To:	Corporate and Finance Services Committee
From:	Mary Medeiros, Director, Legislative Services/City Clerk, Office of the C.A.O.
Report Number:	CF-24-68
Date of Report:	November 27, 2024
Date of Meeting:	December 2, 2024
Subject:	Method of Election for the 2026 Municipal and School Board Elections
Ward:	All Wards
File:	03-05

1.0 Purpose

At its meeting of October 20, 2020, the Corporate Services Committee directed the following with respect to Report CORP-20-20 concerning the 2022 Municipal and School Board Elections:

> "Therefore be it resolved:
>
> That Option 2 concerning Internet and Telephone voting as outlined in Report CORP-20-20 be referred back to staff:
>
> a. To further investigate risk mitigation strategies associated with Internet and Telephone voting with consideration being given to a comprehensive security analysis including end-to-end verifiability, security audits and appropriate authentication measures; and,
>
> b. To develop a public consultation strategy on internet voting; and,
>
> c. To report back to the Corporate Services Committee on the above matters in the fourth quarter 2024."

The purpose of this Report is to respond to the direction of the Committee to provide an overview of internet voting use and methodologies including security and risk management strategies, the results of a public engagement exercise conducted to determine interest in utilizing internet voting as a method of election and to recommend the use of internet voting for the 2026 Municipal and School Board Elections.

Attachment 1 is a copy of the response from the Provincial Government regarding the City's request for legal, technical and operational security standards and guidelines for internet voting in municipal elections.

2.0   Recommendation

That the Corporate and Finance Services Committee recommend to City Council:

That based on Report CF-24-68 dated November 27, 2024 concerning the method of election for the 2026 Municipal and School Board Elections:

1.   That City Council endorse internet voting for Advance Polls and internet voting and paper ballots with vote tabulators on Voting Day as the methods of voting for the 2026 Municipal and School Board Elections; and,

2.   That staff be directed to issue a Request for Proposal for an internet voting system vendor capable of conducting internet voting in conjunction with paper ballots and vote tabulators, with the execution of any agreement being contingent upon a successful penetration test and security analysis to the satisfaction of the Director, Legislative Services/City Clerk and Chief Information Officer; and,

3.   That staff report back to City Council regarding the penetration test and security analysis in order to pass the appropriate by-law concerning the method(s) of voting and any use of vote counting equipment as set out in Section 42(1) of the Municipal Elections Act, 1996, S.O. 1996, c. 32, Sched.

3.0   Input From Other Sources

- Corporate Leadership Team

- Corporate Communications

- Information Technology Services

- Benchmarking statistics from the Association of Municipalities of Ontario ("A.M.O.") and the Association of Municipal Managers, Clerks and Treasurers of Ontario ("A.M.C.T.O.")

- Other Municipalities including Ajax, Belleville, Clarington, Markham, Pickering, and Vaughan

- Environics Research Survey and Public Feedback Forms

4.0   Analysis

In accordance with The Municipal Elections Act, 1996, S.O. 1996, c. 32, Sched. ("the Act") the Clerk is responsible for conducting elections, including providing for any matter or procedure that is not provided for in an Act or regulation, and that in the Clerk's opinion, is necessary or desirable for conducting the election. The Act also provides that the Council of a local municipality may pass by-laws to:

a)   authorize the use of voting and vote-counting equipment such as voting machines, voting recorders or optical scan vote tabulators ("vote tabulators"); and,

b)   authorize electors to use an alternative voting method, such as voting by mail or by telephone, that does not require electors to attend a voting place in order to vote.

For every election since 1997, Council has passed a By-law authorizing the use of vote tabulators as a method of counting paper ballots. In 2020, through Report CORP-20-20, staff recommended the use of Internet Voting for the 2022 Municipal and School Board Elections. The Corporate Services Committee referred Internet and Telephone voting back to staff and at its meeting of October 26, 2020, Council passed a By-law authorizing the use of vote tabulators for the 2022 Municipal and School Board Elections.

In 2021, as a result of the COVID-19 Pandemic, staff recommended adding Vote-by-Mail on Request as an option for voters who did not wish to attend in a voting place in person to cast their vote and at its meeting of December 13, 2021, Council passed a By-law to add Vote-by-Mail on Request for the 2022 Municipal and School Board Elections. Only 161 voters submitted a Vote-by-Mail ballot.

It is important to recognize that internet or online voting is only one component of electronic voting. Electronic voting is a general term that may or may not include use of the internet, and generally expands to mean any aspect of the election process that is digital in nature. The City has already been successfully using various components of electronic voting technology during previous elections including:

- Electronic or "live" voters' lists where voters are struck off a digital voters' list. This technology, which has been utilized by the City for Advance Voting Opportunities since at least 2003, was most recently used to facilitate the Vote Anywhere in Your Ward system available to voters in the 2022 Municipal and School Board Elections;

- Online voter registration, such as the Voter LookUp tool, in use since 2014, allowing voters to check their status on the voters' list and submit amendments, and the online registration system for Vote-by-Mail on Request as used in 2022;

- Vote tabulators which, as noted, have been used in Oshawa through a number of elections.

The Committee's recommendation in 2020 included direction to staff to further investigate risk mitigation strategies associated with internet and telephone voting with consideration being given to a comprehensive security analysis including end-to-end verifiability, security audits and appropriate authentication measures; and, to develop a public consultation strategy on internet voting.

Regardless of the method of election or voting or vote counting equipment utilized, it is necessary to conduct the election in a manner that reflects the overarching principles of the Act. These principles are recognized as:

- The secrecy and confidentiality of the voting process is paramount;

- The election shall be fair and non-biased;

- The election shall be accessible to voters;

- The integrity of the voting process shall be maintained throughout the election;

- There is to be certainty that the results of the election accurately reflect the votes cast;

- Voters and candidates shall be treated fairly and consistently; and,

- The proper majority vote governs by ensuring that valid votes are counted and invalid votes are rejected, so far as reasonably possible.

4.1   Use of Internet Voting in Canada

Internet voting was first used in Canadian municipal elections in 2003 and has since been steadily adopted, a trend which has accelerated through each election cycle. Canada could be considered a leader in the adoption of internet voting, given its use in Indigenous communities, provinces and territories, specifically Ontario, with one of the longest standing internet voting histories in the world.

In 2022, 231 out of 414 municipalities adopted internet voting, with more municipalities anticipated to use internet voting in 2026. A number of reasons are cited by municipalities for introducing internet voting, including increasing convenience and accessibility for voters, finding administrative efficiencies, and potentially increasing turnout. Internet voting also provides an opportunity to address inclusion challenges faced by groups such as non-resident voters, voters with disabilities, and voters who may be unable to leave their homes.

4.1.1 Voting Methods Across the Province

The following graph was created with data published by A.M.O., demonstrating the use of various voting methods across the province during the 2022 Municipal and School Board Elections. Of the 382 municipalities responding, over 56% utilized internet voting, either exclusively or combined with another method of election (telephone or paper ballots).

2022 Election Voting Methods (AMO)
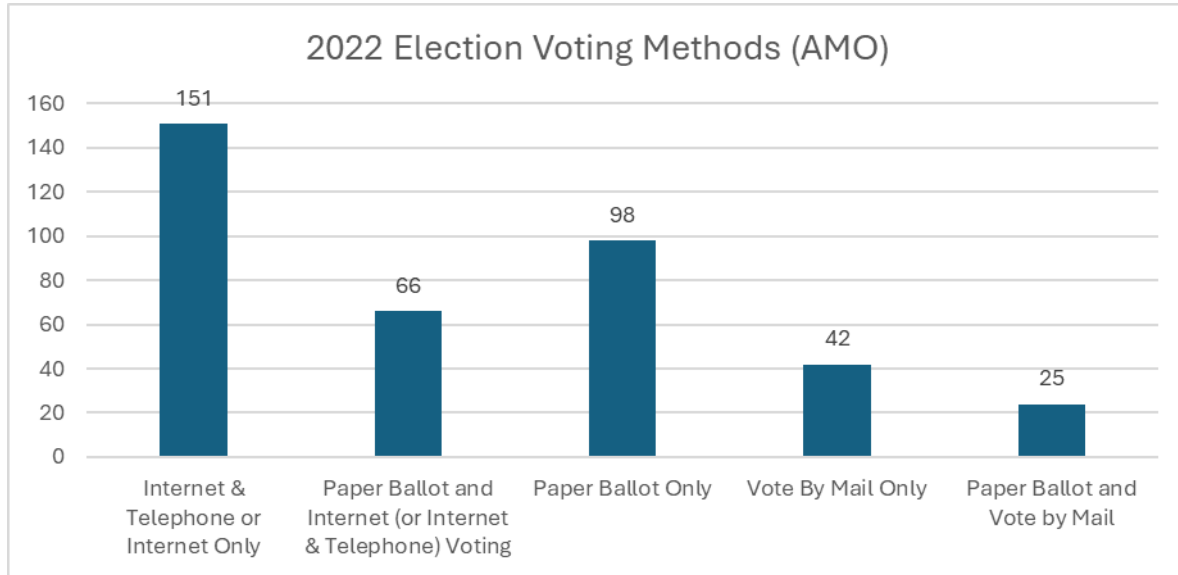
4.2 How Internet Voting Works

During an election where internet voting is available, a Voter Information Package ("V.I.P.") is mailed to all voters on the voters' list which includes a Personal Identification Number ("P.I.N.") and instructions to access the voting website to cast their vote. The V.I.P. is similar to the current voter information cards used by the City but in addition to general voting instructions it includes the voter's P.I.N. and instructions for internet voting.

Voters can vote from anywhere including their home, work, a public library, etc. and at any time of day during the designated voting period using a computer or personal device. Using the link provided in their V.I.P., voters visit the voting page on their preferred device and enter unique credentials using two-factor authentication ("2-F.A.") to securely access their ballot.

2-F.A. is an additional layer of security that requires users to input two out of three types of credentials correctly. These types are:

- Something you **know**, such as a date or answer to a question;

- Something you **have**, such as a P.I.N. or password;

- Something you **are**, such as a biometric identifier, i.e. fingerprint recognition, facial recognition, voice recognition.

Having properly entered their 2-F.A. credentials, voters are able to mark their ballots. A final review is required for voters to confirm their ballot is correct as marked before proceeding to final submission. Once the final submission is entered, a confirmation page then loads to inform the voter their vote has been cast successfully.

Each ballot that is submitted is encrypted and identifying information is removed for additional security. Encryption is the process in which information is converted into cipher or code to prevent unauthorized access. Only authorized parties can decipher the code. The combination of the encryption and removal of identifying information ensures the confidentiality and secrecy of all ballots cast. Under no circumstances would a voter's

ballot be associated to them and vice versa, a ballot cannot be traced back to a specific voter.

At the ballot processing stage, all authentication information has been stripped. When submitted, each ballot is decrypted, the votes counted and integrated into the overall totals. Votes are archived for recounts and audits and no authentication information is stored.

If a voter does not have access to the internet using their own device or a public use device, such as a computer in a public library, or prefers not to use a personal or public connection, one or more Voter Assistance Centres (V.A.C.) may be established to allow a voter to attend a location in person. At a V.A.C., instead of receiving a paper ballot, voters would use a tablet or laptop provided by the municipality to cast their ballot, with or without assistance as requested by the voter. This would require the same authentication credentials for security purposes but does not necessitate the voter having their own device or internet connection.

4.2.1   Technological Profile of Voters

Studies have shown that voters in municipalities that have adopted internet voting report an overall satisfaction with the voting experience and a desire to continue voting online. This is supported by the 2022 post elections survey conducted by A.M.C.T.O. in which 93% of municipalities who utilized internet voting were 'very satisfied' with internet voting. The same survey noted that satisfaction with internet voting increased between 2018 and 2022 with 15% more municipalities that used internet reporting that they were very satisfied with the method in 2022.

This trend appears to continue with demand for internet voting increasing in light of the COVID-19 pandemic. Canadians of all ages have demonstrated a year over year trend of living an increasingly more online lifestyle. The Canadian Internet Use Survey demonstrated that during the most recent election year of 2022, internet use among Canadians aged 15 years and older reached 95%, up from 92% in 2020. Statistics Canada indicates that Canadians aged 75 years and older saw the largest increase from 62% in 2020 to 72% in 2022.

As the use of digital technologies grows, Canadians are becoming more acquainted with newer technologies and incorporating them into their daily routines with solutions like online banking, which according to Statistics Canada, 78% of Canadians use. Internet voting delivers a convenient solution that integrates well into this lifestyle especially when voters have the choice to access their vote through multiple devices such as smart phones, tablets, and home computers.

As of 2024, 95% of Oshawa residents accessed the internet with a mobile device in the last seven days, and over 90% of Oshawa residents used the internet for their online banking in the past month. In terms of electronic access across the city's population, 88% own a computer, 87% own a smartphone, and 67% own a tablet.

4.3   Benefits and Risks to Internet Voting

Internet voting can offer a convenient and secure method of voting and allows electors to cast their ballot online anywhere with internet access using a number of devices including computers, laptops, tablets, smartphones, etc. Overall, internet voting can provide a multitude of benefits including:

- Increased convenience for voters;

- Potential for increased participation and turnout;

- More attuned to the needs of an increasingly mobile society;

- Prevention of fraud in polling stations and during the transmission and tabulation of results by reducing human intervention;

- Increased accessibility, for housebound voters and non-resident voters;

- Possibility of multilingual user interfaces that can serve a multilingual electorate better than paper ballots;

- Reduction of rejected ballots as the voting system prevents any inadvertent or incorrect markings and voting systems can warn voters about any blank votes (although voters are able to cast a blank vote should they so choose); and,

- Potential cost savings through savings in poll worker time, paper ballots and use of vote counting equipment, if used as a single method of election.

Internet voting can also alleviate long line ups at voting locations as fewer voters attend in person and eliminates the need for proxy voting.

Along with these benefits, internet voting does carry potential for risks. Specifically:

- Access for Voters who may not have their own Internet;

- Costs to administer when used as a secondary method of election; and,

- Technical Security and Voter Authentication.

The following sections will review these risks and provide strategies that will be employed to mitigate them should Council adopt the recommendation contained in this Report.

4.3.1 Access for Voters

Lack of access to the internet is often noted as a concern for the adoption of internet voting; however, most of the population do have some sort of device, such as a mobile phone, that can connect to the internet using data. For those without this capability, free public Wi-Fi is available in malls, grocery stores, public libraries and at City facilities where a user could bring their own device and connect to the internet to cast their vote.

Staff recognize that not everyone has a device, and for those who do, not everyone wishes to connect it to public Wi-Fi to complete their ballot. To ensure equal access for all eligible voters, a number of Voter Assistance Centres (V.A.C.s) would also be established

throughout the city which would provide any voter access to use the online system to receive their electronic ballot. Such V.A.C.s would allow a voter to visit a voting location and use City-provided devices to complete and submit their electronic ballot.

A similar system would be used for the City's Special Voting Places. These are voting places identified by Section 45(7) of the Act; specifically, institutions where 20 or more beds are occupied by persons who are disabled, chronically ill or infirm or retirement homes where 50 or more beds are occupied, such as the hospital or long-term care facilities. Staff would attend Special Voting Places with City-provided devices to permit eligible voters to cast their ballot as well.

When initially proposed in 2020, staff recommended the use of both internet and telephone voting as an option to ensure all residents could access the system; however, further research has suggested that telephone voting is not preferred by voters as it takes a significant amount of time for the system to read each race on the ballot aloud, allow the voter to make their choice for each race and then confirm their selections for each race, not including any review or corrections made by the voter before the ballot is finally cast. This process can take upwards of one hour to complete and cast a single ballot.

In order to further improve access for voters it is recommended that on Voting Day, paper ballots with vote tabulators be available at V.A.C.s throughout the city where eligible voters will be given the choice to use the paper ballot or the internet system to cast their vote using a City device.

4.3.2 Oversight by Candidates and/or Appointed Scrutineers

In an election using paper ballots with vote tabulators, Candidates or their appointed Scrutineers can attend a Voting Place prior to opening to witness the opening of the Tabulator, as well as remain in a Voting Place after closing to witness the closing and sealing of the tabulator and ballot box. Throughout Advance Voting Opportunities or on Voting Day, Candidates or their appointed Scrutineers were also permitted to be in a Voting Place during the regular hours of operation to observe the processes.

In an election using internet voting, Candidates/Scrutineers would be able to attend a specified location on the day voting activities are scheduled to begin prior to the activation of the voting system to view the list of Certified Candidates names and confirmation of a zero totals report. Once the voting system has been activated, Candidates/Scrutineers would be able to be present during operating hours at Voter Assistance Centres to observe the processes and could attend a designated location when the Clerk provides the unofficial results following the close of voting on Voting Day.

4.3.3 Costs

When internet voting is deployed as the only method of election for a municipality, cost savings may be realized with respect to the printing, storage and destruction of paper ballots as well as the system necessitating fewer voting locations resulting in lower staffing costs. When it is used as a supplementary method of election costs increase significantly. For example, when used in concert with paper ballots with vote tabulators, the municipality must provide enough resources for all eligible electors to use both methods.

4.3.4 Technical Security and Voter Authentication

Perhaps the largest apprehension related to the adoption of internet voting is the technical security of the system, ensuring only those authorized to vote are able cast a ballot and the election is protected from outside interference. As municipalities adopt new voting technologies including online voter services, internet voting, and digitization of the voters' list, a corresponding array of cybersecurity tools have emerged to address the potential for disruptive cyber-attacks. It is critical that the City address any physical and cybersecurity threats to the elections system.

The decentralized nature of municipal elections makes it hard for one cyber operation to compromise multiple municipalities. Attackers may attempt to directly alter the election results, impair public trust in City operations, or infiltrate systems to undermine the legitimacy of City administration and Council; however, these risks are inherent to any election utilizing technology.

The more likely line of attack for local elections are misinformation operations such as posting false claims on social media to make the public believe that the election was manipulated or other such statements to discredit the process or individuals involved. Accordingly, security and the public perception of that security must be addressed before implementing internet voting.

Officials must build trust and understanding with vendors through rigorous evaluation processes and effective training strategies that adhere to industry standards and applicable legislation.

4.4   Data Governance Rights

At its meeting of October 26, 2020, Council also directed staff to investigate data governance rights as they pertain to voting tabulator technology as well as online and telephone voting.

Data governance is the process of managing the security, use, access and integrity of data. As noted, the City has been using components of electronic voting for a number of years, including live voter lists for Advance Voting Opportunities and Voting Day, Optical Scan Tabulators, online revisions to the voter list and most recently, electronic registration for vote-by-mail on request.

It is important to note that access and privacy legislation as well as the security and integrity of the voting process as a whole have always been of the utmost priority with respect to conducting elections. Procedures have always been established to manage who has access to data or equipment, how information is stored or transported and how the data is used. The Clerk's Election Procedures will expand on these procedures to identify all data sources and establish a framework of standards and policies for the access and use of the data. Regardless of the method of election, the framework will be developed in collaboration with ITS and the Information, Access and Privacy Officer to ensure adherence to the City's data system policies as well as the principles and provisions of the Municipal Elections Act and Municipal Freedom of Information and Protection of Privacy Act.

4.5   Internet Voting Standards

In accordance with Committee's direction of October 20, 2020, a request to establish legal, technical and operational security standards and guidelines for internet voting in municipal elections was sent to the Provincial Government. The Province's response is Attachment 1 to this Report. As of the 2022 regular election, there were no standards governing the implementation and use of internet voting for Canadian municipalities.

The Digital Governance Standards Institute (D.G.S.I.) is a Canadian organization that works to create standards for the management of digital technologies in order to reduce risks for Canadians and Canadian organizations participating in the digital economy. The D.G.S.I. worked with thought leaders and experts in cybersecurity, political science, public policy, election administration and related subjects to publish a draft standard on internet voting in late 2023, and it is anticipated that the final version of these standards will be published in December 2024.

The draft standard specifies technical design requirements for internet voting and best practices for Election Management Bodies who are implementing online voting in Canadian municipal elections. The draft standard includes provisions on the following matters:

- Security of systems and data;
- Voter Identity and vote authentication;
- Verification, testing and auditability;
- Access to online voting services and voter information;
- Secrecy of the vote;
- Ballot design and casting options;
- Bandwidth and network capacity;
- Election Management/Administration;
- Accessibility requirements;
- The roles of candidates and scrutineers; and,
- Transparency of product design and compliance with the Standard.

Prior to this, the absence of a standard meant other municipalities using internet voting were left to devise and implement their own standards, with some based on the Council of Europe's Standards of E-Voting. Despite the lack of an overarching standard, 217 municipalities in Ontario saw their elections successfully delivered wholly or partly online in 2022.

As of the writing of this Report, the standards are not binding for municipalities nor are there any binding standards or regulations specifically regarding internet voting from the provincial or federal governments. However, the draft standard (and final version, once released) provides a useful benchmark for municipalities to abide by. Staff, therefore, find it appropriate to apply the draft standard and any final, published version of said standard to the analysis or application of any internet voting process in Oshawa.

4.6   Security Tools

To mitigate further risks, staff will use a combination of security tools including:

- Management Controls such as assessments of vendor software to identify vulnerabilities, developing emergency plans

- Operational Controls such as appropriate training and procedures, access restrictions as appropriate

- Technical Controls such as software encryption, penetration testing and audits

Should Council adopt the recommendation contained in this Report, staff will commence the request for proposal process as required under the City's Purchasing By-law to seek an appropriate service provider for an internet voting system. The award of a contract will be contingent upon a penetration test and security analysis to the satisfaction of the Director, Legislative Services/City Clerk and Chief Information Officer.

Upon completion, staff will report to Council regarding the findings for final approval to proceed with executing the contract for internet voting. In the event that no selected vendor passes a penetration test and security analysis to the satisfaction of the Director, Legislative Services/City Clerk and Chief Information Officer, such report will seek direction to proceed instead with paper ballots and vote tabulators for the both the Advance Voting Period and Voting Day.

4.6.1   Emergency Plan

Section 53 of the Municipal Elections Act permits the clerk of a municipality to declare an emergency if circumstances have arisen that are likely to prevent the election being conducted in accordance with the Act. The clerk may make any such arrangement as they consider advisable for the conduct of the election, provided they are consistent with the principles of the Act as previously identified.

As part of all election planning, staff develop an Emergency Plan to provide guidance in the event of an unexpected circumstance that interrupts or poses a threat to the voting process. This plan provides instructions and steps to be taken by staff and/or vendors in the event of any issues with voting procedures. For the 2026 Municipal and School Board Elections, the plan will include additional risk mitigation measures to ensure the security for the online environment, or in the event of power outages, vendor outages, or late/failed delivery of equipment and services, etc., as well as how the City will respond to any such emergencies to ensure voters are still able to cast their ballots.

4.6.2   Operational Controls

As with any election conducted by the City, appropriate operational controls will be implemented to ensure only properly trained staff access and operate voting equipment or systems. Staff will receive necessary training with respect to election and voting systems as well as the election process in general, including the principles of integrity, security and equity.

4.6.3 Technical Controls

Should Council adopt the recommendation contained in this Report, staff will issue a Request For Proposal (R.F.P.) to select a vendor to provide internet voting services to be offered in conjunction with paper ballots and vote tabulators on Voting Day; however, the vendor will be advised that execution of an agreement to provide the service will be subject to penetration testing and technical analysis review to be performed by a separate contractor.

Once a vendor has been selected, staff will engage a third party to provide a comprehensive, independent security analysis and testing to review the proposed vendor for risks and specifications such as (but not limited to):

- end-to-end verifiability;
- authentication measures;
- audit capability;
- resilience to denial-of-service attacks;
- potential for platform to malfunction;
- risk of individuals voting multiple times;
- loss or theft of Voter Information Packages; and,
- secrecy of the vote.

The testing and analysis will identify the level of risk and impact on operations and provide any technical or procedural recommendations to increase security to be integrated into election procedures or vendor contracts.

For example, risk mitigation measures may include (but would not be limited to):

- Ensuring trained staff are available, including adequate vendor resources and live support;

- Ensuring equipment at V.A.C.s has adequate protection and are regularly scanned for malware;

- Monitoring the voting application for suspicious activities, such as a high number of failed login attempts or high activity from a single location;

- Extensive testing of the voting application to find and mitigate flaws in the design or construction of the voting system that could lead to voter fraud;

- Testing of the system's maximum load capacity before deployment and regular monitoring during voting;

- Education for voters on their rights with respect to voter fraud as well as education and public information regarding legitimate voting methods/channels; and,

- Encouraging voters to attend a V.A.C. if they need assistance or do not wish to use personal devices for voting purposes.

It is expected that whatever vendor is the successful proponent will comply with any technical or procedural recommendations resulting from the security testing and analysis

as well as any internet voting standards available at the time. As noted, failure to meet these minimum requirements will result in not moving forward with the contract.

4.7   Election Fraud

Election fraud is a consideration no matter what voting method is used. Even using traditional paper ballots with a manual counting system as set out in the Municipal Elections Act, an elector could knowingly and intentionally commit fraud.

In accordance with Section 89 of the Act, a person is guilty of an offence if he or she:

(a)   votes without being entitled to do so;

(b)   votes more times than this Act allows;

(c)   votes in a voting place in which he or she is not entitled to vote;

(d)   induces or procures a person to vote when that person is not entitled to do so;

(e)   having appointed a voting proxy that remains in force, votes otherwise than by the proxy;

(f)   having been appointed a voting proxy, votes under the authority of the proxy when the elector has cancelled the proxy, is no longer entitled to vote or has died;

(g)   before or during an election, publishes a false statement of a candidate's withdrawal;

(h)   furnishes false or misleading information to a person whom this Act authorizes to obtain information;

(i)   without authority, supplies a ballot to anyone;

(j)   delivers to the deputy returning officer to be placed in a ballot box a paper other than the ballot the deputy returning officer gave him or her;

(k)   takes a ballot away from the voting place;

(l)   at an election, takes, opens or otherwise deals with a ballot, a ballot box, or a book or package of ballots without having authority to do so;

(m)   attempts to do something described in clauses (a) to (l).

When a person is convicted of an offence under Section 89, the presiding judge finds that the offence was committed knowingly, the offence also constitutes a corrupt practice.

Section 94.1 of the Act sets out specific penalties for those convicted of an offence:

(1)   An individual who is convicted of an offence under this Act is liable to the following penalties in addition to any other penalty provided for in this Act:

1. For any offence, a fine of not more than $25,000.

2. For any offence other than a corrupt practice, the penalties described in subsection 88.23 (2) and 88.27 (1).

3. For an offence under section 90, imprisonment for a term of not more than six months.

4. For any offence that the presiding judge finds that the individual committed knowingly, imprisonment for a term of not more than six months.

(2) A corporation or trade union that is convicted of an offence under this Act is liable to a fine of not more than $50,000 in addition to any other penalty provided for in this Act.

With respect to stealing addressed voting packages from the mail, Section 356(1) of the Criminal Code of Canada, R.S.C., 1985, c. C-46 ("the Code") states that it is an offence to steal anything sent by post after it is deposited at a post office and before it is delivered, or after it is delivered but before it is in the possession of the addressee. A person found guilty of an offence under this section of the Code may face a term of imprisonment for up to 10 years.

Internet voting systems can provide a greater range of information with respect to when, how and where ballots were cast in order to assist in investigating any reported instances of voter fraud. For example, if a voter were to steal all of the P.I.N.s from all those living in the same household and, using their knowledge of the associated birthdates, commits voter fraud by casting ballots for everyone, the system could be configured to identify if all ballots were cast from the same IP address, if they were cast within a few minutes of each other and what time of day it occurred. It is important to note that despite being able to provide this type of information, these systems are not able to provide how the ballots were filled out, ensuring the secrecy of vote is upheld.

Depending on the provider, systems can be configured to flag suspicious voting activity, such as more than a certain number of votes cast from one IP address, or votes cast from other countries to allow further investigation.

As with all methods of election, the onus is on the electors themselves to prevent voter fraud. Regardless of the method of election selected, the City will focus a portion of election messaging in 2026 on the importance of ballot secrecy and protecting an individual's vote.

4.8   Public Consultation

Ensuring voters receive the information they need in order to cast their votes efficiently and with confidence in a new system requires public consultation and voter education.

Understanding the voting behaviors of eligible voters helped shape and inform the voting method recommended for the 2026 Municipal and School Board Elections. The City conducted a public consultation between June 3 and June 20, 2024 to receive feedback from eligible voters on internet voting. The City commissioned Environics Research to

conduct a mixed mode (telephone and online), statistically-significant survey of eligible voters for the 2026 Municipal and School Board Elections.

The Environics Research telephone and online survey was conducted with a representative sample of 500 persons who are eligible to vote in Oshawa's 2026 Municipal and School Board Elections. Of the 500 total sample, 150 were contacted via landline, 150 were contacted via cell phone, and 200 completed the survey online. Survey data was statistically weighted by region/FSA and gender by Environics Research to ensure the final sample reflected Oshawa's eligible voters per the 2021 Census.

In addition to the statistically significant survey conducted by Environics Research, the City hosted a feedback form open to all Oshawa voters who wished to share their opinions on the City exploring the possibility of offering internet voting for its 2026 Municipal and School Board Elections. The feedback form was available online on Connect Oshawa and on paper at Service Oshawa. The City received feedback from 250 eligible respondents, which means they are of voting age, an Oshawa resident and Canadian citizen and had not already completed the Environics Research telephone or online survey. The results were similar to those of the Environics Research survey.

4.8.1 Environics Research Survey Results

Topics covered in the survey included past voting habits, behaviours and experiences including challenges and barriers faced in the current voting process, as well as measured support for or against the use of internet voting as a potential method of election.

Key Insights

- **Lack of awareness, availability and desire to vote were the main barriers to voting experienced by respondents**. When those who did not vote in the last elections were asked why, two in 10 (20%) indicated that they did not feel like voting. Another 17% say they did not know how to vote, and 13% report being too busy or out of town at the time of the election.

- **Those who voted in Oshawa's last Municipal and School Board Elections reported an easy experience.** More than nine in 10 (92%) of those who did vote, said that the process was at least somewhat easy, and 56% considered it to be "very easy".

- **Security is the primary concern for respondents when they considered the possibility of online voting**. Regardless of whether they support the introduction of online voting, more than half of feedback form respondents mentioned concerns about voter fraud, tampering and internet security in their open-ended answers. Of the survey respondents who said they were unlikely to use internet voting, voter security and fraud concerns were the number one reason (41%).

- **Despite reservations about security, most respondents were supportive of the introduction of internet voting**. Survey data shows that the majority (73%) of respondents would support the implementation of internet voting, and 70% intend to personally use it. Supporting feedback form data collected on Connect Oshawa echoes these sentiments, with 67% of respondents showing support.
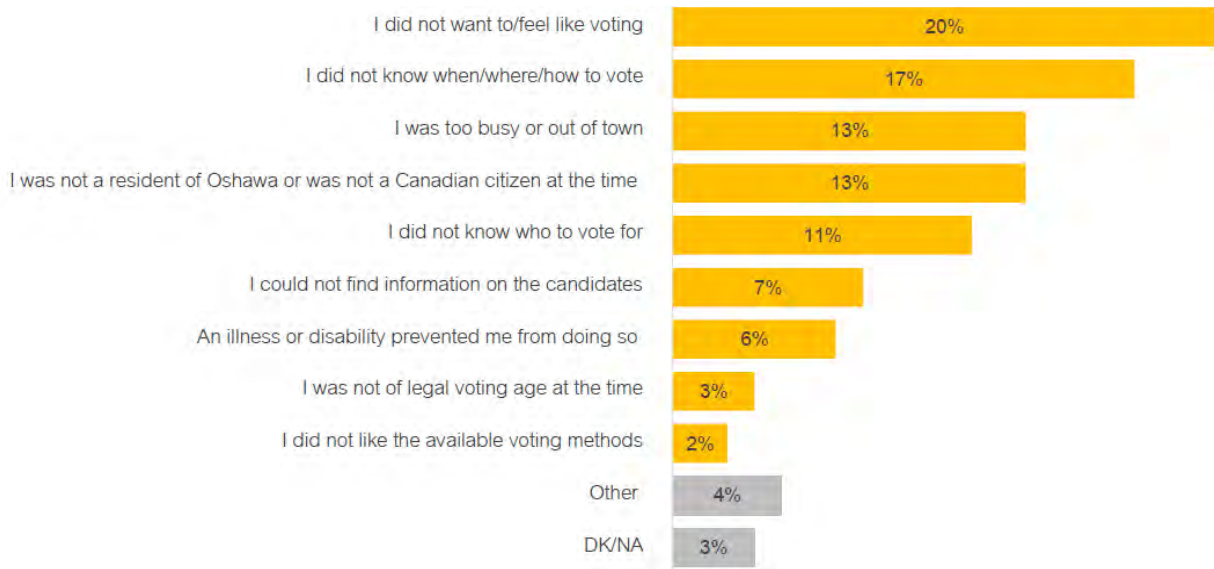
- **There was some indication that those who did not vote in the previous election may respond positively to internet voting**. 34% of those who did not vote in the previous election said they would be 'very likely' to vote if internet voting were offered in the 2026 Elections.

- **Accessibility and voter turnout are main drivers of support for internet voting methods.** The highest proportion (61%) of respondents indicated that the statement "internet voting is convenient" would make them more likely to use this voting method. Connect Oshawa feedback form responses supporting internet voting most often identified increased voter turnout (40%) and increased accessibility (25%) as reasons for their support.

Voter Turnout

The results of the survey show that just over half of respondents report having voted in Oshawa's 2022 Municipal and School Board Elections. This reflects 52% of respondents out of the 500 surveyed. It is important to note that as a self-reported measure, the reported voting behaviour would be much higher than the actual voter turnout.

Reasons for Not Voting

Of the 47% who reported not voting in Oshawa's last municipal election the most common reason was that they did not want to or feel like voting. Other common reasons were not knowing how to vote and being busy or unavailable at the time.

Reason	%
I did not want to/feel like voting	20%
I did not know when/where/how to vote	17%
I was too busy or out of town	13%
I was not a resident of Oshawa or was not a Canadian citizen at the time	13%
I did not know who to vote for	11%
I could not find information on the candidates	7%
An illness or disability prevented me from doing so	6%
I was not of legal voting age at the time	3%
I did not like the available voting methods	2%
Other	4%
DK/NA	3%

Voting Experience

Of the 52% of respondents who voted in the last election, over nine in 10 described the process as at least "somewhat easy", with 56% saying it was "very easy".
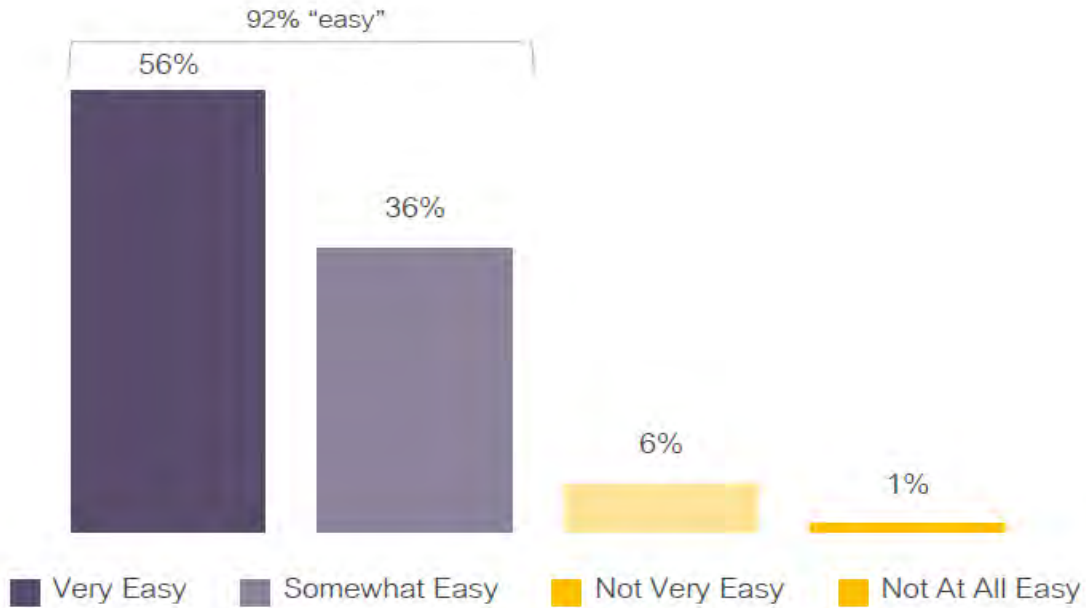

Support for Internet Voting

Out of the 500 eligible voters surveyed, nearly three quarters of respondents showed some support for the introduction of an online voting method in Oshawa's 2026 Municipal and School Board Elections, with almost 40% indicating strong support.
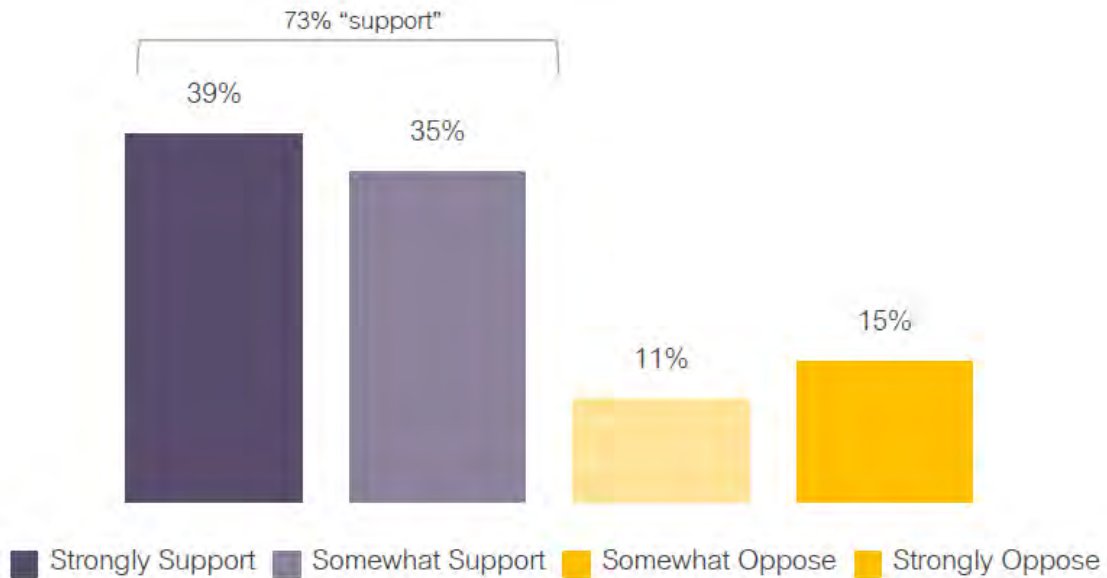
Out of the 500 surveyed, 70% indicated they are likely to use an internet voting option if offered in the 2026 Municipal and School Board Elections, with more than 40% stating they are "very likely" to do so. Conversely, less than 20% of respondents indicated they are "not at all likely" to use internet voting if offered.
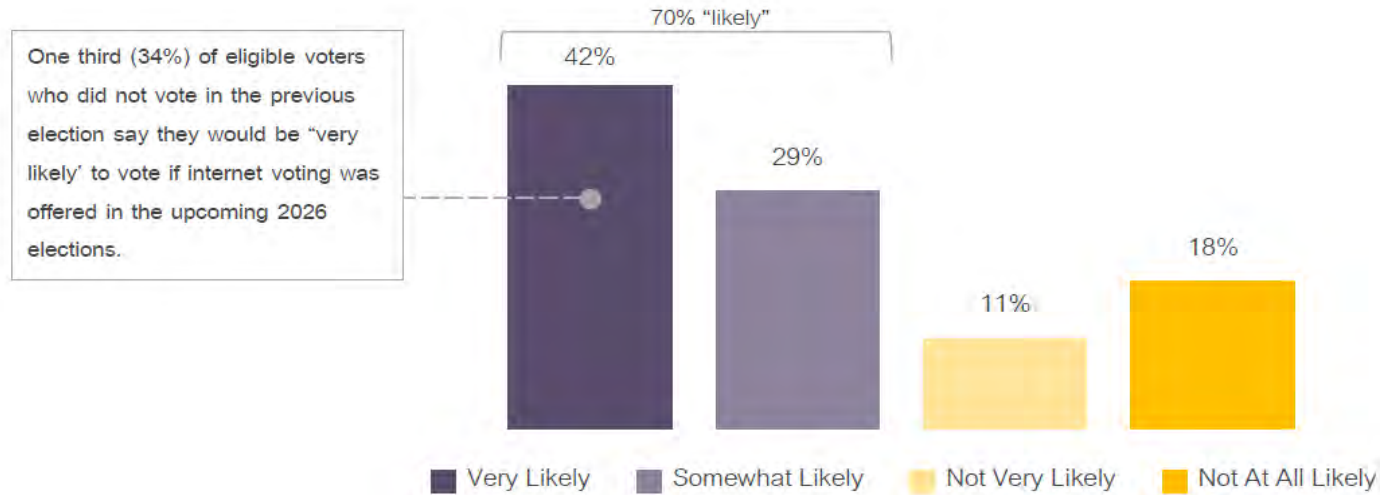

Reasons for Not Using Internet Voting

Those who indicated they are unlikely to use internet voting if offered in the 2026 Municipal and School Board Elections were asked to provide a reason for their response. The most common explanation was general concern about issues with voter fraud and election security, followed closely by a simple habit or preference for voting in person. 7% stated that they simply do not vote in any elections, regardless of the method of voting.
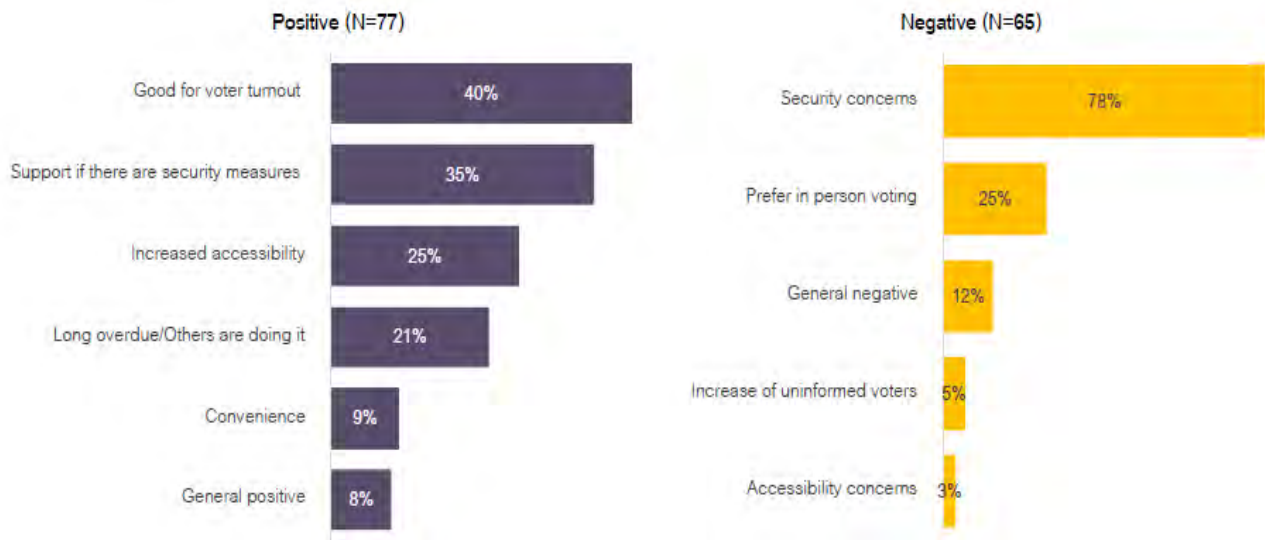
Past Voting Behaviour

Those who did not vote in the previous election (but were eligible to do so) were asked whether they would have been more or less likely to vote if internet voting had been available. Just over half of the respondents indicated that they would have been "more likely" to vote.
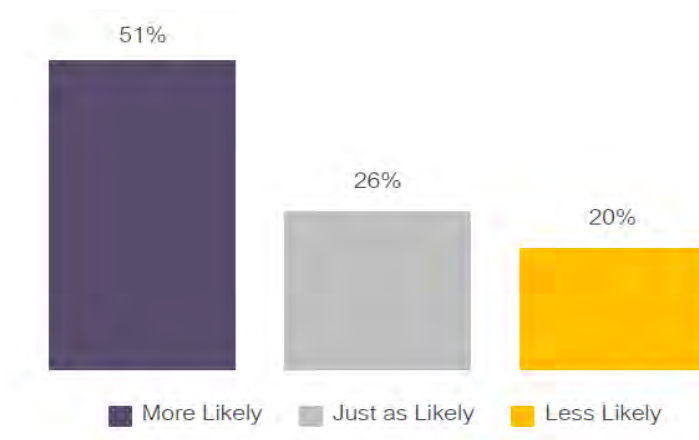
4.8.2　Connect Oshawa Feedback Form

Consistent with the formal Environics Research survey, almost 70% of feedback form respondents are supportive of the implementation of internet voting, with 58% "strongly supportive" of the City introducing internet voting.

In the City's feedback form, respondents were asked to share their thoughts on internet voting. Positive responses outweighed negative responses, as detailed in the graph below. Consistent with the responses from the Environics Research survey, security concerns was the primary reason for not supporting internet voting; however, as discussed in this Report, the City will take every measure possible to ensure the security of the vote.

Positive (N=77)

Good for voter turnout	40%
Support if there are security measures	35%
Increased accessibility	25%
Long overdue/Others are doing it	21%
Convenience	9%
General positive	8%

Negative (N=65)

Security concerns	78%
Prefer in person voting	25%
General negative	12%
Increase of uninformed voters	5%
Accessibility concerns	3%

4.8.3　2022 Post Election Feedback Form – Improving Accessibility

Following the 2022 Election, Oshawa voters had the opportunity to complete a feedback form regarding their voting experience, with 224 completing the form. The results revealed that a number of respondents referenced the use of online or telephone voting with respect to ways to improve accessibility. Of the 97 respondents who provided comment on feedback form questions related to accessibility, 42 indicated they would prefer to vote online or via telephone, noting that this would also improve access for themselves or their families and friends. In addition, 4 of the 42 respondents who indicated they did not vote specifically stated that the lack of online voting options was a contributing factor in choosing not to vote.

4.8.4　Summary of Findings

Based on the information gathered, it is evident there is support for internet voting amongst eligible voters within the City of Oshawa. This information aligns with the City's initiative to implement internet voting as an alternative voting method and shows a shift in public perspective that supports the innovation of municipal services. When looking at voter attitudes towards internet voting, the most common reason for positivity is the belief that internet voting will improve voter turnout. Conversely, the most common concern with internet voting is security.

It is important to note that most of the risks associated with internet voting are inherent to all online transactions, regardless of nature (e.g. online banking, shopping). As previously mentioned, this risk can be mitigated by ensuring the vendor selected has security features such as antivirus protection and automated encryption. Technical analysis of the voting software will also play a critical role in ensuring protection of the online voting system, and penetration, logic and accuracy testing and configuration audits will be performed on the software once the vendor is selected. Further, defining and establishing internet voting monitoring, auditing, logging system requirements as well as procedures for incident response will address concerns.

5.0   Financial Implications

The first election cycle with internet voting is the most expensive to implement. There are significant costs associated with workflow changes, procuring and testing equipment and voter education.

When internet voting is the only method of election used throughout a Voting Period, savings can be realized with respect to the costs associated with paper ballots and tabulators as well as staffing costs. Offering a hybrid system with both internet and paper methods of election will increase costs associated with conducting the election.

Should Council adopt the recommendation contained in this Report to provide internet voting throughout the Advance Voting Period and on Voting Day along with paper ballots and vote tabulators on Voting Day, the anticipated cost of the 2026 Municipal and School Board elections will be $1.9 million and would be funded from the Elections Reserve.

6.0   Relationship to the Oshawa Strategic Plan

This Report responds to the Oshawa Strategic Plan Priority Area "Lead: Governance and Service Excellence" with the goal to provide transparent, efficient, and responsible fiscal stewardship and use of resources.

Laura Davis, Manager, Legislative Services/Deputy City Clerk,

Mary Medeiros, Director, Legislative Services/City Clerk,
Office of the C.A.O.

OFFICE OF THE MAYOR

CITY OF OSHAWA
50 CENTRE STREET SOUTH
OSHAWA, ONTARIO
L1H 3Z7
TELEPHONE   (905) 436-5611
FAX   (905) 436-5642
E-MAIL: mayor@oshawa.ca

OSHAWA
ONTARIO, CANADA

MAYOR DAN CARTER

November 17, 2020

The Hon. Steve Clark
Ontario Minister of Municipal Affairs
Frost Building South, 7th Floor
7 Queen's Park Crescent
Toronto, Ontario M7A 1Y7

Dear Minister Clark,

Re: Modernization of Municipal Election Voting Methods

I would like to thank you for the opportunity to be able to bring to your attention the opportunity to review the modernization of our municipal voting methods and the support that we will require from the Province as we forge ahead.

City of Oshawa's staff and Council have undertaken an investigation in regards to updating our voting system. Our municipality is looking to move from the traditional ballot based system to online and telephone voting. We are enthusiastic about exploring and introducing a more efficient way for voters to cast their ballots.

Approximately 200+ municipalities across Ontario have implemented Internet voting and well qualified experts in the fields of Internet voting and cybersecurity have undertaken research on this topic. During Oshawa City Council's consideration of implementing Internet voting, several questions have been raised such as ensuring the security of the vote itself, how a recount would be conducted and who would own the data that is collected. The technology tendering processes and lists of certified vendors are also of concern.

Many municipalities are struggling to find the right combination when it comes to data protection, certified technology, certified companies and processes to follow resulting in each individual municipality to navigate on their own. Without guidelines from the Province, we feel that there are gaps regarding legal, technical and operational security standards and guidelines for municipalities to follow to implement secure Internet voting for elections as well as to ensure consistency across the Province.

As municipalities continue to implement Internet voting as a means to modernize and engage citizens in our election process, it is vitally important that Provincial legislation address the legal, technical and security issues. I am asking that the Province undertake the exercise to bring forward a bill that would provide all municipalities with a legislative framework for consistency across the Province.

I look forward to our conversation and hope the Province will undertake this exercise so that in 2026 Ontario municipalities will have the guidelines and principles in place to be able to modernize their election process.

Yours truly,

Dan Carter
Mayor

cc: Hon. Doug Ford, Premier of Ontario
        Jennifer French, MPP
        Lindsey Park, MPP
        Lorne Coe, MPP
        Rod Phillips, MPP
        Peter Bethlenfalvy, MPP
        Laurie Scott, MPP
        Durham Clerks
        Durham District School Board
        Durham Catholic District School Board
        Association of Municipal Managers
        AMO

Ministry of
Municipal Affairs
and Housing

Office of the Minister

777 Bay Street, 17th Floor
Toronto ON   M7A 2J3
Tel.: 416 585-7000

Ministère des
Affaires municipales
et du Logement

Bureau du ministre

777, rue Bay, 17e étage
Toronto ON   M7A 2J3
Tél. : 416 585-7000

Ontario

234-2020-5190

January 7, 2021

Your Worship
Mayor Dan Carter
City of Oshawa
mayor@oshawa.ca

Dear Mayor Carter:

Thank you for your letter on the modernization of municipal voting methods and equipment certification. I appreciate you taking the time to share your views.

Our government is committed to enhancing consistency in the elections process. That is why earlier this year, we responded to a request from the Chief Electoral Officer of Ontario and made changes to create a single voters' list for both municipal and provincial elections, beginning in 2024. A single register of electors will reduce the need to make corrections on election day, shorten wait times, and save municipalities money.

As you are aware, municipal councils have the flexibility to pass by-laws to permit alternative methods of voting (e.g. mail, telephone, or internet). When a council has authorized the use of alternative voting, the municipal clerk is responsible for establishing procedures for its use. This local flexibility allows council and the clerk to ensure the security and integrity of municipal elections when making decisions about election processes that meet local needs and circumstances.

I appreciate you taking the time to provide feedback on how to help support municipalities modernize local elections. Local governments deliver critical services to residents. It is in everyone's interest that they are efficient and respect taxpayers' hard-earned money. We will continue to support and work with Ontario's municipalities, so they remain vibrant and sustainable.

Once again, thank you for bringing your concerns to my attention. Please accept my best wishes.

Sincerely,

Steve Clark
Minister