SPECIAL COMMITTEE OF THE WHOLE

Town of Newmarket
AGENDA
Newmarket

06 March 2017 at 10:00 AM
Council Chambers

Agenda Compiled 02/03/2017 at 4:00 PM

Additions and Corrections to the Agenda

Declarations of Pecuniary Interest

Presentations

1. The Records and Projects Coordinator to address the Committee with a PowerPoint Presentation regarding Internet Voting for the 2018 Election. (Includes presentation by Ms. Nicole Wellsbury, Director, Legislative and Information Services/Clerk Town of Ajax).

    (PowerPoint presentation to be distributed at the meeting).

Deputations

Items

2. Corporate Services- Legislative Services Report 2017-04 dated March 2, 2017 regarding Alternative Voting Methods for the 2018 Municipal Election.

    a) THAT Corporate Services Report – Legislative Services 2017-04 dated March 2, 2017 regarding Alternative Voting Methods for the 2018 Municipal Election be received and the following recommendation(s) be adopted:

    i) THAT Council endorse the use of internet and telephone voting as outlined in Option 1 of this report, for use in the 2018 Municipal Election;

    ii)AND THAT a by-law be brought forward for consideration by Council to the March 27, 2017 meeting to authorize the use of these alternative voting methods in the 2018 Municipal Election in accordance with Subsections 42 (1) (a) and (b) of the Municipal Elections Act, 1996;

    iii) AND THAT a third party security audit of the selected internet and telephone voting platform be conducted.

Adjournment

Town of Ajax
2014 Municipal Election

Town of Newmarket Council – March 6, 2017

Nicole Wellsbury, MPA

Director, Legislative & Information Services

2014 Ajax Election Priorities

Convenience & Accessibility

Environmental Sustainability

Integrity of the Voting Process

About Ajax

- Lower-tier municipality in Durham Region

- Geographic Size: ~67 km^2

- Population: ~120,000

- Elector Population: 75,000

- 7-member Council / ward system

2014 Election Model in Ajax

- 8 straight of Days of Voting – October 20-27, 2014

- Internet & Telephone options – no pre-registration required

- VILs mailed to electors in early October containing secret PIN & Voting instructions

- 8 days of Voter Assistance Centres (polls) with e-voting kiosks;

- Special voting at long term care and seniors buildings.

1-Step Authentication
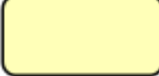
- Voter authentication rigor shifts from "voting phase" to the "enumeration phase";

- In Ajax, voters not required to "pre-register" for internet or telephone voting;

- VIL contained instructions on how to vote (phone no., website URL), and a secret PIN; DOB used as "shared secret";

- Using their PIN & DOB, an elector could access their ballot at any time during the voting period.

Voter Assistance Centres

- 10 VACs on Election Day;

- 7-12 staff per location, including greeters, Revision Officers, and E-voting Assistance;

- Contained a bank of voting laptops, plus one touch-screen voting kiosk;

- Approx. 30% of voters attended VACs; the rest voted remotely.

Legend

★	Touch screen kiosk
—	Extension/Power cord
▪	Electrical Outlet
—	Main Entrance
C	Chair
	e-Voting Kiosk Station *(2 kiosks per table)*
	Revision Officer Station *(2officers per table)*
	Welcome Table / Voting Place Manager Station
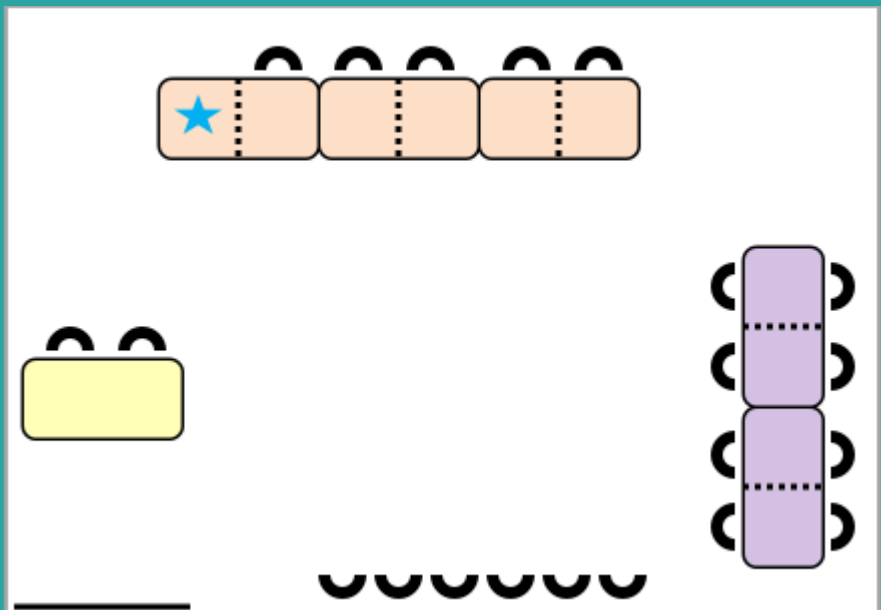
Communications

- Deputy Clerk Blog & Video Updates
- "Inside Internet Voting" Workshop
- Media availabilities/ Multi-cultural Media Night
- Go Station Wraps, mobile signs, radio interviews, etc.
- Infographics, swag (pens, magnets), door-hangers;
- Outreach visits to Welcome Centre, Seniors Centres, Youth spaces, etc.

BRING ON **THE VOTE**
Oct. 20 to 27, 2014

#VoteOnTheGO

2014 Town of Ajax Municipal Election
ajaxvotes2014.ca

online phone polls

BRING ON **THE VOTE**
Oct. 20 to 27, 2014

#VoteBetweenClasses

2014 Town of Ajax Municipal Election
ajaxvotes2014.ca

online phone polls

BRING ON **THE VOTE**
Oct. 20 to 27, 2014

#VoteWhileKnitting

2014 Town of Ajax Municipal Election
ajaxvotes2014.ca

online phone polls

BRING ON **THE VOTE**
Oct. 20 to 27, 2014

#VoteOnYourTime

2014 Town of Ajax Municipal Election
ajaxvotes2014.ca

online phone polls

Major Costs

- Total Election Cost: approx. $220,000

Item	Approx. Cost
Voting System + Production and Mailing of VILs	$150,000
Communications and Advertising	$15,000
Temporary Staffing	$13,000
Hardware Rental	$11,000

Challenges & Areas for Improvement

➤ Poor/inaccurate voter data

➤ Too many polls/under-resourced polls

➤ Last-minute voters/11th hour enumerations

... __NOT__ Major Challenges *(for Ajax)*

- Media negativity and skepticism
- Resistance from Council, A.A.C, Seniors groups
- Large volumes of angry voters due to lack of paper ballot option
- Widespread concerns around hacking and system security
- Reports of Voter Fraud and Vote Theft

Voting Data and Satisfaction Rates

Ajax Voter Turnout: 2010 vs. 2014
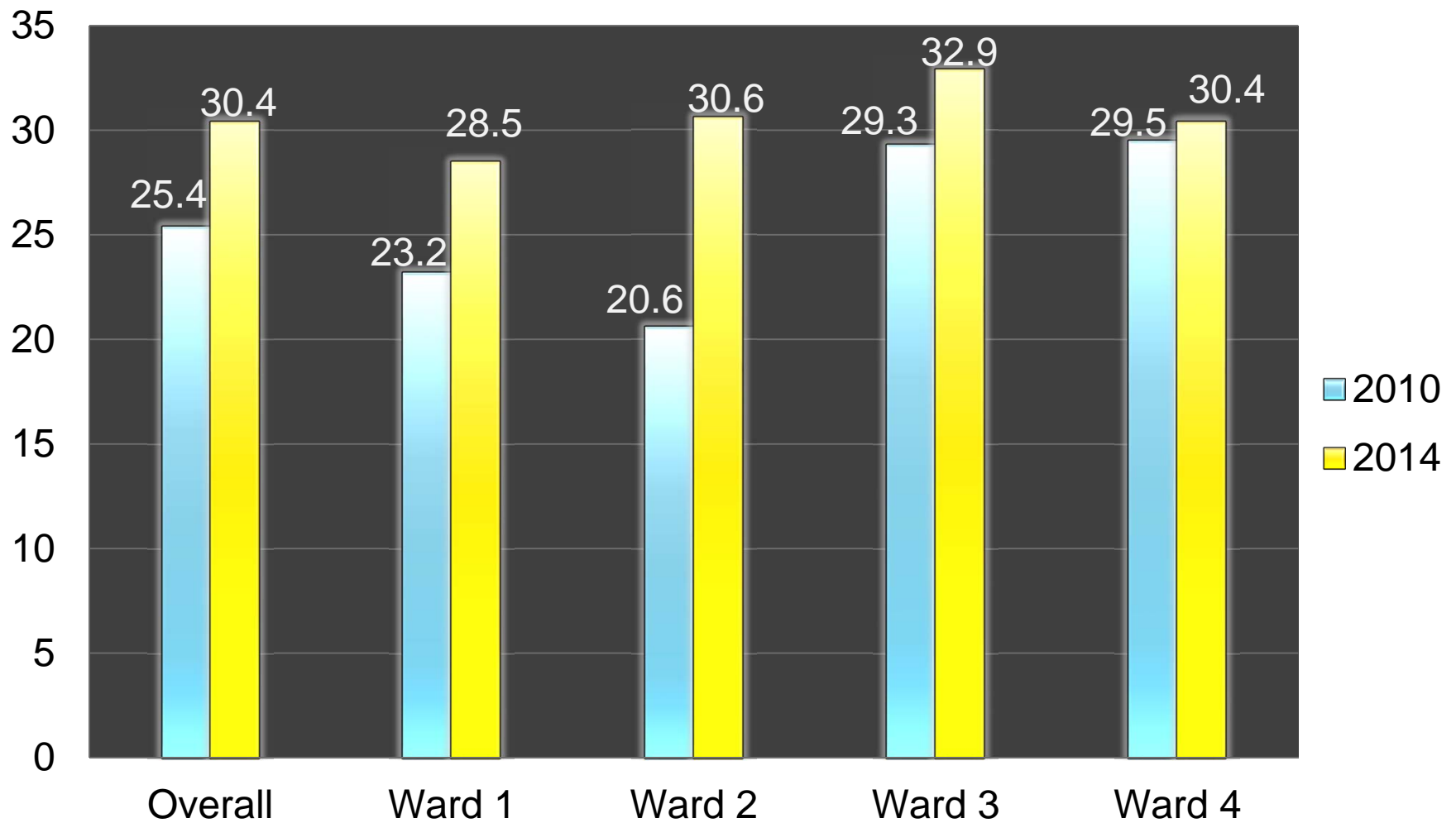
Ajax Online Voter Satisfaction Rate: 97.8%

How satisfied were you with the Online Voting Process?

Category	Value
Very satisfied	84.18
Fairly satisfied	13.6
Not very satisfied	1.17
Not satisfied at all	1.05

0 10 20 30 40 50 60 70 80 90

14
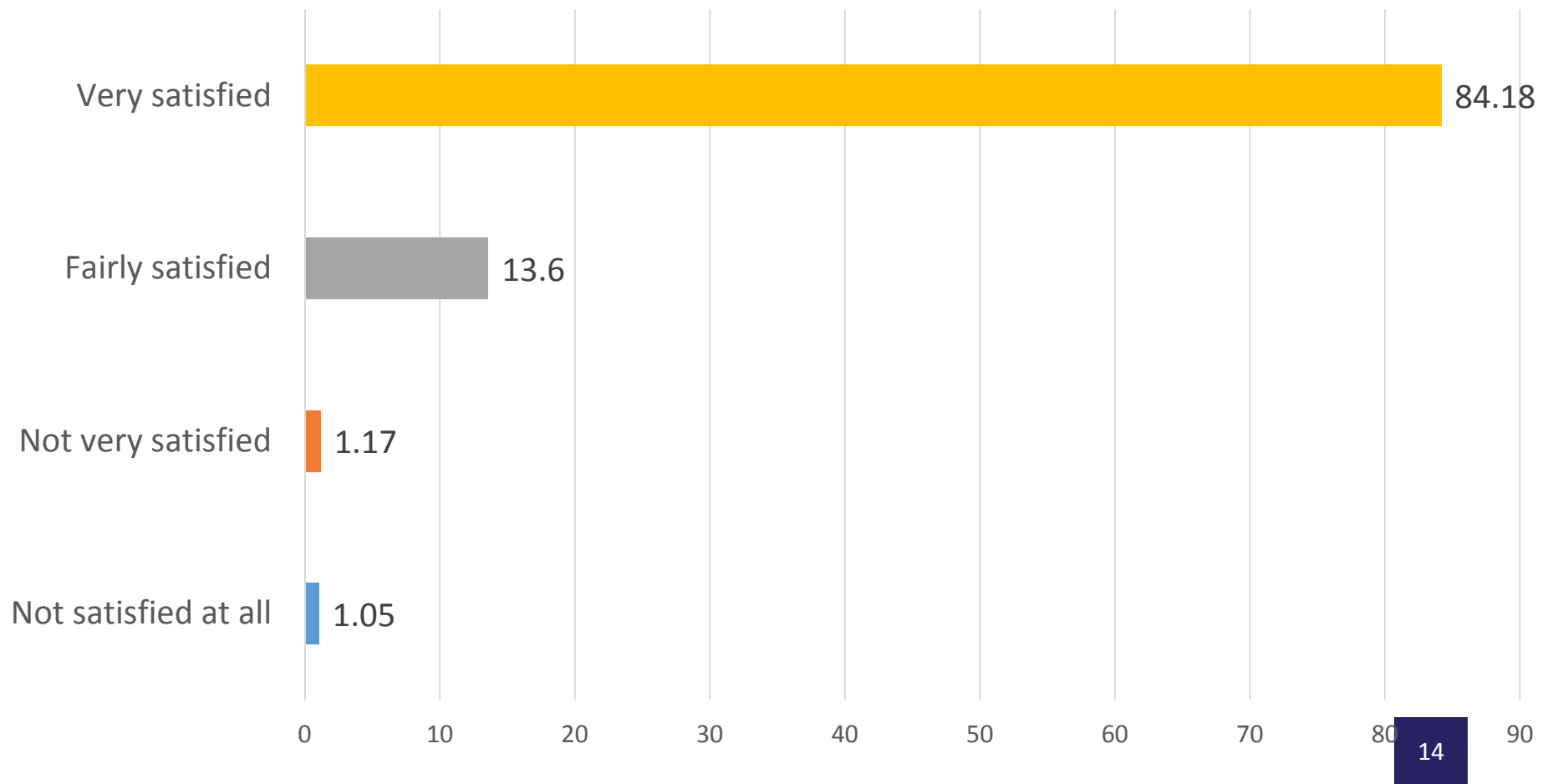
Twitter Activity

- "I just did my civic duty! Thanks @townofajax for making it so easy!! #AjaxVotes #online voting"

- "Best voting experience ever!! Thank you #TownofAjax for allowing your residents to vote online"

- "@townofajax getting my 72 year old mom on the voting list. She wanted to experience online voting."

- "I was pleasantly surprised how easy and quick online voting was. Hope it comes to Prov and Fed elections too. Great job!"

- "Just voted online. In my pyjamas. Quick, easy, fantastic. Thanks @townofajax. #WorkingMomNoTime

- "Easiest 10 mins spent today? Voting online for municipal elections! Yup! Online Voting! Benefit of living in the @townofajax! Go Vote!

- "Oh hey Toronto. I voted on Saturday night at home in my PJs while watching the game. Have fun today in the line. #AjaxVotes #21stCenturyVoting

- @CP24 I just spent the last 3 minutes voting online… with my feet up… eating lunch outside. @townofajax #avoidthepolls

- "It's a brave new world. Cast my municipal ballot online while making dinner. Embrace technology. @town of ajax #ajaxpoli14 #technology

Voting by Method & Device

Device	Operating System	Voter Sessions	%
Computer	Linux	88	87%
	Macintosh	1,716	
	Windows 7	12,734	
	Windows 98	1	
	Windows NT	2,395	
	Windows Vista	739	
	Windows XP	1,441	
Smart Phone	Android	614	5%
	Blackberry	49	
	iPhone	330	
	Windows	6	
Tablet	Blackberry Playbook	16	8%
	HP	5	
	iPad	1,829	
Other	iPod	4	<1%

Method of Voting

7.7%

92.3%

WEB PHONE

Voting Location
(#s are approximate)

30 %

70 %

Polls
Remotely
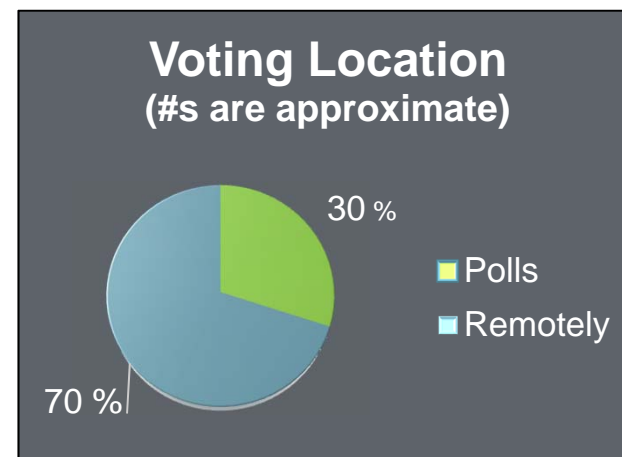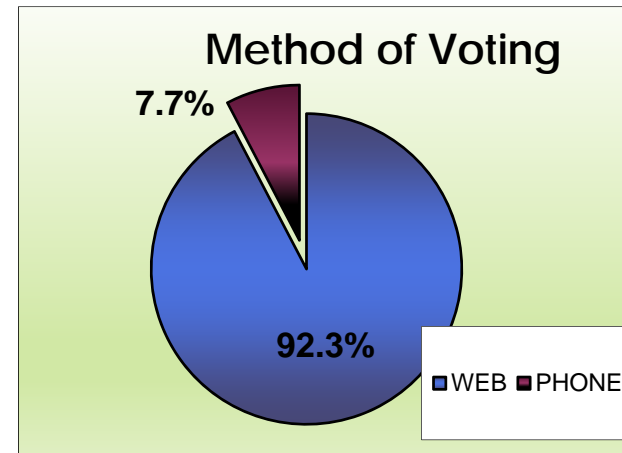
Results from Voter Survey (all participants)

- Internet voters are satisfied with the service (95% satisfaction rate)
- Convenience is the mean reason voters chose to use the service
- A majority of respondents (88%) voted from **home**
- Voters believe Internet voting to be the safest remote voting option
  - 66 percent say telephone voting is less than safe than Internet voting
  - 54 percent say mail-in ballots are less safe than Internet voting

Keys to successful use of e-voting in Ajax's election

1. Full I.T. Involvement, beginning to end
2. A Council that stands by their choice
3. Strong, reputable and invested e-voting provider
4. Thorough Policy & Procedure Manual
5. Full-scale communications campaign

Questions?

Electronic Voting for the 2018 Municipal Election

Special Committee of the Whole
March 6, 2017
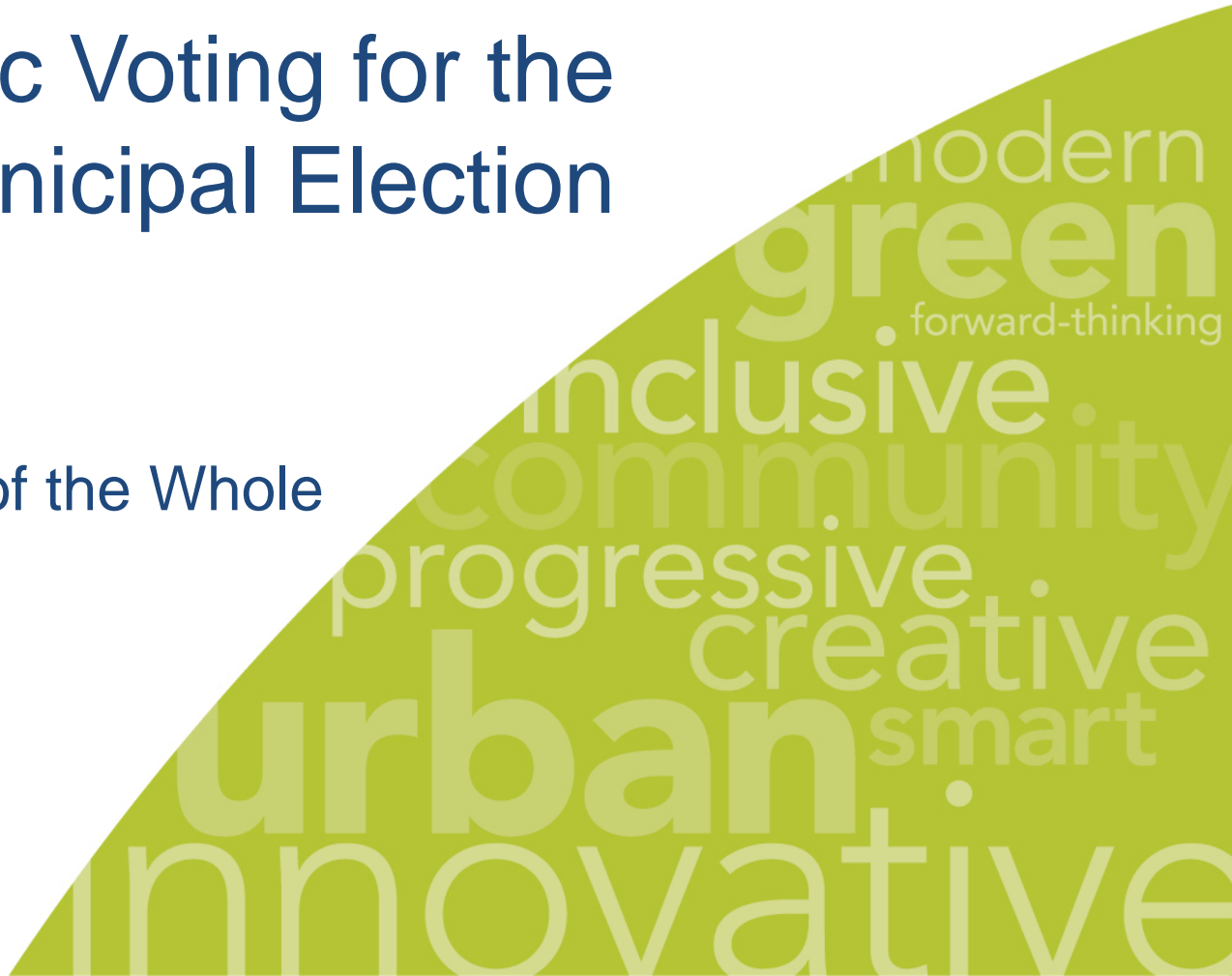
Purpose

- Continuation of discussion of internet voting from the January 30, 2017 Special Committee of the Whole

Outline

- Presentation from Director, Legislative and Information Services/Clerk Town of Ajax
- Presentation on the proposed model for Newmarket in 2018
- Q & A

Introduction

- Nicole Wellsbury, Director, Legislative and Information Services/Clerk Town of Ajax

- Alexander Harras, Deputy Clerk Town of Ajax

Presentation from the Town of Ajax

2016 Survey Results – Internet Voting portion

Which, if any, of the three options would you prefer for the 2018 election?

- 33%
- 22%
- 38%
- 7%
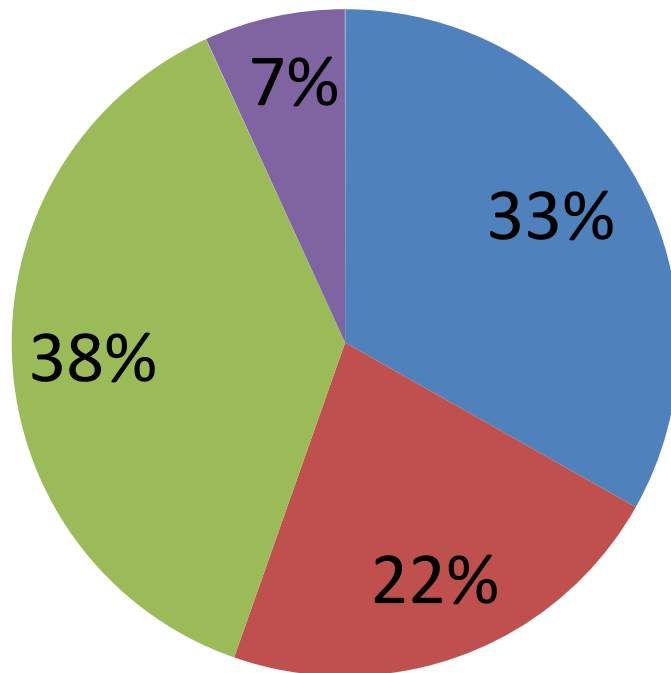
Option 1: Voting at polling station with traditional paper ballots and tabulators

Option 2: Remote internet voting

Both Option 1 and Option 2

No opinion

Options

Option 1 (Recommended)

- Electronic only option with internet and telephone voting

Option 1 - Proposed Model

- Remote internet voting for up to three full weeks prior to Voting Day

- Voter assistance centres at designated locations on specific dates and times determined by the Clerk

- On Voting Day the number of Voter Assistance Centres will be expanded

Option 1 – cont'd

- Special voting locations at long term care, retirement homes, and the hospital
- Electors will be provided with a Voter Information Letter (VIL) in advance of the first day of voting.
- The voting platform will operate using a live voters list

Election Costs

- Currently the Town places $80,000 each year into reserves.
  - The total budget for each election is generally calculated at $320,000.

  - A budget of $274,000 is estimated for an internet only election

Authentication

- "One-Step" Authentication vs. "Two-Step" Authentication

- One step authentication is predominantly used in municipalities where internet voting is the primary method
  - Innisfil, Ajax, Sudbury, Grimsby, Stratford, Tecumseh, Whitby (by-election)

- Two step authentication is predominantly used in municipalities using paper ballots as well
  - Markham, Peterborough, Burlington, Cambridge, Kingston, Brantford (and more)

Communications

- Greatest factor in ensuring internet voting implementation success was a comprehensive education & support campaign
- 2018 Municipal Election education & outreach plan could include:
  - Traditional communications tactics, tie-in to existing social media presence, Town events
  - Demonstrations, workshops & "pop ups" for both public & candidates
  - Online, telephone & in-person voter support before & during election period

CITY OF KINGSTON
216 ONTARIO STREET
KINGSTON, ON K7L 2Z3

Municipal Election

Monday, October 27, 2014

Voter Information Notice

Register for Internet and Telephone Voting:

www.CityofKingston.ca/vote

Voter Identification Number:

1010100000001

City of Kingston – Voter Instruction

Option 1: Internet and Telephone Voting

Now that you have received your Voter Information Notice, register at **www.CityofKingston.ca/vote** to use the Internet or telephone to cast your vote. You will be asked to enter the required information including your unique Voter Identification Number identified in the box at the top of this form. If you have questions on Internet or telephone voting, please contact the Election Office at 613-546-4291 Ext 1610.

Internet and Telephone Registration and Voting Period
Opens: Tuesday October 14, 2014 – 12:00 AM
Closes: Thursday October 23, 2014 – 8:00 PM

Option 2: Advance Poll In-Person Voting – Saturday, October 18, 2014

10:00 AM to 8:00 PM

Fire Station #8 – Training Room - Advance Voting Day

1485 Unity Rd

Option 3: Voting Day In-Person Voting – Monday, October 27, 2014

10:00 AM to 8:00 PM

Fire Station #9 – Training Room

2835 Highway 38

DISTRICT: 01   **POLL:** 001   **SCHOOL SUPPORT:** ES

Identification at the Polls

When you go to vote take both this notice and one piece of identification showing your name and qualifying address. If you forget this notice you may still vote, however you may experience delays.

Voting is easy when you are prepared! This notice cannot be used as identification; a list of acceptable identification is on the reverse side.
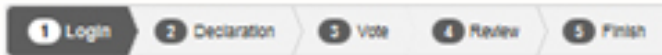
Vote Kingston
October 27, 2014
Municipal Election

Internet Voting in Ontario

- Internet voting growth among Ontario municipalities:
  - 2014: 97 (2.4 million electors)
  - 2018:
    - Most municipalities in the District of Muskoka have adopted internet and telephone voting
    - Guelph, Markham, Peterborough, Thunder Bay have all adopted the use of both internet voting and paper ballots

Options

Option 2 (status quo)

- Use of paper ballots and vote tabulators (current method) with process improvements and voting location changes
- Special voting opportunities for seniors, long term care residents & hospital patients

Timelines

Date	
March 6, 2017	Special Committee of the Whole – decision made regarding voting method
March 27, 2017	Alternative Voting Method By-law will be brought forward
May 1, 2017	**Deadline for adopting a by-law for an alternative voting method**
Spring 2017	Request for Proposal (RFP) for required election equipment will be developed
June – December 2017	Staff to develop policies and procedures for nominations, voting, use of Corporate Resources (Clerk's policies and procedures for voting must be prepared by the end of 2017 to meet the Municipal Election Act Requirements)

Questions?

Newmarket

March 2, 2017

CORPORATE SERVICES – LEGISLATIVE SERVICES 2017-04

TO: Committee of the Whole

SUBJECT: Alternative Voting Methods for the 2018 Municipal Election

ORIGIN: Legislative Services

RECOMMENDATIONS

THAT Corporate Services Report – Legislative Services 2017-04 dated March 2, 2017 regarding Alternative Voting Methods for the 2018 Municipal Election be received and the following recommendation(s) be adopted:

a) **THAT Council endorse the use of internet and telephone voting as outlined in Option 1 of this report, for use in the 2018 Municipal Election;**

b) **AND THAT a by-law be brought forward for consideration by Council to the March 27, 2017 meeting to authorize the use of these alternative voting methods in the 2018 Municipal Election in accordance with Subsections 42 (1) (a) and (b) of the Municipal Elections Act, 1996;**

c) **AND THAT a third party security audit of the selected internet and telephone voting platform be conducted.**

COMMENTS

On January 30, 2017 Legislative Services Report 2017-02 on Internet Voting and Ranked Ballots was presented at a Special Committee of the Whole meeting. At this time staff recommended that both internet voting and paper ballots be used as alternative voting methods for the 2018 Municipal Election. During this meeting, Council expressed concerns related to the additional costs of both a paper ballot/tabulator and internet voting hybrid model. Council requested that staff report back in 30 days regarding a model with the internet voting option only, including whether it could be provided within the current budget, and specifically detailing the Ajax experience from 2014.

This report recommends a revised voting method for the October 22nd, 2018 Municipal Election, based on a similar model to Ajax's 2014 Municipal Election.

Electronic Voting model (Option 1)
Internet voting is recommended for the 2018 Municipal Election with the inclusion of telephone voting. Telephone voting is generally bundled with the internet voting system (at no extra cost) and will offer an additional voting method for individuals who do not have internet access but still want to vote from the convenience of their home. Internet voting and telephone voting provide for enhanced service delivery, making the voting process more accessible by eliminating the need for travel to a voting location, increasing flexibility for voters, mitigating the potential for long line-ups at voting stations, and better addressing accessibility issues for persons with disabilities, or people who are ill or away from home.

In addition to being able to vote remotely from various devices during the three weeks prior to Voting Day, voters will also have the option to attend polling locations equipped with electronic voting stations (laptops, tablets or touchscreen all-in ones) available on set days and times throughout this period. Electors will be able to vote in person, at any available location (i.e. vote anywhere), and these locations will be referred to as a Voter Assistance Centres. These dates and times will be determined by the Clerk before the end of 2017. Generally staff propose an approach that would include fewer, larger polling stations that are fully resourced with election staff and IT support.

Proposed Process
Electors will be provided with a Voter Information Letter (VIL) in advance of the first day of voting. Those who choose to vote in person will need to bring their VIL, which will include a unique Personal Identification Number (PIN) assigned to them. Should there need to be revisions to the voter's information or to the Voters' List, revision officers with laptops will be available at every Voter Assistance Centre to update the voters' information and issue new PIN numbers for voting. The internet and telephone voting platforms would operate using a live Voters' List, which automatically updates the voter's information to "voted" once a ballot is cast. This would prohibit a person from casting a ballot at a Voter Assistance Centre and then going home to try and vote using the telephone or internet system.

Prior to Voting Day, Town facilities (to be determined) would be designated as Voter Assistance Centres as these facilities are physically accessible, and have stable internet access maintained by the Town (both wired and wireless). On Voting Day, the number of Voter Assistance Centres will be expanded to approximately five or six Centres. Locations will be determined based on factors such as internet access, location, and accessibility.

Special Voting Locations at long term care, retirement homes and the hospital will be provided as they have in past elections during the advance voting periods. Touch screen tablets with internet access through the use of rocket stick technology will be provided to each of these locations. Portable tablets have the potential to provide easy bedside service and would allow voters to cast their ballot from the convenience of their room/bed.

Staff at the Voter Assistance Centres will consist of revision officers and election workers to assist voters with the voting process and answer technology related questions. Each location will have revisions officers, election workers to assist with voting, customer service staff and a dedicated IT

staff present. Staff will be cross trained on all roles so that they can assist in whatever role is most needed at the time.

Should Council wish to pursue this Option, staff would undertake extensive pro-active education of the election to emphasize internet voting as a new voting system. The communication strategy would begin in early 2018 and continue through Voting Day. Further explanation of the approach and associated costs of the communication strategy can be found in the Discussion portion of this report.

Costs

The cost for the internet voting platform is estimated to be approximately $160,000, roughly $2.50 per elector (based on a current estimate of 60,000 electors) with $10,000 allotted for hardware rental or purchase. It is difficult to estimate the total costs based on the reported costs by other municipalities as there are multiple factors impacting the overall costs including population, number of eligible voters, existing vendor contracts, allocation of election budget, etc. It should be noted that in 2014, municipalities were quoted around $2.50 per elector for internet voting by vendors, but the total costs after the election were reported as significantly less, at approximately $1.00 per elector. This could be due to existing contracts with vendors, the competitive nature of the RFP process or efficiencies in administrating the election. Regardless, the $2.50 per elector rate was based on quotes from 2014, and although the actual costs for the majority of municipalities were less than the quoted rate, it is also possible that the rates in 2018 will increase due to the competitive nature of the industry and limited vendor options.

Staff are estimating that rates are likely to increase higher than what was paid in 2014 but stay approximately $2.50 per elector. Therefore staff feels that the overall estimate for an internet voting system of $160,000 is a reasonable estimate and staff have included the potential for changes in vendor rates for 2018 in this estimate.

A cost breakdown for Option 1 and Option 2 is attached as Appendix A. This breakdown includes other election related expenses and total cost estimates. The estimated total costs for Option 1 is $274,000.

Benefits of Alternative Voting Methods
There are many benefits of internet voting; it reflects changing lifestyles of Newmarket residents (commuters/snowbirds/business/travelers), it appeals to youth, it is a highly accessible and convenient tool, it forms a part of a multi-channel service delivery strategy, and it's considered to be a more environmentally-friendly method of voting.

Many municipalities such as Guelph, Markham and Ajax have implemented internet voting systems, and in 2014, 97 Ontario municipalities utilized internet voting for either the advance voting period or on Voting Day. Many municipalities have participated in post election studies that included residents' feedback. Generally, surveys indicated that voters were satisfied and comfortable with internet voting. Internet voting can provide convenience and flexibility for voters as it allows for votes to be cast remotely from most devices with internet access at any time of day during the election period. This means that residents who are out of town during the election period or students studying in another city for example, can still cast their ballot without the use of a proxy. Should Newmarket Council wish to pursue this Option, staff would recommend that a

post-election survey be conducted to assist with determining voter satisfaction and making recommendations for enhancing service delivery for future electoral events.

In addition, internet voting can provide independence for voters who would usually require assistance from a family member, election worker or interpreter to cast their ballot. Internet voting is more accessible to a diverse community as the webpage used to vote can be customized to suit the voters needs with respect to font size, language, etc. Voters would be able to change browser settings or utilize tools such as "google translate" to view the pages in another language. Alternatively, the vendor may provide a translating service for the online platforms as a customization feature, and the costs of this could be evaluated during the RFP process. For voters with accessibility concerns, such as limited mobility or visual impairments, internet voting enhances the voting process by making it easier and more accessible.

One of the benefits of telephone voting is that it does not disenfranchise voters who do not have internet access at home and cannot attend a Voter Assistance Centre because of accessibility concerns. In Ajax, voters were able to vote remotely through either telephone or internet voting methods and although the majority of voters (92.3%) used the internet to vote, 7.7% used the phone to vote.

Both systems allow the voter to review his/her selections and make any changes before submitting a completed ballot. In addition, the systems can be configured to prompt and/or disallow the voter to spoil the ballot by over voting or leaving blank offices.

Challenges of Alternative Voting Methods
The challenge with adopting an alternative voting method often resides with balancing the principles of the Municipal Elections Act (the "Act") with the "reasonable risks" associated with the alternative voting method. While the principles of the Act are not specifically articulated in the Act itself, they can be considered as follows:
a) Secrecy & confidentiality of vote is paramount;
b) Election must be fair, unbiased & accessible to all voters;
c) Integrity of the process must be maintained throughout election;
d) There should be certainty of results (they reflect votes cast); and,
e) Voters & Candidates to be treated fairly & consistently.[1]

If Council were to proceed with internet voting, processes consistent with principles of Act would be adopted. Internet voting requires the municipality to have a strong broadband connectivity within the municipal boundary, and this is something that Newmarket has. Other challenges include mitigating any potential attacks or threats such as a Distributed Denial of Service attacks (an attempt to make the internet voting platform unavailable by overwhelming it with traffic from multiple sources), to the internet or telephone voting platform, these are all security measures that would be a mandatory requirement of the vendor and would be enumerated in the Town's RFP, in addition to a third party security audit. To date there have been no challenges to the results of an election conducted using internet voting.

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[1] Affidavit of William Paul Jones sworn March 13, 1998, paragraph 14; Intervenor's Appeal Book, tab 1.

Ajax Model - 2014 Municipal Election
In 2014, the Town of Ajax used internet and telephone voting with a one-step authentication process for the Municipal Election using Intelivote System services. The voting period was eight consecutive days from October 20th to October 27th, 2014. In person polling was offered at ten locations using laptops on Voting Day. There were also seven advance poll dates including daytime, evening and weekend options.

Post-election results indicated that the voter turnout increased from 25.4% to 30.4% from 2010 to 2014.   However, it should be noted that the increase in voter turnout cannot be exclusively attributed to the use of internet and telephone voting, as voter turnout has many contributing factors such as "hot" Mayoral races, controversial issues in the community, and other demographic factors such age (youth typically do not vote at the municipal level) and socio-economic status. A professionally conducted post-election survey of Ajax voters indicated that the voter satisfaction was 97.8%.   Approximately 70% of voters cast their ballot independently/remotely without attending a polling station. On average it took voters 2 minutes and 9 seconds to vote by internet and 4 minutes and 14 seconds to vote by telephone.

The 2014 election required approximately 120 temporary election workers. Advance and special polls were primarily operated by only Town staff. Each Voting Day poll was managed by a Town staff member with the remaining positions filled by casual and part-time Town staff, committee members and persons obtained through general recruitment.

For the Town of Ajax, the 2014 Municipal Election was the first time the Town went fully electronic and the communication plan utilized, included various components such as a website and social media plan, advertisements at Town facilities, infographics and brochures, GO transit station ads and mobile signs, promotional videos and an internet voting workshop for residents and candidates with hands on demos. In addition, staff conducted outreach initiatives to particular groups within the community such as seniors and new Canadians. Town staff utilized corporate events as another means of public education. Ajax staff indicated that this communication strategy was successful and that for 2018, communication would further emphasis remote internet voting or the "vote from home" option rather than voting at the polls to mitigate the line-ups at polling locations, which were experienced during the 2014 Municipal Election.

Ajax's overall cost of the 2014 Municipal Election was approximately $230,000.

Discussion:

One-step versus Two-step Voter Authentication

One-step Voter Authentication:
In a one-step process, every eligible elector is mailed a Voter Information Letter (VIL) prior to the first day of the voting period. The VIL contains a secure URL to the internet voting platform, a secure telephone number, and a PIN which the voter uses along with their date of birth (which is not listed on the VIL) to access their online or telephone ballot.

A one-step process requires a piece of personal information from the voter, such as their birth date, to be used in conjunction with the PIN provided by the municipality.

In some cases, the requirement for an identifier was also eliminated for speed and simplicity purposes. Similar to vote by mail, where electors sign an oath, the online authentication process requires an elector to acknowledge an oath indicating that they are entitled to vote and have not already voted in the election.

Municipalities such as Ajax, Sudbury, Grimsby, Stratford, Innisfil, Tecumseh and Whitby during their 2016 by-election all utilized a one-step authentication process. It was noted that on average the municipalities that utilized the one-step authentication process were those that had internet voting as a primary voting method, and not just during their advance voting period.

Benefits of one-step voter authentication:
- More convenient than a two-step process because the voter does not have to "register" to vote.
- Faster voting process at the polling locations.
- Faster voting process for voting remotely because the voter does not have to wait to receive PIN after registering.

Drawbacks of one-step voter authentication:
- A potential "mail thief" could reasonably cast a ballot on another voter's behalf if he/she knew the person's date of birth.
- A one-step voter authentication process does not require the voter to develop any unique personal identifying information such as a password.
- The voter knows the secure URL to access the internet voting platform prior to the voting period.

Two-step voter authentication:

With two-step voter authentication, eligible electors are mailed a VIL that requires voters to register for internet voting prior to obtaining the necessary credentials to access and cast their ballot. The process involves mailing out VILs to electors with information about the voting process with a link to a secure website for registration. Once the voter has registered on the website, they are sent a PIN and a link to the secure internet voting platform through either a mailed letter or an email. The voter can only access the voting platform during the period which internet voting is "open" for casting ballots using a combination of the credentials they specified during the registration process (e.g. a personal password is usually selected during the registration process) and the PIN they received in their second notification from the municipality (i.e. a mailed letter or an email).

In the 2014 Municipal Elections, Markham, Peterborough, Belleville, Brantford, Burlington, Cambridge, Chatham-Kent, Kingston, Port Hope, Quinte West, and Timmons all utilized two-step authentication systems with varying amendments to the overall process. Based on staff's research, a two-step authentication is typically utilized when internet voting is offered as a supplementary voting method in conjunction with other voting methods such as paper ballots and tabulators.

Benefits of two-step voter authentication:
- Considered to be more "secure" than a one-step process because voter fraud would require a person to intercept two pieces of mail, or one piece of mail and hack into a voter's email account.
- Requires the voter to develop unique personal identifying information such as a password, which would be considered an overall enhancement to the security of the system.
- The voter does not know the secure URL to access the internet voting platform prior to the voting period.

Drawbacks of two-step voter authentication:
- Some voters may feel that the requirement to register to vote is inconvenient.
- There could be a delay in the mailing of the second letter to the voter once they have registered (however, this could be mitigated, if the second letter is sent via email).
- There may be voters who forget their unique password because of the time elapsed between the time they registered to vote online and the voting period.
- Delays in voting at the Voter Assistance Centres should registration be required prior to voting.

Staff will continue to evaluate the benefits and drawbacks of both authentication processes and will work with the vendor to develop the preferred approach for both remote and in person voting processes. Options such as using both authentication methods, for example using two-step authentication for remote voting and one-step for in person voting at the Voter Assistance Centres and other alternative third party security options will be explored.

Voters' List
One of the concerns with voter authentication is the quality of the additional personal information (e.g. date of birth) currently available on the Voters' List. The Voters' List is prepared by the Municipal Property Assessment Corporation (MPAC) and often contains errors and missing data. Given that MPAC's system is property based, and the additional information is collected only through an enumeration process which is often ignored by residents, and data such as date of birth is often incomplete or inaccurate. The Town undertakes significant efforts every election to clean up the Voters' List using available internal data, however there are always significant errors. Regardless of the authentication method chosen, staff will have to engage in an extensive process to clean up the Voters' List prior to issuing the VILs. The live Voter List has been used successfully for the 2014 Municipal Election and 2016 By-election.

Municipal Comparison
Based on consultation with other municipalities in York Region and Ontario, the traditional paper ballots with tabulators, a hybrid approach of internet voting and tabulators and a fully internet voting method are all options that are being considered for 2018 Municipal Elections. Although it is difficult to compare municipalities' approaches due to variations in budget, costs, population, communication strategies etc., it does appear that many municipalities are choosing to move forward with a form of internet voting for the 2018 Municipal Election. Markham, Guelph and Peterborough have will likely use a combination of internet voting and paper ballots with tabulators for the 2018 Municipal Election. The Towns of Bracebridge, Georgian Bay, Gravenhurst, Lake of Bays and Muskoka Lakes have approved a fully electronic election for 2018. The Town of Ajax is also proposing this approach for 2018. The Town of Whitby recently used internet voting only for

its 2016 by-election. The vast majority of municipalities are currently in the process of determining what voting method(s) will be used for the 2018 Municipal Election and have not reached a final decision at this point in time.

Communication Plan

Municipalities that have implemented full or partial internet voting options have used different communication approaches with varying cost levels. Historically, Newmarket has implemented extensive communication plans for each Municipal Election. Past communication plans have utilized a variety of tools to engage residents, encourage voting and provide voters with information about the voting process, voting locations, and voter eligibility, etc. If Council were to pass a by-law adopting internet voting, the communication plan would be consistent with previous years but would expand to include a shift in messaging that highlights the process, ease and convenience of internet voting with a greater emphasis on community outreach and proactive public education.

The communication plan would include public outreach at Town events and at various facilities and central areas (Upper Canada Mall, Farmers Market, Library, etc.), information available on the Town website, newspaper, social media accounts, brochures delivered to residents, banners and posters at Town facilities, promotional videos, television and radio ads. In addition, Staff also recommend hosting information sessions for residents and candidates to outline the internet voting process and demonstrate how internet voting works. Likewise, communication will be directed towards various community groups such as seniors and new Canadians, and information booths or displays can be set up at locations such as Seniors Meeting Place and the Library. Additionally, customer service staff would receive training to be able to provide answers to any voting related questions. An online voting hotline could be provided by the vendor and would be stipulated in the RFP.

It is difficult to estimate the costs of an internet voting communication plan by comparing those from other municipalities, as there are numerous factors that contribute to the communication budget including communication methods/tools, approach, overall election budget allocations, population and number of eligible voters, demographics, first time using internet voting; however, it is anticipated that there will be an increased cost to the overall communications budget. From the municipalities consulted, the average communication budget seems to be around $25,000 for elections that included or exclusively utilized internet voting. Based on this information and the costs from Newmarket's 2014 Municipal Election, staff has allocated $25,000 for communications for the 2018 Municipal Election, and an additional $5,000 would be recommended should internet voting be chosen because this method of voting will be used for the first time in the Town. It is expected that this budget allocation will cover the Town's existing communication plan while providing additional resources for further community education and outreach initiatives.

Ranked Ballot Consideration

It is important to consider how internet voting relates to the potential shift to a ranked ballots system in future elections, including the 2022 Municipal Election. Although it is too early to determine the best method for conducting ranked ballot elections, it is suggested that internet voting would improve speed and accuracy of counting and reporting election results for a ranked ballot elections. Council has requested that staff report back on internet voting and ranked ballots in 2019. If Council wishes to pursue internet voting for the 2018 Municipal Election, it should be noted that this transition period from a traditional paper ballot voting system to an internet voting

platform would allow voters to first be familiarized with internet voting, prior to potentially introducing a ranked ballot system for future electoral events in Newmarket.

Status quo plus enhancements (Option 2)
Option 2 includes the use of the current voting method, optical scan vote tabulators, but with enhancements to make the voting process more convenient for voters. Tabulators have been used in voting places in numerous municipalities, including Newmarket and provide accurate and quick election results.   Possible enhancements could include the use of a mobile voting option or "vote anywhere" within wards or Town-wide.

The aforementioned enhancements would be in place to make voting more accessible, flexible and convenient by creating new voting locations and times. In lieu of internet voting, various municipalities including Mississauga have opted for a "vote anywhere" option for the 2018 Municipal Election. This option would not limit voters to a specific location for voting and could be easily managed through a live online Voters' List.

Vote anywhere was successfully used for the Ward 5 by-election allowing voters to attend either of the two available voting locations.

Next Steps

Should Council provide direction on the voting method:

- The Alternative Voting Method By-law will be brought forward at the March 27 Council meeting for approval (By-law must be approved by May 1, 2017 to meet the Municipal Election Act requirements)
- A Request for Proposal (RFP) for required election equipment will be developed in Spring 2017
- Staff to develop policies and procedures for nominations, voting, use of Corporate Resources throughout 2017 (Clerk's policies and procedures for voting must be prepared by the end of 2017 to meet the Municipal Election Act Requirements)

Council may direct staff to bring back a report with additional information at the March 20, 2017 Committee of the Whole. However, the Alternative Voting Method By-law would still be required to be brought to the March 27, 2017 Council Meeting in order to accommodate the May 1 deadline.

BUSINESS PLAN AND STRATEGIC PLAN LINKAGES
This report relates to the well-equipped and well-managed link of the Town's Community Vision – implementing policy and processes that reflect sound and accountable governance.

CONSULTATION
Research and discussions were held with other municipalities, and the Information Technology and Communications departments and Innovation Team were consulted in drafting this report.

HUMAN RESOURCE CONSIDERATIONS
There no human resource considerations related to this report.

BUDGET IMPACT

Every year $80,000 is set aside in reserves for the election, for a total budget for each election of $320,000. An estimated cost breakdown for Option 1 and Option 2 is attached as Appendix A.

CONTACT

For more information on this report, please contact Sarah Niezen, Records and Projects Coordinator at sniezen@newmarket.ca or at 905-953-5300 ext 2213.
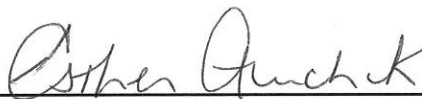
Hannah Leznoff, Council Committee
Coordinator

Sarah Niezen, Records and Project Coordinator

Lisa Lyons, Director of Legislative Services /
Town Clerk

Esther Armchuk, Commissioner of Corporate
Services

Appendix A - CORPORATE SERVICES – LEGISLATIVE SERVICES 2017-04
Estimated Cost Breakdown

Item	2014 Municipal Election Expenses	2018 Municipal Election Estimate - internet only (Option 1)	Option 1 Comments	2018 Municipal Election Estimate – status quo (Option 2)	Option 2 Comments
Vote tabulator equipment rental	$76,680	$0	N/A	$125,000	Costs expected to increase. Exact costs unknown. Estimate based on similar or slightly higher level of service as 2014 due to increase in electoral population.
Ballots	$30,920	$0	N/A	$35,000	Costs expected to increase slightly.
Internet voting platform	$0	$160,000	Estimate based on cost of $2.50 per elector plus additional $10,000 for hardware.	$0	N/A
Security audit	$0	$12,000	Independent security audit of voting platform	$0	N/A
Voters' List management system (Voter View)	$12,175	$13,000	Slightly higher costs expected, very similar to 2014.	$13,000	Slightly higher costs expected, very similar to 2014.
Communications and promotion	$18,935	$30,000	Similar communications and promotion to 2014 with enhancements and an additional component of internet voting included in the communications.	$25,000	Opportunities for enhancements for communications. Significant costs savings were realized in 2014 through joint advertising opportunities with other York Region municipalities.
Voter Notification Cards + postage	$9,000	$9,000	No change in costs, as notification cards would be replaced with voter information letters.	$10,000	Enhancements to notification cards would be planned.
Staff Support	$56,800	$25,000	Based on fewer voting locations, fewer staff overall per location.	$55,000	Similar to 2014, some opportunities for efficiencies.
Stationary, supplies, and miscellaneous	$64,200	$15,000	Costs would be less as supplies for voting locations such as rulers, pens, etc, would not be required.	$30,000	Some opportunities for efficiencies, supplies purchased in 2014 will be re-used.
Applications and website	$2,400	$10,000	Enhancements would be balanced against overall costs. Voting website would be included in platform costs. This would be allocated to tools for communication and promotion on the website or through mobile applications.	$12,000	opportunities for enhancements
Total	$271,110	$274,000		$305,000	