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2017 Municipal Election

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The Office of the City Auditor conducted this
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2017 Municipal Election

Table of Contents

1	Introduction	1
2	Background	1
3	Audit Objective, Criteria, Scope and Methodology	4
3.1	Objective	4
3.2	Criteria.....	4
3.3	Scope	4
3.4	Methodology	5
4	2017 Observations and Analysis.....	6
4.1	Reducing Barriers to Voting	6
4.2	Use of Technology	9
4.2.1	Ballot on Demand Printing.....	9
4.2.2	Use of Tablets.....	10
4.2.3	Vote Tabulating Machines	11
4.3	Voting Station Oversight.....	13
5	Conclusions.....	16
	Appendix 1 – Status of Recommendations from 2013	17

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2017 Municipal Election

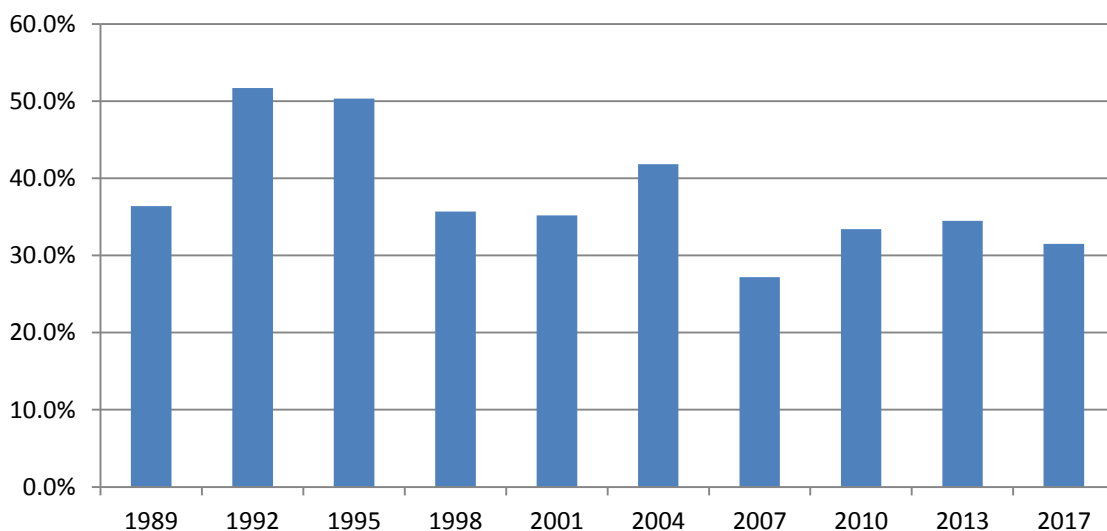
1 Introduction

The Elections and Census Office (Edmonton Elections) is responsible for planning and executing Municipal Elections. This typically requires about two years of intensive effort to ensure that Election Day proceeds as smoothly as possible. Municipal Elections are governed by the *Local Authorities Election Act*, associated regulations, and City Bylaws. This project was included in our 2017 Annual Work Plan.

2 Background

The 2017 Municipal Election Day was October 16. Edmonton Elections provided voting opportunities in 276 distinct locations and hired 2,383 temporary election workers. The Office of the City Auditor (OCA) has been providing consulting and assurance services for the past ten elections (since 1989). Information on OCA recommendations from our 2013 audit report are found in Appendix 1. Voter turnout as a percent of eligible voters, for the past 10 elections, is included in Chart 1 below.

Chart 1 – Percent of Eligible Voters by Election Year

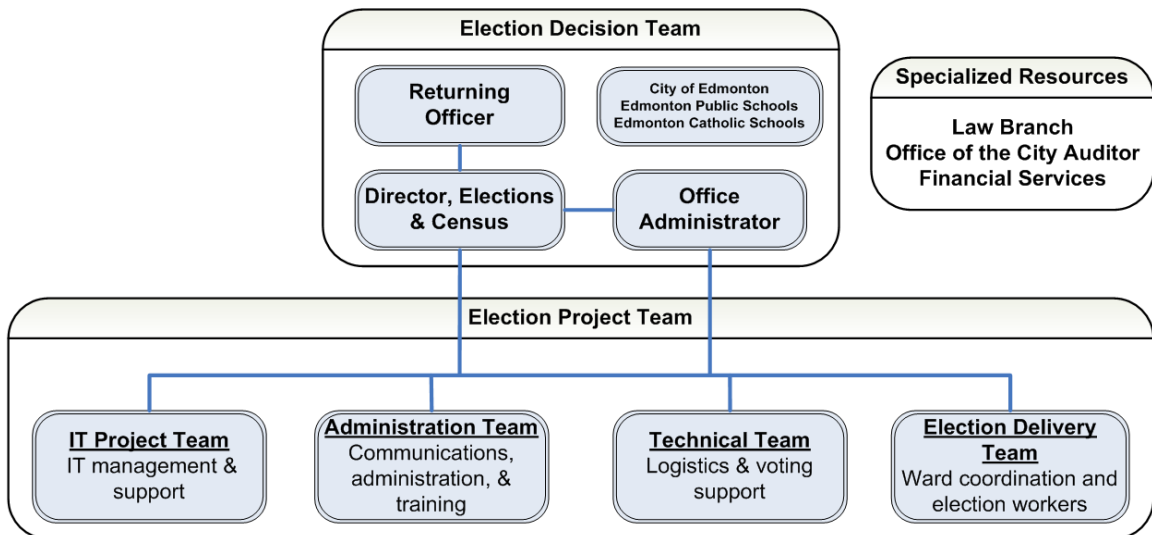


Extended Election Planning Team

Edmonton Elections is responsible for election processes including the coordination and participation of City staff. This involves contributions of a number of staff from Information Technology Branch, Financial Services Branch, Community Standards and Neighbourhoods Branch, Communications Services Branch and Law Branch, among others.

The organizational structure of the 2017 Extended Election Planning Team is shown in Chart 2.

Chart 2 – 2017 Extended Election Planning Team



The City Clerk is the designated Returning Officer for the City of Edmonton, and is responsible for ensuring that the Municipal Election is carried out in accordance with legislative requirements. The Returning Officer, the Director, Elections and Census, the Office Administrator and various stakeholders form the Election Decision Team. The Election Decision Team provides overall guidance and decision-making to the Election Project Team, which is responsible for planning and overseeing the election, and for managing the election logistics. The Specialized Resources representatives from Law

Branch, Finance Branch, and the Office of the City Auditor provide guidance and advice to the Election Decision Team as required (process control measures, independence, legal matters, etc.) and participate in election planning meetings on an as-needed basis.

Legislation

The *Local Authorities Election Act* and associated regulations cover requirements such as nomination requirements (who is eligible to run in an election and what they must provide to qualify), voter eligibility requirements (proof of residency), and Election offences such as intentionally compromising ballot secrecy. City Bylaws allow for the use of technology in tabulating results, and set additional requirements such as voting station hours and providing voting opportunities by special ballot and at institutions (hospitals, seniors accommodation facilities, etc.).

Election Costs

There are significant costs involved in running an election to hire both project-based staff and temporary election workers, rent equipment, purchase supplies, and pay for voting station space and a variety of other election-related costs. Through agreements with the Boards of Edmonton School District No. 7 and Edmonton Catholic Separate School District No. 7, the City recovers close to forty percent of the election costs in exchange for administering the election of School Board Trustees. Table 1 shows the budgeted and actual costs related to the election, as well as the amounts recovered. When expenditures and recoveries are factored in, the 2017 Municipal Election cost the City \$61,226 less than budgeted.

Table 1: Budget vs. Actual Costs

	Budget	Actual	Variance
Expenditures	\$ 3,951,882	\$ 3,745,785	\$ 206,097
Recoveries	(1,600,000)	(1,445,129)	(154,871)
Cost to the City	\$ 2,351,882	\$ 2,300,656	\$ 51,226

During the weeks ahead of Election Day, Edmonton Elections organized a candidate forum for each of the Ward Councillor positions, as well as three forums for Mayoral candidates. The primary function of these forums is to provide an opportunity for voters to learn more about each of the candidates' platforms. Costs incurred to pay for location rental, security, forum moderators and webcasting services for these events, totaling approximately \$200,000.

3 Audit Objective, Criteria, Scope and Methodology

3.1 Objective

Our primary audit objective was to provide assurance that the 2017 Municipal Election planning and voting were conducted in accordance with legislation, in a manner that ensured the accuracy and auditability of the vote, and in compliance with election procedures as outlined in the City's training materials.

3.2 Criteria

We used the following criteria to assess the audit objective:

1. The election planning process appropriately addresses issues and potential issues that could impact the effectiveness, accuracy or auditability of the voting process.
2. The election is carried out in compliance with the requirements of the *Local Authorities Election Act*, associated regulations, City Bylaws, and the City's documented Election processes.
3. The election is carried out in a manner that ensures the accuracy and auditability of the vote.

3.3 Scope

All 2017 Municipal Election planning processes and outcomes (including Nomination Day and Election Day) were within the scope of this audit. In order to maintain our independence, the OCA did not participate in any decision-making or approval of processes or procedures chosen by the Edmonton Elections. We limited our planning involvement to providing advice based on our experience with previous elections and our knowledge of systems of control and project management processes.

3.4 Methodology

Planning

During this phase, we attended select Extended Election Planning Team meetings and provided control and risk-related advice. We also reviewed previous election audit reports and the City's 2017 Election planning documentation to align our activities with fixed dates and to identify any significant changes from previous election processes. This work related to audit *Criteria 1*.

Fieldwork

Our role during fieldwork was to examine processes and assist the Returning Officer with resolving any issues that may arise during the election. We also observed voting station processes and the voting data collection, compilation and results release processes. This work related to audit *Criteria 2* and *Criteria 3*.

We observed and reviewed logic and accuracy testing of the vote tabulating machines and associated hardware to be used in advance voting stations, on Election Day or as spares. The purpose of this testing was to ensure that each machine accurately records and reports each actual ballot cast (audit *Criteria 3*). Logic and accuracy testing was also conducted on the information systems used on Election Day to collect and transmit results to the Edmonton Elections office. We verified the results generated by the voting results compilation software against the test ballots.

On chosen advance voting days and during Election Day, we assigned auditors to visit selected voting stations to observe the voting process and provide feedback to the Returning Officer on the overall integrity of the election process (audit *Criteria 2*). We also assigned auditors to Edmonton Elections office and to those voting stations where potential assistance would be useful at closing time, based on issues that arose during the day.

4 2017 Observations and Analysis

We participated in select planning meetings and reviewed processes to be used in the election. By doing this, we were able to gain assurance over audit *Criteria 1*, that the planning process appropriately addressed issues and potential issues that could impact the effectiveness, accuracy or auditability of the voting process. Edmonton Elections' processes were designed in alignment with provincial and municipal requirements.

During advance voting and on Election Day, we visited approximately fifty percent of all voting stations (121 of 240). We did not observe any issues that were in conflict with the requirements of the *Local Authorities Election Act* or the City's bylaws (audit *Criteria 2*).

We did observe instances where the City's documented Election processes were not followed (audit *Criteria 2*), although none of those had an impact on the overall results of the election. Based on our observations and our controls testing, we found that the 2017 Municipal Election was conducted in a manner that ensured the accuracy and auditability of the vote.

A number of process improvements were made for 2017, and we identified some further opportunities to improve specific processes. These opportunities should enhance the conduct of future municipal elections. We have grouped our observations and analyses into four themes: reducing barriers to voting, use of technology, continued updates to training, and effective use of City resources.

4.1 Reducing Barriers to Voting

Edmonton Elections carried out a public engagement process to better understand positive voting experiences, as well as opportunities and recommendations to enhance them. The full report, entitled "Understanding Voter Needs", can be found on the City of Edmonton website¹.

¹ https://www.edmonton.ca/city_government/documents/elections/Understanding_Voters_Needs_report_FINAL_Aug_8_2016.pdf

After the 2013 election, there were five groups of people who identified barriers with the voting process: Youth, Seniors, Indigenous, New Canadians and Persons with Disabilities. Edmonton Elections sought participation in the engagement process from people who identified as being in one of these five groups, or represented them.

An online survey received 288 responses, and 362 people participated in the 22 different in-person workshops that were held. The work was performed between October 2015 and June 2016, and was undertaken to find additional ways to make voting as appealing, easy, and free of barriers as possible. The results of where participants felt they would like to see Edmonton Elections improve are included in Table 2.

Table 2: Options for Removing Barriers to Voting

Area	Examples
Accessibility	Bringing voting stations to vulnerable populations and following best practice design standards to support accessibility at voting stations.
Transportation	Providing free or low cost, accessible, reliable public transportation on election day and organizing ride-sharing programs.
Access to On-Site Supports	Providing a wide variety of voting technologies as well as basic supports available to voters, such as benches to sit and wait.
On-Site Personnel	Ensuring the right on-site personnel to provide assistance, who know the appropriate supports to offer people and are able to provide culturally-sensitive support in the voter's first language.
More Voting Options	Online voting, bringing voting stations to vulnerable populations, and more voting stations.

Better Alignment Between Legislated and Preferred Communication Channels	Video, social media, live-streaming election forums, and live results.
Better Design for Election Materials and Ballots	Candidate pictures on ballots and larger fonts, fewer words and more visuals, and high-contrast colours for communication materials.

Based on the feedback that was received, Edmonton Elections implemented some of the new ideas and further strengthened some of those processes already in place.

For instance, in selecting voting station locations for 2017, they performed an assessment of factors such as proximity to public transit, parking availability, relative ease of finding the location and compliance with Accessibility and Universal Design in Architecture Guidelines. Stations used in 2013 were not used in 2017, based on significant issues being noted. Edmonton Elections also made efforts to hire election workers fluent in languages that are more common in specific voting areas. This aligned with Recommendation 4 from our 2013 report (see *Appendix 1*).

With respect to voting opportunities, there is always a trade-off between providing more opportunities and the cost to do so. Similar to past elections, voters had the option of requesting a Special Ballot, which provides an opportunity for eligible voters to cast a ballot by mail. Compared to 2013, there were an increased number of advance voting stations (six in 2017 versus five in 2013) which were open for a longer period of time (ten days in 2017 versus five days in 2013).

Edmonton Elections once again provided on-site voting opportunities to residents in Seniors Accommodation Facilities, and substantially increased the number of locations visited (65 locations in 2017 versus 26 locations in 2013). They also provided unit-to-

unit, or bed-to-bed voting opportunities at a number of hospitals and care facilities, as well as at select service organizations such as Boyle Street and The Mustard Seed.

By increasing the number of opportunities to vote, Edmonton Elections showed dedication to further reduce barriers to voting.

4.2 Use of Technology

For the 2017 Municipal Election there was an increased integration of technology into the election processes. There were a number of technology-related issues that arose during the election, which are detailed below.

4.2.1 Ballot on Demand Printing

Edmonton Elections made a decision for the 2017 election to use ballot on demand printers in advance voting stations. Advance voting stations for this election required an unknown quantity of between 7 and 9 unique ballot styles. The intention was to use ballot on demand printers to provide these ballots on-site, instead of shipping pre-printed ballots from Edmonton Elections office on a daily basis. The intention was to avoid a possible need for a mid-day resupply if voter turnout was higher than anticipated. Processes were developed and the printers were tested in the summer of 2017, with no significant issues noted at that time.

Prior to stations opening on the first day of advance voting opportunities, an issue was observed with certain ballot on demand printers in multiple stations, where the printers were not able to print ballots. Upon analysis, it was determined that there was an issue with printer buffering that was not previously indicated by the supplier, nor was it observed during the testing of the system. Once the printer reached a certain number of ballots printed, it needed to be reset by an IT technician.

In response to the issue, Edmonton Elections began deploying drivers to each station with a ballot supply, intended to get the station through the voting requirements of the first day. A decision was made to fall back to a process for subsequent days of advance voting

opportunities, whereby ballots would be pre-printed at Edmonton Election office and shipped to the voting stations. This was similar to processes used in prior elections, except that Edmonton Elections was still able to use the ballot on demand printers to create the supply of blank ballots.

Edmonton Elections has informed us that they were not required to pay the technology supplier for any ballot on demand printers that were not used in the course of the election, which represented approximately five thousand dollars.

4.2.2 Use of Tablets

In past elections, one of the challenges faced was in the process of Ballot Clerks completing worksheets to track the number of ballots used, and the number still available, within voting stations. These worksheets would help identify if a station was at risk of running out of ballots. The expectation was that the number of ballots available were to be phoned in to Edmonton Elections multiple times per day.

For the 2017 Election a new process was implemented, which made use of electronic tablets to track activity in the voting station, as well as the remaining number of ballots available. The intent was to be able to better monitor how the election was progressing, as well as provide for a semi-automated and timely manner of notifying the Edmonton Elections Office that additional ballots may be required in a particular voting station.

On Election Day, none of the tablets in voting stations at Edmonton Public Schools locations were able to connect to the City IT systems, which represented almost half of the voting stations in the City. This caused significant delays for election workers to contact the Edmonton Elections call centre, as voting stations sought guidance on how to correct the issue or how to proceed without the tablets.

The delays were caused by a new piece of software that Edmonton Public Schools had put in place in early September 2017, which was after tablet testing had been performed (and connectivity confirmed) in each of the schools. Edmonton Elections responded by

distributing cellular-equipped tablets to impacted stations, and at the same time worked with Edmonton Public Schools staff to solve the connectivity issue.

While these delays were an issue that caused some amount of confusion, Edmonton Elections responded appropriately. We did not observe any impact to the voter experience, as a result of the connectivity issues that arose.

4.2.3 Vote Tabulating Machines

As in recent elections, the City used electronic tabulators to count votes and provide results at the close of the voting station. The type of tabulator used in 2017 included an internal modem, which allowed for wireless transmission of results directly from the voting station to Edmonton Elections.

During testing of the vote tabulators, it was discovered that a significant number were unable to wirelessly transmit results. It was determined that faulty components were installed in the tabulators, by the technology supplier. By performing testing in advance, Edmonton Elections was able to identify the issue with enough time to correct it and to re-perform testing in advance of Election Day.

Adequate testing of the vote tabulating machines relates to audit *Criteria 3*, as we gain assurance that the machines are correctly counting votes, and the transmission of the results is accurate.

Our voting station observations indicated that there were a small number of issues with the vote tabulating machines on Election Day, however the majority of these concerns had to do with start-up issues at station opening, which did not impact the overall voting process.

After voting stations were closed, the vote tabulators were used to transmit results to the Edmonton Elections Office. We observed the processes in the results centre to receive and check the transmitted results, and then release them on the City's website, and did not note any issues with the process.

Conclusion on Use of Technology

Edmonton Elections should continue to evaluate the benefits of using technology, as well as the related costs and risks associated with that use. The 2017 Election showed that adequately testing technology solutions in advance of their use can provide an opportunity to correct the issue before Election Day. While testing may not catch all the potential issues that could arise from using technology, having solid fall back plans in place also helps to ensure that even if issues are encountered, the election will still be carried out in accordance with requirements.

With the increasing use and reliance on technology in the election processes, we believe it is important to examine current and future technology resourcing and recommend the following.

Recommendation 1 – Information Technology Support
We recommend that the City Clerk evaluates current and future need for technical support requirements, in advance and on the day of future elections.
Management Response
Accepted
Action Plan: After every election the Elections Office examines all processes and evaluates their effectiveness for future projects. A complete assessment of election technology will review all aspects of current election technology, including training, staffing levels and qualifications, deployment, and support, as well as potential new technology for the 2021 Municipal Election. An evaluation of technology testing procedures will also be completed to ensure that all technology meets rigorous verification requirements. As technology is further utilized in elections, the required skills of election workers will change as well. An examination will be conducted to ensure staffing levels and required skill sets meet the requirements of the relevant position.

The examination of potential new technology and recommendation for implementation will be completed by the end of 2020 to be implemented in the 2021 election.

Planned Implementation Date: Work currently underway. December 31, 2020.

Responsible Party: City Clerk

4.3 Voting Station Oversight

During the 2017 election, the OCA visited 121 voting stations. Our observations from these station visits suggest that oversight in those voting stations should be improved.

Pre-Initialed Ballots

The expectation is that when a voter enters a voting station, eligibility to vote is confirmed. After confirmation, the Ballot Clerk initials a ballot and provides it to the voter. Ballots should not be initialed in advance. Voting station election workers are specifically instructed of this expectation during training.

In 2017, we noted 19 voting stations where ballots were pre-initialed, including one station where approximately 200 ballots had been pre-initialed. We also observed two stations where approximately 100 ballots had been pre-initialed, and another station where the ballot clerk continued to pre-initial ballots after having been instructed not to. The number of voting stations where this occurred is considered to be high in comparison to past elections; for example, we observed pre-initialed ballots in two voting stations, during the 2013 Election. Once observed by the OCA, election workers were asked to spoil (or cancel) those ballots that were pre-initialed.

Ballot Clerks pre-initialing ballots is a recurring issue that has been observed in previous civic elections.

Importance of Secrecy in the Voting Process

Election workers responsible for setup and running of the voting stations are instructed to do so in such a way that ensures the secrecy of a person's vote throughout the voting process. Although no direct complaints were noted, we observed several instances where this secrecy could have been compromised on Election Day:

- A large number of voting stations were set up in a way that allowed people to walk behind voting booths, as other people were marking their ballots;
- Multiple instances were noted where election workers were handling spoiled ballots, or assisting voters in casting their ballot at the vote tabulator, in such a way that vote secrecy could have been compromised; and,
- Election workers in one voting station had opened the auxiliary slot on their ballot box and fed those ballots into the tabulator prior to the station being closed. This is inconsistent with documented process.

Station Close Process

After all voters in line at 8:00 PM on Election Day have had an opportunity to cast a ballot, election workers begin the process of closing the voting station. We were able to observe closing processes at nine voting stations.

As part of our observations, we noted that some locations had difficulties balancing ballots. Multiple stations also had difficulties with election workers not wanting to stay and assist with closing, which was an expectation of anyone working in voting stations.

We were informed by Edmonton Elections that there was a ballot box left behind in a voting station after closing, still containing the ballots cast that day. Once they were notified by the school that hosted the voting station, Edmonton Elections immediately sent staff to retrieve the ballot box. It was determined that two instances of human error led to the issue. First, election workers in charge of the voting station did not follow required process, which would have included moving ballots to a transfer box, and then providing them to other election workers at an accumulation site. Second, election

workers at the accumulation site should have noted that no transfer box labelled as “Used Ballots” was provided from that particular voting station.

Although we observed issues with the station closing processes, we did not observe any impact on the election results. These issues primarily relate to oversight within voting stations, and as a result we recommend the following.

Recommendation 2 – Voting Station Oversight
We recommend that the City Clerk evaluates and implements processes to improve voting station oversight, to reduce the potential for issues that were observed in the 2017 Municipal Election.
Management Response
<p>Accepted</p> <p>Action Plan:</p> <p>As a part of the 2017 Election Review, all aspects of training and hiring practices will be evaluated for future projects.</p> <p>Election procedures are created and tested to ensure that legislative requirements are met and to create an efficient voting process for electors. These procedures should never be altered by an election worker. Election workers were trained on these tested procedures, including the topics of concern identified in the Audit Report. The incidents during the election were primarily a result of station oversight error, or lack of adherence to defined procedures.</p> <p>A new training model was implemented in 2017 and is being evaluated by the branch. This evaluation will help to ensure that requirements for election workers are communicated clearly, and that reference documents are appropriate for voting opportunities.</p>

Election hiring practices are being evaluated to ensure workers meet the expected standards of a voting station position. This includes the Presiding Deputy Returning Officers, who are responsible for the oversight of a voting station.

Planned Implementation Date: December 31, 2018

Responsible Party: City Clerk

5 Conclusions

Based on our review, we conclude that the 2017 Municipal Election planning and voting were conducted in accordance with legislation, and in a manner that ensured the accuracy and auditability of the vote. We observed fewer issues in 2017 than we did in 2013, which reflects enhancements that were made to processes and systems in place.

Although we made a number of observations related to election workers not following approved processes, none of the issues impacted the outcome of any of the election races.

We thank the staff and management of the Office of the City Clerk and others who assisted us in completing this project.

Appendix 1 – Status of Recommendations from 2013

We made five recommendations in our 2013 Municipal Audit Report. Included below is a discussion of work performed to address those recommendations.

2013 Recommendation 1 – Nomination Package Requirements

The OCA recommends that the Returning Officer request a formal response from the Ministry of Municipal Affairs to support the City of Edmonton in refusing to accept incomplete nomination packages in future elections.

This recommendation was made in response to a candidate in the 2013 Election who did not comply with the requirements of the *Local Authorities Election Act* when filing nomination papers. The candidate refused to sign the nomination forms, provide personal identification, allow his candidate information to be released to the public or press, and acknowledge his willingness to serve if elected. At the time, the City Clerk sought clarification from the Ministry of Municipal Affairs, and was instructed to accept the candidate's nomination. As was discussed in our 2013 Municipal Election Audit Report², there is a risk that accepting an incomplete nomination package such as this exposes the City to financial risk, if an election race is challenged on the basis of incomplete nomination papers and the City is then required to run (and pay for) a by-election.

In June of 2014, the City Clerk sent a letter to the Minister of Municipal Affairs to seek clarification of the prior decision rendered. Although the specific issue was not directly addressed in the response, the Ministry did state that the concerns would be taken into account in an upcoming review of the *Local Authorities Election Act*. While the City did not receive the anticipated clarification, we believe that sufficient efforts were made to meet the intent of the recommendation. No issues were noted with the 2017 nomination process.

² https://www.edmonton.ca/city_government/documents/PDF/11336_2013_Municipal_Election.pdf

2013 Recommendation 2 – Logic and Accuracy Testing

The OCA recommends that the Returning Officer take steps to ensure that election staff and/or assigned contractors:

- 1. Completely and accurately document all required logic and accuracy tests, and*
- 2. Are trained to securely attach the memory card seals.*

In the lead up to the 2017 election, Edmonton Elections made changes to internal logic and accuracy testing processes that were intended to improve completion and documentation of the testing. Additionally, a different model of vote tabulating machine was used in 2017, which reduced the potential for issues with sealing memory cards due to the physical design of the machine.

2013 Recommendation 3 – Worker Comprehension

The OCA recommends that the Returning Officer implement methods to evaluate comprehension during training to improve the likelihood that voting station personnel will understand the key elements of their responsibilities on Election Day.

For the 2017 election, Edmonton Elections implemented a blended training model. This training required election workers to participate in online training related to general duties of their position, and to pass a quiz to show that they understood those duties. After this was complete, election workers would also participate in further facilitator-led training to focus on key Election Day activities, as has been done for prior elections.

2013 Recommendation 4 – Voting Station Logistics

The OCA recommends that the Returning Officer:

- 1. Conduct a full review of voting station locations used in 2013 and consider alternative locations or contingency plans for those locations that presented logistics challenges.*
- 2. Ensure that voting stations that are “non-standard” receive specific supplies related to their locations/layouts and that appropriate contingency plans are made in advance of Election Day.*

Prior to deciding on voting station locations for 2017, the Edmonton Elections performed a detailed assessment of each of the 2013 voting station locations to assess the logistical or supply-related challenges. They also undertook a public engagement process to better understand positive voting experiences, as well as opportunities and recommendations to enhance them (this engagement process is further discussed under Section 4.1 of this report).

Based on this work, Edmonton Elections put location selection criteria into place that were intended to reduce the number of locations that could impose logistical challenges, such as limited parking or staircases between the entrance and the voting station. They also updated supply lists for voting stations, based on size, location and specific circumstances.

2013 Recommendation 5 – Ballot Design

The OCA recommends that the Returning Officer ensure that election ballot designs do not introduce challenges for voters with impairments.

Edmonton Elections worked with the suppliers of ballots and vote tabulating machines to try and reduce challenges that some voters faced in casting a ballot in the 2013 election.

In working with the suppliers it was determined that there are certain inherent restrictions on changing the ballot font and design, while still including all required races (Mayor,

Councillor and School Trustee). In order to try to address the 2013 issues, changes were made to the ballot design to make it easier for voters with vision impairments to cast a ballot. Additionally, each voting station was supplied with magnifying devices that were available in cases where a voter expressed concern over readability of the ballot.

Conclusion on Recommendations from 2013

Although none of the issues raised in the 2013 audit report impacted the outcome of any of the election races, we made five recommendations to improve processes and reduce risks in future elections. Edmonton Elections made sound and appropriate efforts to address each of those recommendations.