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CORPORATE SERVICES - LEGISLATIVE SERVICES – 2017-02

TO: Mayor Van Bynen and Members of Council

SUBJECT: Internet Voting and Ranked Ballots

ORIGIN: Legislative Services

RECOMMENDATIONS

THAT Corporate Services Report – Legislative Services 2017-02 dated January 26, 2017 regarding Internet Voting and Ranked Ballots be received and the following recommendation(s) be adopted:

- a) **THAT Council endorse Option 1, as outlined in this report for use in the 2018 Municipal Election;**
- b) **AND THAT a by-law be brought forward for consideration by Council to authorize the use of alternative voting equipment and an alternative voting method in the 2018 Municipal Election in accordance with Section 42 1 (a) and (b) of the *Municipal Elections Act, 1996*;**

REPORT SUMMARY

In response to the *Municipal Elections Modernization Act, 2016* and following up on previous information provided to Council potential enhancements to the 2018 Municipal Election have been reviewed with a focus on internet voting options and ranked ballot elections. Internet voting can take many forms but provides an alternative voting channel with significant potential benefits to accessibility and convenience. The *Municipal Elections Modernization Act, 2016* introduced ranked ballot elections as a new method for electing candidates into office (candidates ranked in order of preference). Municipalities in Ontario now have the option to implement ranked ballot elections instead of the traditional “first-past-the-post” system. With few examples of ranked ballot elections (none in Canada or Ontario) there are still many unanswered questions about how to implement ranked ballot elections at the municipal level.

This report recommends a voting method to be used in the October 22nd, 2018 Municipal Election to be considered at the January 30, 2017 Special Committee of the Whole meeting. This will allow Members of Council and the public the opportunity to consider the recommendations in the report, and forward any questions or concerns to staff prior to making a decision regarding the voting method for the 2018 election at the February 13, 2017 Council meeting.

Comments

Background information

On June 9, 2016 the Province of Ontario passed Bill 181, *Municipal Elections Modernization Act, 2016*. This Bill amends the *Municipal Elections Act, 1996* (MEA) and provides further opportunities for municipalities to adopt new alternative voting methods such as internet voting, as well as introducing changes with respect to third party involvement, financial statement filing and reporting and recount policy. In addition, the amendments provides municipalities with the option to adopt a new voting system, ranked ballots. Council is still required to authorize the use of any alternative voting equipment (such as optical scan vote tabulators or vote by mail, telephone or internet voting). Should Council wish to pursue a ranked ballot election, a by-law must be passed by May 1st 2017, and public consultation must take place before this date.

Voting Method Options

This report outlines three voting method options that could be implemented for the 2018 Municipal Election. The following criteria were established in determining the selection of voting method options:

- Voting method complies with requirements of the MEA, related legislation such as the Accessibility for Ontarians with Disabilities Act and case law
- Voting method reflects the principles often referred to by the courts when evaluating matters relative to the Act:
 - o Secrecy/confidentiality of votes cast
 - o Fairness, non-bias
 - o Accessibility
 - o Integrity of voters, candidates and election officials
 - o Certainty of vote result
 - o Voters and candidates treated fairly and consistently; and
 - o Valid votes counted and invalid votes rejected
- Voting method can be implemented within available budget, staff and other resources
- Voting method has been successfully deployed in binding Ontario municipal elections
- Voting method can be readily understood and adopted by voters following a period of public education, and
- Voting method continues to rely on the principles of voter and candidate trust, the responsibilities of voters and candidates, and corresponding penalties and enforcement tools for offences

Option 1- Internet Voting (Recommended)

Section 42 of the MEA provides Council with the authority to permit alternative voting methods that do not require an elector to attend a voting place, such as internet voting.

Although there are many different forms and methods of internet voting, Option 1 will focus on a hybrid approach that combines remote internet voting with traditional voting using optical scan tabulators. With this option, remote internet voting would allow voters to cast their ballot from any device with internet access (computer, smartphone etc.) during an advance voting period and voting day. This option is convenient as it does not restrict when and where the voter can cast their ballot and it extends for the entire advance voting period (approximately 2 to 3 weeks) and until polls close on voting day. Then, on identified advance voting and election days, voters will still have the opportunity to vote in-person, using the current voting method with paper ballots and tabulators. Although combining both methods may be more expensive than implementing one method for the entire election, this approach allows voters to choose which method they are most comfortable with and will provide staff with the opportunity to evaluate public interest in and use of internet voting for future elections.

In staff's opinion, this approach to internet voting supports the following:

- Principles and requirements of the *Municipal Elections Act, 1996*
- Enhanced convenience by providing both online and paper ballots options
- Enhancements that support changing demographic and lifestyles
- Accessibility and independence for persons with disabilities
- Promoting a virtually-engaged electorate
- Demonstrating leadership in electronic service delivery.

Staff understand that security is a top priority during an election and as such, it is important to know that the internet voting option would only be implemented after the completion of a security audit performed by a third party.

Option 1A

Should Council wish to pursue a less extensive online voting approach, an alternative to Option 1 is Option 1A which would include an online electronic system for voting at the voting locations in addition to traditional paper ballots. With this option, voters could choose to cast their vote online through a laptop or tablet kiosk at the voting location, or using the traditional paper and tabulator option. Although this method does not achieve the same level of convenience that remote internet voting would, it does provide a familiar environment for voters to try a new voting method. Staff would be present at the voting locations already; therefore there would be support for voters who need assistance going through the electronic voting process. This option would still require voters to attend a specific voting location (advance vote or on voting day) during the time permitted.

Option 1A does not achieve the convenience, flexibility and accessibility benefits that remote online voting has, but it does address some of the security or identification concerns associated with remote online voting. This option may be a good starting point to evaluate the level of interest

in online voting while still providing a similar voting experience for voters providing voters with paper ballots as well.

Appendix A provides further details about the different options related to internet voting as an alternative voting method. Appendix E also summarizes the results of a telephone and internet survey that was conducted to gauge public interest and understanding of internet voting. The survey results indicate that although members the public may be open to considering various online voting options, they are generally concerned about security and validating identification. Should Council wish to pursue internet voting options in 2018, staff recommend a hybrid approach with internet voting methods available for an advance voting period and traditional paper ballots on voting day and advance voting days. Although this approach may be more expensive than implementing one voting method for the entire election period, it provides electors with options and provides staff with the opportunity to evaluate the success of internet voting on a smaller scale. Therefore, this option provides an opportunity to test a new voting method while mitigating the risks associated with a fully online election.

Option 2- Status quo + enhancements

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 hub, or “vote anywhere” within wards or possibly 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.

Ranked Ballots

Despite potential interest in electoral reform and the use of ranked ballots, staff does not recommend implementing this change in 2018. Primarily, staff feels that the timeframe does not allow for substantial public education and awareness about electoral reform and there is a real concern that the public will not have sufficient time to fully understand or accept a new voting system. Likewise, ranked ballots have not yet been successfully utilized in any Ontario municipality to date, and as such, staff recommend re-evaluating ranked ballots for the 2022 Municipal Election, at such time that further information is available from the public and other municipalities (or provincial and federal government) for proper evaluation. Moreover, the amendments to the *Municipal Elections Act, 1996* require a minimum of two public meetings regarding ranked ballots before the by-law is passed on May 1. This timeframe does not allow for

the required time and resources to prepare for and administer public meetings, determine and analyze costs and financial implications, provide sample and test ballots, provide information to residents by mail, provide information online to residents, gather public feedback and create a procedure by-law for ranked ballot elections.

Appendix B summarizes the ranked ballot process and potential benefits and drawbacks of shifting to a ranked ballot election (RBE) process in 2018. With the *Municipal Elections Modernization Act, 2016*, municipalities now have the option to implement a ranked ballot election, in lieu of the traditional “first-past-the-post” voting systems.

Staff conducted an online and telephone survey to determine how much the public knows about ranked ballots and whether or not Newmarket residents would welcome the change. The survey results indicated that switching to a RBE would not change their likelihood of voting and of those who responded, many indicated that they would like more information about ranked ballots. A shift to a ranked ballot election is a complete overhaul of the election process and would require significant costs to implement for 2018. In addition to costs for new technologies, additional staff and increased training (among others), there is a significant risk of discouraging or confusing voters. Should Council wish to move forward with a ranked ballot election, there must be additional budget set aside for communications and outreach to educate Newmarket residents about RBEs and the voting process. As this is a fairly new change, staff recommend evaluating how other municipalities implement ranked ballots, if any chose to in 2018, and wait for clear guidelines and regulations to be developed at the provincial level before implementing the system at the municipal level.

Appendix C outlines estimated costs for 2018 with implementation of both internet voting and ranked ballot options based on 2014 costs.

Appendix D provides a sample of a ranked ballot.

Appendix E provides a summary and breakdown of the telephone and online survey conducted on internet voting and ranked ballots.

Conclusion/Recommendation

To modernize the voting process, and improve the voting experience for electors, there are various options that can be explored for the 2018 Municipal Election and beyond, most notably, the use of internet voting. However, changes to the current voting method may involve financial and administrative costs or risk that would need to be considered before implementation.

Staff recommend:

- That Council consider implementation of remote online voting for an advance voting period and on voting day with traditional ballots at voting locations on advanced polls and on voting day.

- That internet voting be chosen pending security testing by a third party in combination with optical scan vote tabulators at voting locations
- That Council wait to implement ranked ballots until after the 2018 election period and staff report back prior to 2022.

Appendices

Appendix A – Internet Voting

Appendix B – Ranked Ballot Elections

Appendix C – Estimated Budget Costs for Internet Voting and Ranked Ballot Election

Appendix D – Sample Ranked Ballot

Appendix E – 2016 Telephone and Online Survey Results on internet voting and ranked ballots

BUSINESS PLAN AND STRATEGIC PLAN LINKAGES

The initiative 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

The Information Technology and Communications departments were consulted in drafting this report. As well extensive research and discussions were conducted with other municipalities, and with election vendors.

HUMAN RESOURCE CONSIDERATION

There are no human resources considerations related to this report.

BUDGET IMPACT (CURRENT AND FUTURE)

Please see Appendix C for potential budget impacts.

CONTACT

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Esther Armchuk, Commissioner of Corporate Services

Appendix A Internet Voting

Summary

- Internet voting in various formats has been successfully adopted by multiple municipalities in Ontario since the early 2000s
- Despite some belief, research does not support the claim that online voting increases voter turnout or increases youth voting
- Various forms of internet voting include remote internet voting, kiosk internet voting and centralized internet voting/voting location
- Ontario municipalities have conducted internet voting elections in various ways, either for the advance vote period only, advance vote and on election day at polling locations, remote internet voting only or a combination of the above
- Internet voting can provide electors will flexibility and convenience, especially remote internet voting that would allow voters to cast a ballot from any device that connects the internet (at any time during the voting period)
- Although there have been minimal documented by municipalities that have opted for internet voting options, there is still a risk with respect to technological malfunctions, security threats and privacy concerns.

Background Information

The Municipal Elections Act, 1996 (MEA) permits municipalities to introduce alternative voting methods in addition to, or in replacement of the traditional paper ballot. As many government services are moving online, and public trust in online services such as online banking and purchasing have increased, many Ontario municipalities have opted to introduce internet voting options since the early 2000s. As of 2014, 97 municipalities in Canada have used some form of internet voting in their Municipal Elections. This is a significant increase from the 44 that utilize internet voting in 2010. Where implemented, online voting has received positive feedback from electors and administrators and has been utilized by multiple municipalities including Markham, Ajax, Peterborough, Stratford, Brantford, Kingston, Wasaga Beach, Guelph and Cambridge.

Research conducted on internet voting by Nicole Goodman, Research Director the Centre for E-Democracy provides feedback from voters, candidates and election administrators in 47 of the 97 municipalities that offered internet voting options in the 2014 election. In her report, Goodman states that "broadly the study finds support among stakeholders for Internet voting in local elections." It was found that generally the groups surveyed were satisfied with internet voting and a strong majority who used internet voting said they would recommend it to others. Goodman states that voters appreciate options, choice and convenience for voting. Goodman also states that although online voting has not been directly linked to increased voter turnout, research does suggest that online voting can engage electors with less committed voting histories and bring infrequent voters to the voting process. In addition, online voting can be less expensive as the approximate cost per elector is 0.81 for internet voting versus 5.63 for in-person voting, according

to the statistics from Markham. A copy of the full report is available at http://www.centreforedemocracy.com/wp-content/uploads/2016/08/IVP_Report.pdf

For example, in 2014 the Town of Ajax implemented a fully electronic election by offering the following options: remote internet voting, vote by mail and voting on laptops/kiosks at voting locations (advance polls and voting day). The Town of Ajax had ten voting locations in central areas for the purposes of having larger, but fewer locations. Overall, post-election surveys indicated that residents of Ajax were satisfied with internet voting. 97% of voters indicated they were satisfied and would recommend internet voting to others. Although it cannot be linked to internet voting alone, the voter turnout in Ajax increased from 25.4% in 2010 to 30.4% in 2014 with 92% of votes cast online and 8% of votes cast by mail. Interestingly, 70% of the voters cast their vote remotes (from home, work etc.) and only 30% were cast in person at the voting locations. It was reported that voting online took an average of 2 minutes and 49 seconds. There were votes cast by residents from over 16 different areas (other provinces, the United States etc.). The main challenges faced by election staff was the poor quality of the voter list as received by MPAC and a crashing of the host site at the end of Election Day. Although the Town had originally planned to display the results through the host site, the results were then displayed from the Town website and other media outlets. Staff also reported that a large portion of voters cast votes on voting day (55%) so in the future there will communication directed at voting during the advance voting period to minimize wait times and long lines at voting locations, especially in the evenings. Further improvements include changes to wording on the website during the voting process such as a screen that clearly states "You are now finished voting." Despite some small areas for improvement, survey results indicated that voters, election staff and candidates were overall very satisfied with a fully online election. Similar responses were noted after the implementation of online voting in Guelph and Markham.

Although internet voting was originally thought be a driver for increasing voter turnout and engaging a younger, more technologically advanced voter, research and general election results do not support this assumption. Academic studies and municipal statistics do not indicate that internet voting has had a significant impact on voter turnout. However, internet voting has been a successful customer service initiative that can lessen wait times and congestion at voting stations and has made voting more convenient and accessible. Internet voting provides a method of voting that may encourage participation from voters who may have previously faced barriers to voting such as mobility and time constraints.

Current Status

Currently the Town of Newmarket administers elections through the use of optical scan tabulators that electronically record and count ballots. This method has been effective in ensuring accuracy and providing a concise count and result period. Tabulators have been used in Newmarket since 1997. Internet voting can be used in combination with, or as a replacement for tabulators, depending on whether the Town implements a fully online election, or opts for a hybrid approach using internet and paper ballot with tabulator voting.

Types of Internet Voting

1. Remote Internet Voting

Remote internet voting allows electors to cast ballots online anywhere with internet access using devices such as computers, laptops, tablets and smartphones. Voters would login from their device, verify their security information and cast their ballot from the same device. This option is the most convenient and accessible for votes as it allows them to vote from their home, work, in transit and at any time of day. Electors with accessibility challenges would benefit from not having to travel to specific locations to vote, and may be able to vote more privately and independently. In addition, an online voting method provides for flagging of improperly marked ballots, and modification of font size and screen language.

Criticism of remote internet voting is that this format of voting poses the greatest security risk as it also has the most minimal involvement and oversight by election staff. Without having staff physically present to oversee the voting process, there may be risks associated with elector identification and eligibility, coercion, privacy and ensuring statutory requirements are met. There is the potential for pressure on electors to vote in a certain way in the presence of others. In addition, errors or inaccuracies to the voters list pose the problem of a voter receiving someone else's information if their address has not been updated by MPAC. With remote internet voting, election staff has no control over technical difficulties that voters could experience on their personal devices such as network errors, incompatibility, and malware/viruses etc. To manage these risks, it is suggested that a combination of internet and traditional ballot, or remote internet voting with voting location optical scan vote tabulators be used.

2. Kiosk Internet Voting

Kiosk internet voting uses technology whereby voters can cast a ballot at a kiosk at convenient locations around the Town such as malls, supermarkets and recreation facilities. Unlike traditional voting locations, the kiosk internet voting would be unsupervised. Therefore, election officials would not be present to answer questions, guide voters through the process, or verify identification. Similar security and privacy threats exist as those present with the remote voting option. However, the kiosk does remove the additional threat of hacking from various mobile devices as the technology would be central at the kiosks at the specified locations. This option does allow for voters to choose where and when to vote based on their availability and preference. Voters would not be constrained to voting at specific voting locations during a limited time frame, and could vote anywhere where a kiosk was present, improving flexibility and accessibility functions. With this option, it would be recommended to place kiosks at "superpolls" or fewer, centralized locations around the Town.

3. Voting Location Internet Voting

This method involves online/electronic voting machines at voting locations to be used in addition to or as a replacement for paper ballots and tabulators. Electronic voting is the term generally used for casting a ballot online through a website at a polling location, whereas internet or i-voting

refers to casting a ballot remotely from home, for example. Electors would be required to attend designated voting locations and cast their ballot at these locations, but would use an internet voting device such as a computer or tablet to cast their ballot. This option eliminates the need of paper ballots and mitigates the risk to the integrity of the voting process but it does not necessarily make voting easier or more accessible for voters, as they are still required to attend a physical voting location.

With voting location internet voting, the voter identification process is similar to the traditional process and in addition, internet voting can reduce the number of mismatched or spoiled ballots by prompting voters when the ballot is marked incorrectly. It can also improve assistive devices for accessibility such as font size and language.

One concern raised regarding this method is the lack of ability to track errors and re-count ballots. In addition, other potential drawbacks and risks include machine failures or power outage, expensive machines, hackable software, electors leaving the voting screens before their ballot has been officially cast. However, voting location electronic voting is the most secure form of internet voting as the host network is more secure than on an individual's personal devices and networks and can be maintained by IT staff. Overall, voting location internet voting is not necessarily more convenient for voters, but it may be an effective method of testing an online approach for the future and provide voters with an option to try online voting in a familiar environment.

Survey Results

The telephone and online survey conducted beginning November and ending December 2016, asked residents about their preferences regarding online voting and ranked ballots. In total, 487 responses were gathered, 347 from direct telephone surveys and 140 from an online survey. When asked if the voter had frequent access to a computer, 87% of total respondents answered yes. When asked if they would be comfortable casting their vote online, 31% answered "strongly agree", 25% answered "agree", 13% answered "neutral" 15% responded "disagree" and 13% responded "strongly disagree". When asked which alternative voting method they would like to see in 2018, 56% answered remote internet voting, 26% responded with online voting at polls, 5% responded with vote by telephone, 5% responded with vote by mail and 26% responded with none of the above. When asked which option they would prefer 32% responded with Option 1- voting at polling location with traditional paper ballots and tabulators, 22 % responded with option 2- remote internet voting and 37% responded with a mix of option 1 and 2 – both paper ballots at the voting location and remote internet voting options.

Considerations

Security and Voter Authentication

Security is the primary concern raised by the public with respect to internet voting options. Research suggests that this is a legitimate concern, as there is no guarantee that casting a vote online will be completely secure. Election officials cannot control the security of the devices that voters may use remotely (computer tablet, phone etc.). Electronic voting at kiosks or voting

locations may be subject to hacking, although host systems pose less risk than voters using their own devices. Although the risk level is minimal, as there have been no cases of cyber-attacks during Municipal Elections to date, there cannot be complete certainty that an online system is fully secure to mitigate the risks. To mitigate risk, vendors should be obtained to test software and security systems from various forms of tampering.

In addition to the threat of security threats, voter authentication and fraud are other concerns associated with implementing an online voting system. Municipalities and vendors will need to develop software that provides a method of voter identification, such as an online registration system that requires an elector to login and enter a pin (PIN mailed out by the municipality), and/or verify personal information from the voters list such as birthday and address. The role of a scrutineer will also need to be adapted as they will not be able to oversee the process or challenge voter eligibility. However, software is available for candidates and scrutineers to track electors who have voted, similar to the information they receive from the voting locations.

Ultimately, as with the use of technology for other areas such as online shopping, banking, military, or even self-driving cars, the potential risk and benefits must be weighed when determining the approach for internet voting. Internet voting options provide improved convince, flexibility, potential cost savings for voters and the municipality. The security risks can be mitigated, but as with all aspects of the internet, they cannot be completely eliminated. Should a security breach occur, the worst case scenario would involve stopping and starting a new election.

Should Council wish to move forward with internet voting, it would be implemented only with the completion of a security audit from a third party.

Availability and Access

Although more voters are likely to have access to internet at home, work, or on their smartphone, not all eligible voters will. For this reason, having internet voting available at voting locations by means of laptops, tablets or kiosks will provide voters with an option to cast their vote electronically. In this scenario, it could be preferable to set up larger polling stations around the Town at Town facilities to ensure proper internet access and a reliable connection.

Accessibility and Customer Service

One of the most recognized benefits to internet voting is improved accessibility and convenience for voters. Voters who have accessibility needs may benefit from an online voting option that would allow them to vote independently from their home. This option removes the physical aspect of attending a voting location and marking a ballot and instead provides a method that gives voters independence and provides a more comfortable, less stressful voting environment. Likewise, internet voting supports voter diversity, as it allows for the voter to adjust settings to make voting more convenient for him or her, such as font size, language etc.

Remote internet voting provides voters with the option of voting online through any internet source (phone, computer, and tablet). Generally, internet voting is convenient, especially when used

during week long advance polls, whereby voters can cast their vote online any time of day. Likewise, it reduces the number of proxies needed for students, military personal, and vacationers etc. who, if eligible, could cast their vote online from anywhere with internet access.

Environment

Inarguably, internet voting is a “greener” voting option, as it eliminates the use of paper ballots and election materials when used as the sole voting method. Remote internet voting eliminates the need for voters to drive to voting locations. Although an entirely online election is not recommended for 2018, providing some form of online voting option for 2018 will pave the way for the potential for a fully online election in the future.

Financial implication

It is estimated that the majority of costs would involve updates to software and the technologies required for implementing an online voting system. In addition, increased costs for communication would be required to ensure that residents are familiar with the voting options and aware of any changes to the voting process. Should Council adopt a hybrid approach with tabulators and internet voting options, the costs would increase to support both voting methods.

Please see Appendix C for a detailed cost analysis of election options.

Conclusion

In conclusion, internet voting can offer many benefits to residents with respect to convenience and accessibility. As many municipalities in Ontario have experienced, the risks of security threats are relatively low. Staff recommends a hybrid approach to test the use and popularity of internet voting options. However, this option should only be implemented after a completed security audit conducted by a third party, and with consideration from the Town of Newmarket’s Information Technology department.

Appendix B Ranked Ballot Elections

Summary

- Bill 181 the Municipal Elections Modernization Act, 2016 amendments to other Act includes the provision for municipalities to adopt a Ranked Ballot Election (RBE)
- In A Ranked Ballot Election (RBE) electors rank candidates in order of preference (first, second, third etc.), votes are distributed based on the rankings marked on the ballots, and candidates must meet a minimum threshold to be elected.
- Should Council choose to move forward with a ranked ballot election for 2018, a by-law must be passed no later than May 1,^t 2017, and must specify: the maximum number of rankings for each office, a different number of rankings for each office, or a default of three rankings if none are specified.
- This report addresses the considerations associated with shifting to RBE for the 2018 Municipal Election, it does not address in detail how a RBE is conducted

Background

Bill 181, the *Municipal Elections Modernization Act, 2016* amended the *Municipal Elections Act, 1996*, allowing municipalities the option of conducting ranked ballot elections for offices on municipal council. The ranked ballot system intends to improve the quality of elections and to better reflect the majority of the electorate. Traditionally, municipalities have conducted “first-past-the-post” elections where the candidate who receives the highest number of votes wins, regardless of the percentage of votes the candidate receives. Ranked Ballot Elections (RBEs) requires a winning candidate to receive 50% of the vote and instead of casting a vote for one candidate, electors rank candidates in order of preference. The results are calculated initially by all ballots’ first choice, and if 50% is not reached, a run-off occurs. Bill 181 outlines the regulations and legislative requirements associated with ranked ballot elections including the requirement for public consultation and ballot counting and reporting.

Bill 181 stipulates that further provincial regulations will be established to develop standards and procedures for administering RBEs including voting procedures, requirements for ballots, how ballots will be interpreted, the process of eliminating of candidates and calculations of the thresholds. RBE reflect a significant change to the traditional electoral system, therefore, there are many factors to consider, should Council chose to pursue a RBE for the 2018 Municipal Election. Shifting to RBEs will have a significant impact on both the administration of municipal elections and the voting experience for voters. The following are some highlights about various components of ranked ballot elections that should be considered.

Consideration and Impacts

Public Education

Undoubtedly, the most significant cost and risk of implementing RBEs would be the public education program and plan. Before passing the by-law in April 2017, Council must ensure that at least one open house and one public meeting is held to give the public an opportunity to review and ask questions about the ranked ballot by-law. In accordance with Bill 181, the by-law must explain how elections would be conducted, estimate cost of conducting the election, a description of the voting equipment and any other alternative voting methods being considered. Should Council choose to move forward with RBE for 2018, staff suggest that multiple public meetings or information sessions (including a mock election with sample ranked ballots) would be necessary to demonstrate the process to residents.

Timeline (as required by the Act)

Date (2017)	
February 2	Issue Notice of Open House (30 days notice required)
March 7/8 th	Open House
April 3	Public Meeting (special CoW)
April 24	Council Meeting – Adoption of By-law

To minimize confusion or frustration about a new, more complex, voting system, the Town would need to invest in a large public education and outreach plan. In addition, a communications plan that incorporates digital media, press releases, website information and FAQs, television and radio ads, and public seminars or information sessions at community events or facilities would be required. Additional promotional material would be required including brochures, door hangers etc. Staff may also recommend personalized letters/mail to every resident briefly explaining the RBE process and directing residents to various resources for more information (staff, website, etc.)

Corporate communications has indicated that in order to support a RBE, an extensive communication plan would need to be developed, and this would likely include a dedicated staff resource to complete the additional workload associated with transitioning to a ranked ballot election.

Consultation

Bill 181 was passed in June, 2016, and as such, many municipalities have opted to hold off on ranked ballot elections until after the 2018 election, and until the province has developed more detailed regulations or guidelines. The City of Guelph, Mississauga, Cambridge, Toronto and Oakville have brought forward reports that recommend that Council adopt other modernization options such as internet voting and vote anywhere, and report back on ranked ballots for 2022. There are limited examples of ranked ballot use to evaluate (none in Canada) and for this reason municipalities are generally opting to wait and see how this option is developed at the provincial or federal level, before implementing it at the municipal level.

Vaughan

In November 2016, a report was brought forward regarding the Municipal Elections Modernization Act, Bill 181. Staff suggested that there would be significant financial and administrative risks associated with pursuing a ranked ballot option for the 2018 Municipal election. Staff recommended pursuing alternative improvements such as new technology for the 2018 election and delaying consideration of ranked ballots. Staff suggested that additional research and extensive public consultation could take place if Council chose to revisit ranked ballot options after the 2018 election. This report was received for information and the recommendations were adopted without amendment at the Council meeting of November 15, 2016.

Markham

On January 16, 2017 a report was brought forward regarding the use of ranked ballots for the 2018 municipal election. Staff identified concerns with implementing ranked ballots for 2018 including: the complexity of Markham's election, voting equipment, availability of election results, timelines and outstanding legislative questions. At the meeting Council elected not to pursue a ranked ballot election, and the report was received for information purposes.

Guelph

Based on a report to Council from September 6, 2016 the City of Guelph has chosen to keep the existing first-past-the-post election model for 2018. In addition the City Clerk was directed to monitor ranked ballot elections in Ontario and report back to Council with a comprehensive report after the 2018 election.

Mississauga

Rather than shifting to RBEs, the City of Mississauga is using the 2018 municipal election as a time to explore alternative, modernizing voting methods such as internet voting and "vote anywhere." Council decided to implement a "vote anywhere" system to create a more convenient and flexible election to residents. The decision was made with the intent to wait for the province to test ranked ballot options, and for the City to re-evaluate this option at a later time.

Oakville

Similarly, a report from June 2016 on ranked ballots indicated that staff will report back to Council about ranked ballot options once they receive more details regarding the regulations and support from the province on this topic.

Toronto

Toronto's report in November 2016 indicated that staff did not feel that there was sufficient time for consultation with the public prior to the May 1st 2017 deadline for adoption of the required by-law. In addition they recommended a very extensive communication plan with significant costs.

Voting Equipment

Currently the Town utilizes optical scan tabulators to record and count ballots. In administering RBEs, staff do not recommend implementing a new vote counting method, but rather maintaining the current use of vote tabulators and paper ballots. Staff will need to consult with the vendor about what updates to the software would be required to facilitate a new voting method or pursue alternative vendors. Although staff has not received detailed quotes for the cost of tabulators equipped with software to record and count ranked ballots, vendors have indicated that the technology will be available for 2018, but there will be an increase in cost. The current contract with Dominion has ended; therefore, a RFP would be required to secure a vendor for the 2018 municipal election. Should 2018 be a RBE, the RFP contract would need to include software and technologies for counting and administering ranked ballots.

Voter Impact

Ballot

With RBEs, the ballots would need to be larger or may use multiple sheets of paper, depending on the number of candidates. This would not only increase the time it takes for voters to fill out the ballot, the ballot will look more complex. A sample ballot is attached as Appendix D.

Convenience

Primarily, concerns have been raised regarding how the public will react to a new electoral system and whether it will discourage voters. Ranked Ballot elections will take more time to administer at the voting locations, could increase wait times, and could result in more errors or spoiled ballots due to the additional requirements for marking ballots.

Voter Turnout

It is unclear whether or not shifting to a RBE will have a positive, negative or neutral effect on voter turnout, but the added complexities and change from the norm may be confusing to residents who have voted previously. As such, the focus for Council and staff should be to ensure

that every resident is aware of the change and fully understands the ranked ballot process to the best of their ability. Hopefully, proper communication and community outreach education plan will mitigate the risk of reducing voter turnout.

Accessibility

Implementing RBE may have an impact on accessibility for voters. Currently, accessibility devices such as sip and puff, paddles and other devices increase the voting time to approximately 5 minutes. With RBE, selecting multiple candidates based on preference would significantly increase the time it takes for a voter to cast their ballot using an accessible device, with more room for error or spoiled ballots. Staff would need to consult with vendors about any changes to accessible devices with the ranked ballot software and the estimated time it would take to cast a ballot.

Administrative and Procedural Impact

Election Results and Recount

Ranked ballot elections are more complex to administer in many capacities including counting ballots, recording counts, determining ambiguous ballot markings, etc. and as such, the wait time for results or re-counts would be longer than the current method. As soon as possible, the Clerk is responsible for making the following information available:

- The number of ballots cast
- The number of ballots that were declined
- The number of ballots in which the votes for office were rejected
- The threshold calculated for each office
- The number of votes cast for each candidate in the first round of vote counting
- The results of each round of vote counting, including the number of votes received by each remaining candidate and the number of exhausted ballots

Due to the additional requirements and complexities, it may take longer to calculate and report election results at the end of the election period.

In addition, logistics and accuracy testing would be significantly more complicated and time consuming for staff to administer as the tabulators would have to be programmed to accommodate any run-off situation and compile data based on multiple responses for each office, in order of preference.

Resources

Additional staff would be required to ensure that the administration of a RBE ran smoothly at voting locations to provide customer service to voters in addition to regular poll clerk and election staff duties. Likewise, extensive training would be required for election officials and Legislative

Services staff in order to address residents questions and ensure that proper procedure is followed at voting locations.

Financial Impact

Implementing a RBE will be more costly than the current first-past-the-post method. Tabulator costs will be increased due to the programming changes required for the tabulators and the changes to the vote count method. The vendor will need to update the firmware loaded onto the vote tabulator machines as well as provide new software for counting the votes based specifically on the requirements of the *Municipal Elections Act, 1996* as amended. There will also be increased costs for the ballots themselves. Ranked Ballots will take up more space and as such, ballots may be more than one page. Additional staff will be required to train election officials and provide additional customer service support prior to elections and at the polling locations.

In addition to an extensive education program for electors, new training would need to be developed to correctly train election officials. Municipal elections require hiring outside staff to work at polling locations and these staff would need to be trained extensively. Likewise, additional staff would be required at each location to serve a customer service role and answer questions for residents who are unsure about the process.

For a complete cost analysis of voting methods for the 2018 election, please refer to the chart in Appendix C.

Conclusion

In conclusion, staff does not recommend implementing an RBE for 2018. Instead, staff suggests reporting back on the option for 2022, as this would provide for a more extensive public education program, and reflect a period of evaluation as other levels of government may continue to develop regulations surrounding RBEs, and as other municipalities may choose to implement RBEs. Staff feels that attempting to implement this change for 2018 would not provide sufficient time for staff training, public education, cost analysis and financial implications, risk management strategies and for staff to develop procedure and process for administering a ranked ballot election.

Appendix C
Estimated Budget Costs for Internet Voting and Ranked Ballot Elections

Estimated Cost for 2018 – First Past the Post

Option 1 Hybrid Tabulator and Internet Election

	Estimated Cost	Comments / Explanation
Tabulator Equipment and ballots	\$160,000	Some increases expected over 2014 costs.
Internet voting platform	\$160,000	Costs expected to be similar to costs for tabulators.
Security audit	\$12,000	
Voterview (election management)	\$12,000	Same as 2014
Communications	\$25,000	Slightly higher costs than in 2014 due to introduction of internet voting option.
Voter notification and postage	\$9,000	Same as 2014
Staff support	\$54,000	Same as 2014
Stationary supplies and miscellaneous	\$20,000	Same as 2014
Aps and website	\$12,000	Same as 2014
Total	\$464,000.00	

Option 2 Status Quo plus enhancements

	Estimated Cost	Comments / Explanation
Tabulator Equipment and ballots	\$160,000	Some increases expected over 2014 increases.
Voterview (election management)	\$13,000	Similar to 2014
Communications	\$25,000	Slightly higher costs expected from 2014 due to enhancements
Voter notification and postage	\$10,000	Similar to 2014
Staff support	\$55,000	Costs are likely to be slightly less due to process enhancements
Stationary supplies and miscellaneous	\$30,000	Slightly higher costs expected from 2014 due to enhancements
Aps and website	\$12,000	Similar to 2014
Total	\$305,000.00	Overall costs expected to be the similar to 2014.

Estimated Cost for 2018- Ranked Ballot Election using Vote Tabulators

Tabulator voting based on 2014 costs		
Tabulator Equipment and ballots	UNKNOWN Estimated at (\$250,000)	Costs of tabulating equipment is unknown Will require more paper for ballots, and equipment costs may be significantly higher as the systems will require new programming.
Voterview (election management)	\$12,000.00	Same as 2014
Communications	\$75,000.00	Extensive public education campaign required to inform voters of changes to the system -Mock voting presentations and information , radio and tv ads, sessions, promotional brochures/banners - May need to hire a Communications Assistant for election purposes, or part-time communications staff
Voter notification and postage	\$9,000.00	
Staff support	\$80,000.00	Will need more staff to conduct public outreach and to provide extra support/customer services on election days
Stationary supplies and miscellaneous	\$30,000.00	Additional costs are expected for communication materials, and supplies.
Aps and website	\$12,000	
Total	\$468,000.00	

Appendix D - Ranked Ballot Example for Optical Scan Vote Tabulator

 Newmarket To vote, fill in the square	Town of Newmarket Municipal Election 2018	Ward 1 English-Language Public School	Ballot ID	DRO
			101	

next to your choice(s), like:
 or Use only the marking pen provided.

Special Instructions for Ranked Ballot Voting

1. Pick your first choice and completely fill in the oval next to that candidate under 1st choice.
2. If you have a second choice candidate, completely fill in the oval next to that candidate under 2nd choice.
3. Your third choice candidate, if you have one, works the same way.

MAYOR

Mark your first, second and third choice candidates in the column below. One to be elected.

1ST CHOICE	2ND CHOICE	3RD CHOICE
<input type="radio"/> Robert BORDEN	<input type="radio"/> Robert BORDEN	<input type="radio"/> Robert BORDEN
<input type="radio"/> John DIEFENBAKER	<input type="radio"/> John DIEFENBAKER	<input type="radio"/> John DIEFENBAKER
<input type="radio"/> Wilfrid LAURIER	<input type="radio"/> Wilfrid LAURIER	<input type="radio"/> Wilfrid LAURIER
<input type="radio"/> Alexander MACKENZIE	<input type="radio"/> Alexander MACKENZIE	<input type="radio"/> Alexander MACKENZIE

REGIONAL COUNCILLOR

Mark your first, second and third choice candidates in the column below. One to be elected.

1ST CHOICE	2ND CHOICE	3RD CHOICE
<input type="radio"/> John A. MACDONALD	<input type="radio"/> John A. MACDONALD	<input type="radio"/> John A. MACDONALD
<input type="radio"/> Lester B. PEARSON	<input type="radio"/> Lester B. PEARSON	<input type="radio"/> Lester B. PEARSON
<input type="radio"/> Charles TUPPER	<input type="radio"/> Charles TUPPER	<input type="radio"/> Charles TUPPER

Appendix E

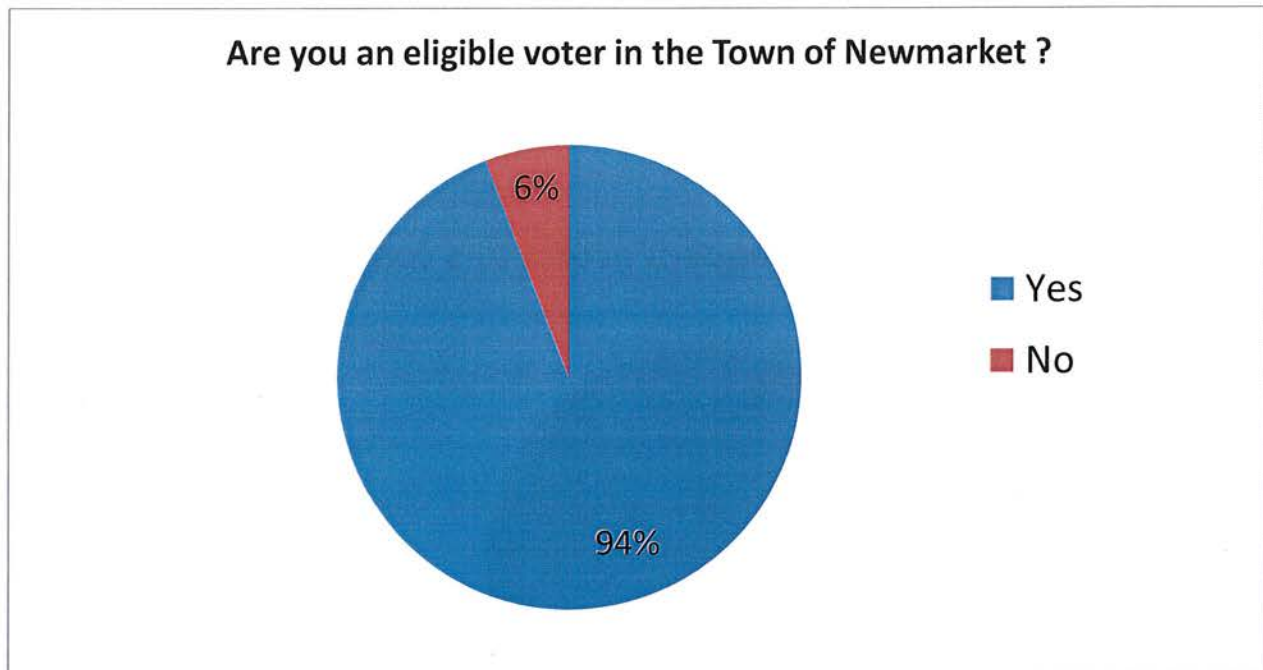
Summary of Survey Response by Question

To gauge public interest and knowledge about internet voting and ranked ballots, staff conducted online and telephone surveys during the month of December, 2016. In total, the online survey that was available on the Town website, hosted by Survey Monkey, gathered 140 responses. A direct telephone survey, conducted by Bill Gossling, gathered 347 responses for a total of 487 responses from residents.

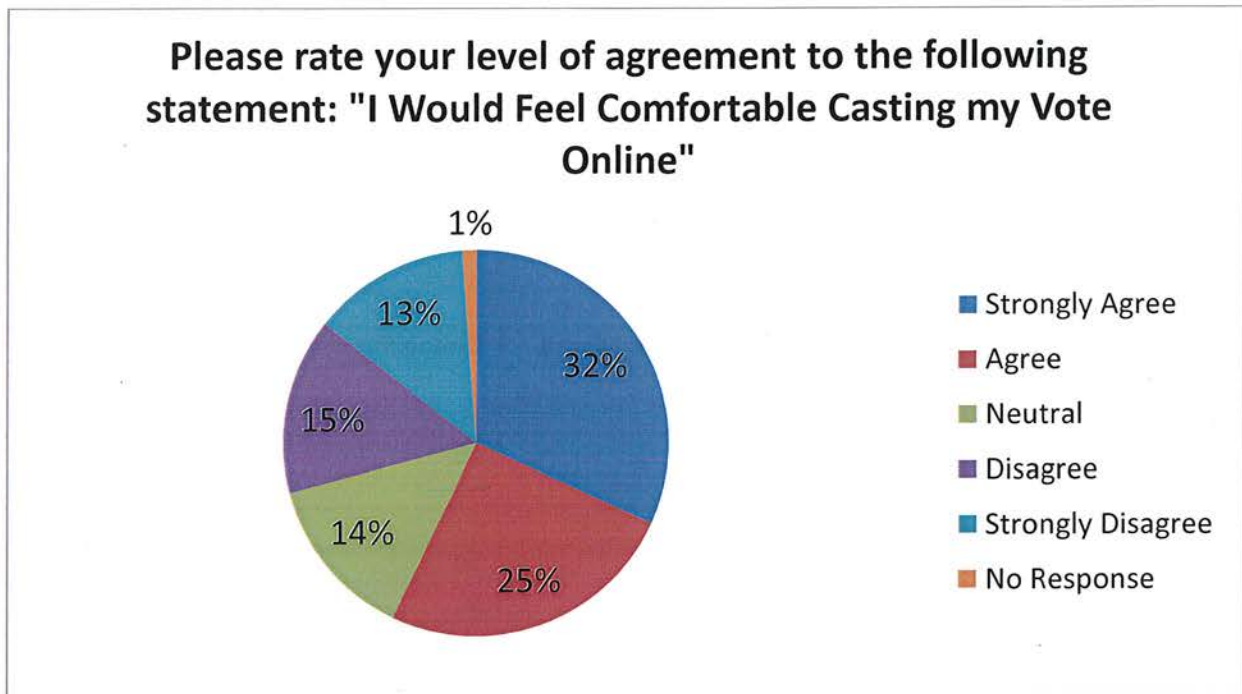
Totals

Telephone	347
Survey Monkey	140
Total Responses	487

Question 1: Are you an eligible voter in the town of Newmarket?	Telephone Survey	Online Survey	Totals
Yes	338	129	467
No	8	11	29



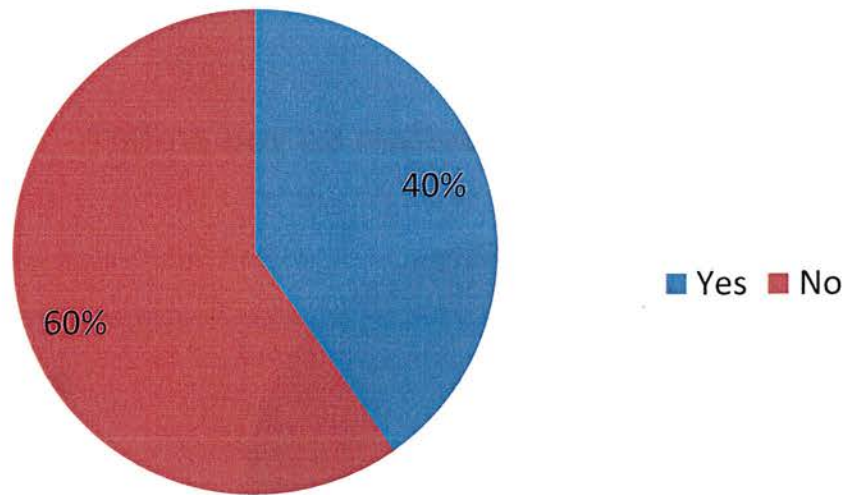
Question 4: Please rate your level of agreement to the following statement: I would feel confident casting my vote in the 2018 Municipal Election online?	Telephone Survey	Online Survey	Totals
Strongly Agree	89	66	155
Agree	99	24	123
Neutral	58	9	67
Disagree	57	15	72
Strongly Disagree	43	21	64
No Response	1	5	6



Question 5: Which alternative voting method would you most like to see in 2018?	Telephone Survey	Online survey	Totals
Remote Internet Voting	135	82	217
Online Voting at Polls	90	38	128
Vote by telephone	12	13	25
Vote by Mail	13	20	33
None of the above	97	30	127

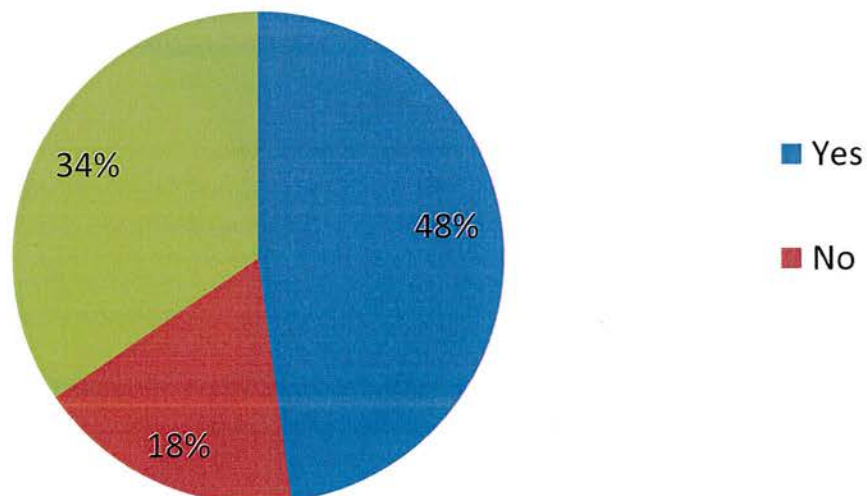
Question 7: Do you know what a ranked ballot is?	Telephone Survey	Online Survey	Totals
Yes	87	102	198
No	260	33	293
Skipped Question	62	5	

Do you know what a ranked ballot is?

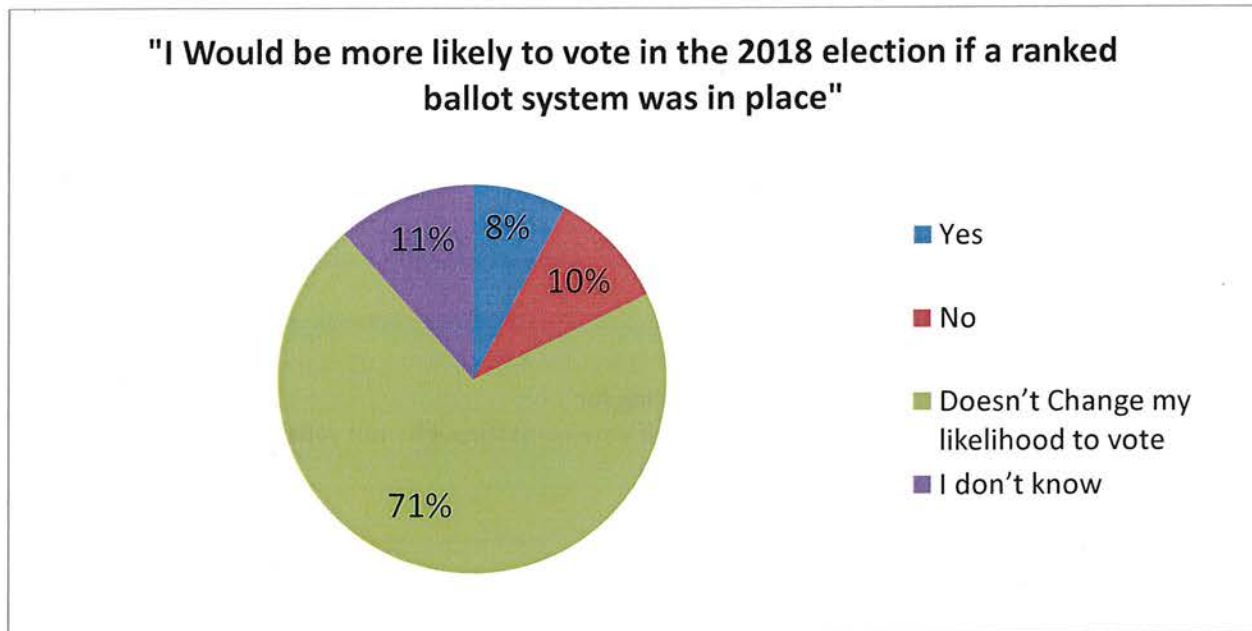


Question 8: Would you like more information on Ranked Ballots?	Telephone Survey	Online Survey	Totals
Yes	195	24	219
No	63	18	81
Skipped the Question	89	69	158

Would you like more information on Ranked Ballots?



Question 10: I would be more likely to vote in the 2018 Municipal Election if a ranked ballot system was in place?	Telephone Survey	Online Survey	Totals
Yes	18	13	31
No	24	16	40
Doesn't Change my likelihood to vote	198	84	282
I don't know	44	2	46



Question 11: Can you provide some comments or feedback on internet voting and ranked ballots.

Comments (telephone survey):

1. doesn't believe in online voting
too much room for misuse
2. Doesn't agree with online
3. easier and more convenient
4. participant would also like to add voting online from home on a home computer to the alternate voting option question.
5. likes convenience of online voting
might take too long with ranked ballots
6. curious about why it is coming up know
7. concerns about the costs
8. its about time
9. would like to learn more about ranked ballots
like to learn more about how they would secure online voting
10. doesn't trust online

46. online/remote voting would be great.""
47. concerned about security
should be mandatory voting
48. Likes idea of online voting. People who can't get out can vote online.""
49. does NOT like online voting/polling
50. ITS DEFINETLY A VALID OPTION
51. doesn't trust computers
52. this constituent would like to see a more fair system proportional representation for voters.
53. constituent would like to see all the details before and thinks a more proportionate system of voting is a good option.
54. doesn't like online voting
55. wants to be sure that everyone only votes once
online would be nice and easier for a lot of people

56. online voting is probably a good idea
might lead to a higher voter turnout
doesn't like the ranked ballot system

57. for online voting
wondering about security
58. THE TOWN NEEDS TO EXPIDITE BOTH
59. worried about security issues
not sure its safe and accurate enough
60. online would be useful for people who cant get out
61. concerned about security
62. not sure if they can start a whole new system just off a survey
highly doubt they can change in time
63. Its a good step forward
64. not many people have experience with online voting - could cause issues and possible errors
65. would vote no matter what
66. just not for her
67. should be given more time about the ranked ballot system
68. doesn't like them
69. ONLINE VOTING SHOULD NOT BE MANDATORY
70. likes the polling stations being close
71. online voting is convenient
72. doesn't think we are ready for that yet
thinks mail in is safer
73. doesn't care for online voting and doesn't think it is secure
74. doesn't do much online like banking
75. doesn't think its safe
76. better the way it was
77. ONLINE VOTING COULD BE MANIPULATED
78. from home is a great option for people with less mobility
79. wants to be sure everything is secured

Comments (online survey):

1. dont need to change the system.
2. Online voting will never be secure enough to be reliable. Ranked ballots are biased.
3. IF voting process changes I will not vote and I have voted religiously since I was eligible many years ago. With the lack of security in the online world I have no confidence that my vote remains secret or is credited where I wish.
4. What will you do to get more than 30% of voters to vote. Online voting & ranked ballots will not increase this average.
5. I do not trust any online voting activity. At this time there is simply not enough ability to avoid tampering.
6. When there is no paper trail fraud can happen much easier. This should never be allowed!!!!!!! Voting is only once every 4 years - people who care will make the effort to get out and vote!
7. I feel it would increase voter turnout both young and old
8. Thank you for considering Ranked Balloting for municipal elections
9. Just love the online idea. Probably get more voters using the method.
10. I'm not sure that cyber-security is currently at a level where I would feel confident in having online voting. I believe Ranked Ballots create a less democratic result.
11. Would like there to be a strong form of identification if voting is to be done online.
12. Ranked ballots make the most sense when most wards have multiple candidates. Its more democratic than FPTP.
13. I'm not confident about the on line voting for the reason that it's not the government it's the people voting. How can we ensure that the people are legitimately voting? Do they need to have a thumb print or eye scan or what and then it's not really confirmed that the voting will be done legitimately
14. also lower the voting age
15. Before moving back here I was in a municipality that had internet voting the last 2 elections. It worked extremely well and increased participation by younger voters.
16. Two concerns about remote online voting:
 1. Cyber security
 2. Identity verification
17. I strongly urge the town to make online voting available as this would undoubtedly increase participation among young voters and seniors as well.
18. please consider the elderly population of Newmarket that do not have access to computer or do not own one or don't know how to use one. Infact, some may not even know how to operate an smart phones either.
19. Thank you for not forgetting seniors. I do not use computers. My son helped me fill out this survey. Everyone should vote.
20. Prefer first past the post
21. None
22. Ranked voting was the norm in smaller communities in the past. Ranked voting can be manipulated via a process called "plumping". FPTP voting favours individuals who reside in the ward they seek to represent. Consequently, I favour FPTP.
23. I feel I still need to learn more about how a ranked ballot system works before I can express an informed opinion.
24. I am not a resident but found this survey and thought I would express my opinion. The only complaint is for most residents of Newmarket may have no knowledge of what a ranked ballot is.
25. I think a ranked ballot is more democratic than FPTP. Also, I think online voting would increase turnout.
26. I have always taken the time to make an informed choice at the ballot box. I believe people should be given additional options to participate via on-line if they choose to do so as long as it is secure.
27. Must be secure. Must be via a Web page and not a downloaded app. People will not want to download an app. Suggest an email confirmation of your vote.

increase turnout or save money. If you do your research and look at actual statistics from municipalities where online voting has been used, you will see online voting does not increase turnout by any significant amount and can easily double or triple your election costs.

Online voting is risky technology and should not be used, but don't only take my word for it.

"Internet voting may well remain a good idea for private elections, for EBAs, and for popular events but it will never have the qualities needed for high stakes public elections even party elections with outcomes affecting the general public."

- Craig Burton, founder of online voting maker, Everyone Counts, in a letter regarding the Australian iVote internet voting system

(src: <http://www.aph.gov.au/DocumentStore.ashx?id=cef80a64-c984-4628-9de7-41640c25a978&subId=459751>)

"Other presumed benefits, such as increased turnout and lower cost are not typically realized."

"Do not implement universal Internet voting for either local government or provincial government elections at this time."

"The risks of implementing Internet voting in British Columbia outweigh the benefits at this time."

- Independent Panel on Internet Voting Recommendations Report to the Legislative Assembly of British Columbia

(src: <http://www.internetvotingpanel.ca/docs/recommendations-report.pdf>)

"Our estimates suggest that internet voting is unlikely to solve the low turnout crisis"

Nicole Goodman & Leah C. Stokes, Reducing the Cost of Voting: An Empirical Evaluation of Internet Voting's Effect on Local Elections

(src: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2849167)

Please do not use online voting in any future elections!

47. Online votings time has come and ranked ballots are the future. Get on with both!!!
48. Look at City of Toronto report pages 13-17 recommending against online voting.
<http://www.toronto.ca/legdocs/mmis/2016/ex/bgrd/backgroundfile-98545.pdf>
49. The current system has worked just fine. If you cannot bring yourself to get off the couch, and participate, you get what you should expect. In a "participatory democracy" You have a duty to participate. Re inventing the wheel, has proven to be a BAD mistake in almost all cases in Ontario in particular. I would also suggest, in the interest of the public/taxpayer, we should go back to a two year cycle, largely to get the current "pond scum", OUT of office, in a more timely, representation of democracy. As is, BIG BROTHER, is on the doorstep. Changing the voting system, will let him in.

Internet Voting/Ranked Ballot Survey

1. *Are you an eligible voter in the Town of Newmarket?*
 - Yes
 - No
2. *Did you vote in the Town of Newmarket's 2014 Municipal Election?*
 - Yes
 - No
3. *Do you have frequent access to a computer?*
 - Yes
 - No
4. *Please rate your level of agreement to the following statement: I would feel confident casting my vote in the 2018 Municipal Election online?*
 - Strongly Agree
 - Agree
 - Neutral
 - Disagree
 - Strongly Disagree
5. *Which alternative voting option would you most like to see available in 2018?*
 - remote online voting (home, office, smartphone)
 - online voting at polling stations (kiosks, tablets, computers)
 - telephone voting
 - vote by mail
 - none of the above
6. *Which, if any, of the 3 options would you prefer for the 2018 Municipal Election?*
 - Option 1: The traditional method of marking paper ballots using a pen in voting places throughout the Town. Marked ballots are counted using an optical scan vote tabulator.

10. *Please provide any comments you have about online voting and ranked ballots.*

Thank you for completing this survey. For more information on ranked ballots and internet voting please go to www.newmarket.ca/municipalelection