

In staff's view, the Minister's Order to the Regions dated April 4, 2016 demonstrates willingness by the Ministry to amend the Duffin Creek WPCP's ECA to require mitigation of the adverse environmental impacts caused by direct bioavailable phosphorus inputs in effluent presently discharging from the outfall to reduce the excessive algal growth plaguing the Town's nearshore water and shoreline. However, the outcome and basis for an effective Minister's decision regarding the Town's Part II Order Request on the Outfall EA appears to be dependent on the content and quality of information to be provided in the upcoming PRAP study.

Therefore, it is vitally important to this community that the PRAP study is undertaken through an open, transparent process in which the Town and other interested parties are permitted to fully participate, and that the PRAP study be subject to a comment period of at least 90 days. This extended comment period will allow the public to review this technical study, and prepare and submit comments on the PRAP study to the Minister.

The Town will be particularly interested in the PRAP study's strategy to reduce the amount of SRP in WPCP effluent in the short, medium and long term. With the Minister's proposed TP limits considered by staff to be, at best, only short term limits, new BAP concentration and loading limits in the WPCP's ECA must be established - to reflect newly emerging science and WPCP management options identified by Dr. Auer and his MTU team.

Staff recommend that this report be endorsed and sent to the Minister of the Environment and Climate Change, the Regions of Durham and York and other interested parties forthwith.

| ATTACHMENT: |
|---|
| ATT: Minister's Order to the Regions of Durham and York dated April 4, 2016 |
| Barbara Hodgins, M.C.I.P., R.P.P. Senior Policy Planner |
| Kevin Heritage, M.C.I.P., R.P.P. Policy Planning Coordinator |
| Gary Muller, M.C.I.P., R.P.P. Manager of Planning |

Paul Allore, M.C.I.P., R.P.P.

Director of Planning & Development Services

Ministry of the Environment and Climate Change

Ministère de l'Environnement et de l'Action en matière de changement climatique

Office of the Minister

Bureau du ministre

77 Wellesley Street West 11th Floor, Ferguson Block Toronto ON M7A 2T5 Tel.: 416-314-6790 Fax: 416-314-6748

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APR 0 4 2016

X-ref package#

ENV1283MC-2016-534 ENV1283MC-2015-2123

Mr Barry Laverick. P. Eng. Project Manager Regional Municipality of Durham 605 Rossland Road East, Box 623 Whitby ON L1N 6A3

Mr Wayne Green, P. Eng. Project Manager The Regional Municipality of York 17250 Yonge Street Newmarket ON L3Y 6Z1

Dear Messrs' Laverick and Green:

Part II Order Requests- Class Environmental Assessment to Address Outfall Limitations at the Duffin Creek Water Pollution Control Plant

As you are aware, I received 90 Part II Order requests for the Regional Municipality of York and Regional Municipality of Durham (Proponents)' proposed Class Environmental Assessment to Address Outfall Capacity Limitations at the Duffin Creek Water Pollution Control Plant (WPCP) (Project).

Following the submission of the requests, Ministry of the Environment and Climate Change (ministry) staff met with the Proponents, heard from some of the requesters and consulted with ministry technical experts. Concerns were raised about the state of the waterfront and the inability to use the waterfront as a result of Cladophora algae growth that may be worsened due to phosphorus discharged from the WPCP. I have determined that further study by the Proponents is required before I make a decision on the Part II Order requests.

Messrs Green and Laverick Page 2.

Pursuant to section 16(3) of the *Environmental Assessment Act*, I am issuing an Order imposing the following conditions further to the requirements set out in the Municipal Class Environmental Assessment:

A. WPCP Phosphorus Reduction Action Plan Study - Requirements

1. The Proponents shall retain an independent qualified waste water expert to prepare a WPCP phosphorus reduction action plan (PRAP) study to determine how phosphorus concentrations and loads in the effluent from the WPCP can be reduced to the lowest achievable level prior to entering the outfall for both current and future operating conditions.

2. The PRAP shall include:

- a. data from the past five years on phosphorus concentration and loadings;
- a desktop study of optimization of plant operations to reduce phosphorus in the WPCP effluent;
- a study of new methods that could be employed to reduce phosphorus in the WPCP effluent;
- based on a. to c. above, consideration of options to reduce total phosphorus in the WPCP effluent, including an indication of how phosphorus and loadings would be impacted by each option;
- the determination of an option that will result in the lowest achievable level of total phosphorus levels in effluent, including an assessment of the operating implications of, and the modifications and costs required to achieve such reductions;
- f. a strategy to reduce the amount of soluble reactive phosphorus (SRP) in the WPCP effluent in the short, medium and long term including methods for the identification of current SRP levels, a method for determining how to quantify SRP reductions, and a description of methods to be used to measure reductions;
- g. identification of the seasonal window of nuisance Cladophora algae growth and how total phosphorus in effluent may be further reduced during this time; and.
- a determination of the feasibility of achieving a permanent (or ongoing) annual average concentration of 0.35 milligrams per litre of total phosphorus

Messrs Green and Laverick Page 3.

in WPCP effluent, as well as a total phosphorus load of 190 kilograms per day based on an annual average.

B. PRAP - Reporting Requirements

- 3. The Proponents must meet with the ministry at a minimum once while undertaking the study and once when the study is complete.
- 4. The PRAP shall be submitted to the Director, Environmental Approvals Branch, (Director) in 9 months from the date of this letter. The Proponents may apply to the Director, and the Director in his or her sole discretion, may grant an extension.

C. Public Posting

- 5. The Proponents shall post the completed PRAP on the Project website at the same time that the completed PRAP is submitted to the Director.
- 6. Within 45 days from the date the completed PRAP is publicly posted, any person may submit comments regarding the PRAP to the Director.

Should you have any questions about the information provided in this letter, please contact Ms. Kathleen Hedley, Director, Environmental Approvals Branch at 416-314-7288.

Thank you for your attention to this matter.

Sincerely,

Glen Murray

Minister