Electoral Management Reference Model

A description of the business of delivering elections in Canada

Prepared by Elections BC
April 9, 2010
Version 1.0

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GLOSSARY

Absentee ballot – A ballot that is required to be placed in a certification envelope prior to depositing in the ballot box. For instance, ballots collected by mobile teams, mail-in ballots and ballots from absentee opportunities at polling places. Also known as special ballots.

Accuracy – A point-in-time measure of how correct the information in the register of electors is.

Address register – A database or list of all known residential and non-residential addresses in the jurisdiction.

Advance polling division – A polling division created by combining multiple regular polling divisions into a single, larger polling division.

Auditor – An individual or firm appointed to audit financial reports.

Business process – A grouping of related activities that use one or more inputs to produce a specific service or product (outputs) that adds value to the business.

Candidate – An individual who has completed the nomination process and has been issued a certificate of candidacy by the electoral agency.

Candidate ballot – A ballot that displays the electoral district name, date of Voting Day, a list of the names of the candidates for that electoral district, and their political affiliations, if any. Also called an ordinary ballot.

CERL – The Canadian Election Resource Library (CERL) is an on-line source for electoral forms, legislation, manuals, policies and reports produced by electoral agencies across the country. It also provides a forum for sharing ideas and asking questions. CERL is managed by Elections Manitoba.

Chief Electoral Officer – The highest ranking election official in a jurisdiction, responsible for all aspects of electoral administration.

Civic-style address – An address that shows the apartment number, building number, street name, street direction, city, and province. A civic address label may apply to any type of property (e.g., residential, commercial, industrial, etc.).

Compliance agreement – A contract between the Integrity Commissioner of Nunavut and a person who has or is about to commit an offence under the *Nunavut Elections Act*. Compliance agreements are published.

Confirm – A registration transaction that confirms the data held in an existing elector record. For example, information from an online registration system that exactly matches an existing elector record would be called a confirm transaction.

Continuous list – See permanent register.

Contribution – An amount of money or the value of any property or services provided without compensation by way of donation, advance, deposit, discount or otherwise to a political entity during the period under which financing rules apply (e.g., the campaign period).

Coverage – A point-in-time estimate of how complete the register of electors is. Coverage is measured as the proportion of eligible electors who are listed in the register of electors.

Currency – A point-in-time estimate of how up-to-date the register of electors is. Currency is measured as the proportion of all registered electors who are listed on the register at their correct address. See also net currency.

Deputy Returning Officer (DRO)– The election official who works as a team with a Poll Clerk to administer voting and counting. The DRO is responsible for the ballots and the count of the votes administered by the team. Also called a Voting Officer.

Dwelling unit – The physical unit within which individuals reside. There may be one unit at a physical address (e.g., single-family dwelling), or multiple units (e.g., apartment building).

Election period – The period starting on the day the writ is issued and ending on the day the writ is returned.

Electors – Electors are people who meet the qualifications to vote in a given jurisdiction. Also known as "eligible electors".

Electoral agency – The office responsible for electoral administration in a jurisdiction.

Electoral district (ED) – For electoral purposes, every jurisdiction is divided into smaller geographic units, each of which elects one member to the legislative body. Electoral districts may also be called constituencies, electoral divisions, or ridings.

Electoral District (ED) Association – An organization formed for an electoral district as the local organization of a registered political party or as the local organization to support an individual who is an independent elected member for the electoral district.

Electronic voting – The use of an electronic voting system or systems to facilitate a formalized stage of the voting process, including but not limited to: voter authentication, voter strike-off, the marking of a ballot, and tabulation.

Eligible electors – Eligible electors are people who meet the qualifications to vote in a given jurisdiction.

Empty address – A dwelling unit in the address register that has no associated registered elector in the register of electors.

EMRM – With a focus on the federal, provincial and territorial levels, the Electoral Management Reference Model (EMRM) provides a common framework and shared language for describing the business of electoral administration in Canada.

Enumeration – An intensive outreach campaign to promote voter registration in the lead up to an election. Enumerations may take the form of residence-to-residence visitation, or they may be conducted by mail or phone. Enumerations are often supported by advertising campaigns. Enumerations may include all eligible electors or they may focus on sub-sets of the elector population or the electoral district (targeted enumeration).

Events – Large-scale, legislated activities that have a definite beginning and end that distinguishes them from on-going operations. Events include by-elections, general elections, enumerations, boundary redistributions, and recall and initiative petitions.

Expenses – The value of property or services used within a period defined by legislation by or on behalf of a registered political entity to promote or oppose, directly or indirectly a registered political party, election of a candidate, or a particular outcome in a referendum, recall or initiative.

Failover – The capability to switch over automatically to a redundant or standby computer server, system, or network upon the failure of the previously active application, server, system, or network.

Final list – The final list is the list of electors that reflects all of the registered electors at the conclusion of a given election or referendum, including registrations received in conjunction with voting. The final list is called the scrubbed list in B.C.

Financial Agent – An individual appointed by an organization or individual to administer their finances in accordance with electoral legislation.

Internet Voting – The use the Internet to transmit and record a vote cast by an elector.

Leadership Contestant – An individual seeking the leadership of a registered political party.

List of electors – A list of registered electors extracted from the register of electors. Lists are produced at different points in the business cycle and in different sort orders to serve different purposes.

Live ballot – A ballot that is not required to be in a certification envelope. Live ballots are deposited directly into the ballot box by the elector or the Deputy Returning Officer.

National Register of Electors – The National Register of Electors (NROE) is Canada's federal register of electors. It was created and is maintained by Elections Canada.

Net currency – A point-in-time estimate of how up-to-date and complete the register of electors is. Net currency is measured as the proportion of all eligible electors who are listed on the register at their current address. See also currency and coverage.

New registration – A register of electors transaction that results in the addition of a new elector to the register.

Official Agent – A person appointed by a candidate to serve as their representative during an election. A person can be appointed as both the financial agent and the official agent of the same candidate. Used in B.C.

Official list – See revised list.

On-demand event – An unscheduled electoral event, such as a by-election or general election that is not triggered by a fixed date.

Over-coverage – A situation that exists when coverage equals more than 100 percent because the number of registered electors exceeds the number of eligible electors in a particular geographical area or demographic sub-set of electors.

Permanent register – A register of electors that is maintained and updated throughout the business cycle. A permanent register is also called a continuous list.

Physical address – A point on the ground where a residential or non-residential building exists. There may be one or more dwelling units where individuals reside associated with a single physical address.

Provided address – An address provided for the purposes of elector registration by an elector or a secondary source. Provided addresses may take many forms, and will not always conform to an electoral agency's address register. For example, electors may only provide a mailing address. The goal is to collect enough information to be able to geo-code the address and communicate with the elector.

Political entities – Individuals or organizations that participate in events by: running for office, promoting the election of particular candidates, and/or raising awareness about issues of public concern and trying to influence public opinion.

Political party – An organization that has as a primary purpose the fielding of candidates for election to the Parliament or provincial or territorial Legislature.

Poll Clerk (PC) – The election official who works as part of a team with a Deputy Returning Officer to administer voting and counting. The PC is responsible for maintaining the voting book and marking electors off the list as they vote. Also called a Voting Clerk.

Polling division (PD) – Each electoral district is divided into smaller geographic areas, called polling divisions, each of which is organized to take the votes of the electors who live within its boundaries. Polling division boundaries are created by the electoral agency.

Polling place – A place, usually part of a building, where electors attend to vote (e.g., a school gymnasium, a meeting room in a town hall or recreation centre, etc.).

Polling station – Within a polling place, a polling station is established to serve electors from a polling division. The election officials at a polling station use a list of electors for the corresponding polling division and mark or cross out electors' names as they vote.

Preliminary list – The list of electors that reflects all of the registered electors as of the day the writ is issued.

Protected elector – An elector who formally requests to have their information suppressed from printed lists of electors due to concern for their personal safety.

Register of electors – The register of electors is the database or spreadsheet that stores elector registration information and from which lists of electors are created.

Registered electors – Registered electors are electors who meet the qualifications to vote in a given jurisdiction and who have completed the elector registration process in that jurisdiction.

Remove – A register of electors transaction that results either in the removal of an elector record or a change in the status of the elector record to inactive. For instance, an elector who is deceased would be removed from the register and an elector that has moved out of the jurisdiction might be set to inactive or removed from the database entirely.

Returning Officer – The election official responsible for the administration of electoral events in an electoral district. Called District Electoral Officer in B.C.

Revised list – The revised list reflects all of the registrations received up to the beginning of the closed period for elector registration. This list is used in the administration of voting during advance voting and on Voting Day. It is also called the official list.

Scrubbed list – Scrubbed list is the term used to describe the final list in B.C. See final list for definition.

Site-based polling division – A facility (e.g., long-term care facility) that has been defined as a polling division so that a separate voting book can be created for the residents and voting can be delivered on-site by a mobile team. Also called a special polling division.

Special ballot – See absentee ballot.

Special polling division – See site-based polling division.

Split voting book – A sorted voting book that has been divided into roughly equal sections to be administered at separate polling stations. Split voting books are produced when a polling division contains more registered electors than permitted by legislation.

Street index – A document used in the administration of voting to determine the correct polling division and electoral district for an elector's street address. The street index is a table that relates address ranges of street segments to polling divisions and electoral districts.

Temporary list – An extract of the register of electors that is created specifically for use in an electoral event and not maintained during the inter-event phase.

Third-party advertising sponsor – Individuals or groups – independent from candidates, registered political parties and ED associations – who spend, or intend to spend, money during

the campaign on election or referendum advertising to promote or oppose a registered political party, a candidate, or a particular referendum outcome. Third parties include election and referendum advertising sponsors and yes/no groups in referenda.

Transfers – Non-reciprocal movements of money, other property or services within a political party organization (i.e., among candidates, leadership contestants, ED associations and the registered political party with which they are affiliated).

Update – A registration transaction that involves updating information stored in an existing elector record in the register of electors. For example, a change of address on an existing elector record would be called an update transaction.

Voting Day – The main day designated for voting during an election or referendum.

Write-in ballot – A ballot used in voting for a candidate in an election where the elector writes the name of the candidate or the registered political party they wish to vote for in a large blank space on the ballot. Used in certain types of absentee voting in B.C.

Yes/No Group – Official groups established by legislation to support or oppose a referendum choice.

1.0 INTRODUCTION

> "Election management is an essential part of any democratic process and has existed in some manner for more than twenty-five hundred years."[1]

Elections are a fundamental part of democracy in Canada and throughout the world. Although Canada is a relatively young country, electoral administration in this country is governed by sophisticated and detailed legislation that aims to protect the principles of democracy and the rights of electors. While traditional approaches to election delivery have served Canada well for over one hundred years, pressures to keep pace with the changes of modern society cannot be ignored. Questions about when electronic voting will be an option in federal and provincial elections are being asked with increasing frequency.

To electors it may appear that little has changed in the mechanics of election delivery. At the federal, provincial and territorial levels, electors still attend a polling place to vote, mark a paper ballot and then deposit it in a ballot box for manual counting by election officials. Behind the scenes, however, the country's electoral agencies have modernized many of their business processes. From online elector registration and election results, to extranets serving up-to-date information to Returning Officers in the field, electoral agencies have been making changes to improve the quality of service to electors and their overall efficiency. Many of the changes to electoral administration over the last decade have involved the introduction of technology to formerly paper or manual processes and the same is likely to be true over the next decade.

As always, electoral administrators will proceed with caution when they introduce change. Elections are a business of details and every detail is important to ensuring the integrity of the overall process. Electoral administrators need to deliver credible elections with results that are widely accepted in order to maintain the ongoing trust of the electorate. Change in one part of the process can have unintended consequences in another and therefore it must occur at a measured pace, allowing time for careful consideration and testing.

Electoral administrators in Canada will work through the inevitable changes together. While legislative details vary from jurisdiction to jurisdiction, electoral agencies across Canada are essentially in the same business. They share requirements, for instance, to develop a register of electors, to determine the electoral district in which registered electors reside, to assign electors to polling divisions, to register candidates, identify polling places, to manage a geographically dispersed workforce of election officials, etc. Canada's electoral agencies have a well established culture of sharing best practices in all areas of electoral administration. Leaders in this industry know that there is enough common ground between jurisdictions that it makes good practical sense to collaborate and share information to improve their own results, and also to better leverage partnerships.

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[1] ACE (2009). Overview of Electoral Management. Retrieved June 22, 2009, from ACE: The Electoral Knowledge Network website: http://aceproject.org/ace-en/topics/em/em10

1.1 The Electoral Management Reference Model (EMRM)

A solid and shared understanding of the business of elections as it exists today in Canada provides a foundation upon which electoral agencies can move forward in a collaborative manner. With a focus on the federal, provincial and territorial levels, the Electoral Management Reference Model (EMRM) provides a common framework and shared language for describing the business of electoral administration in Canada. It is a tool to facilitate collaboration and discussion among Canada's electoral administrators, and it may also be used by a variety of audiences that wish to better understand the business of election administration.

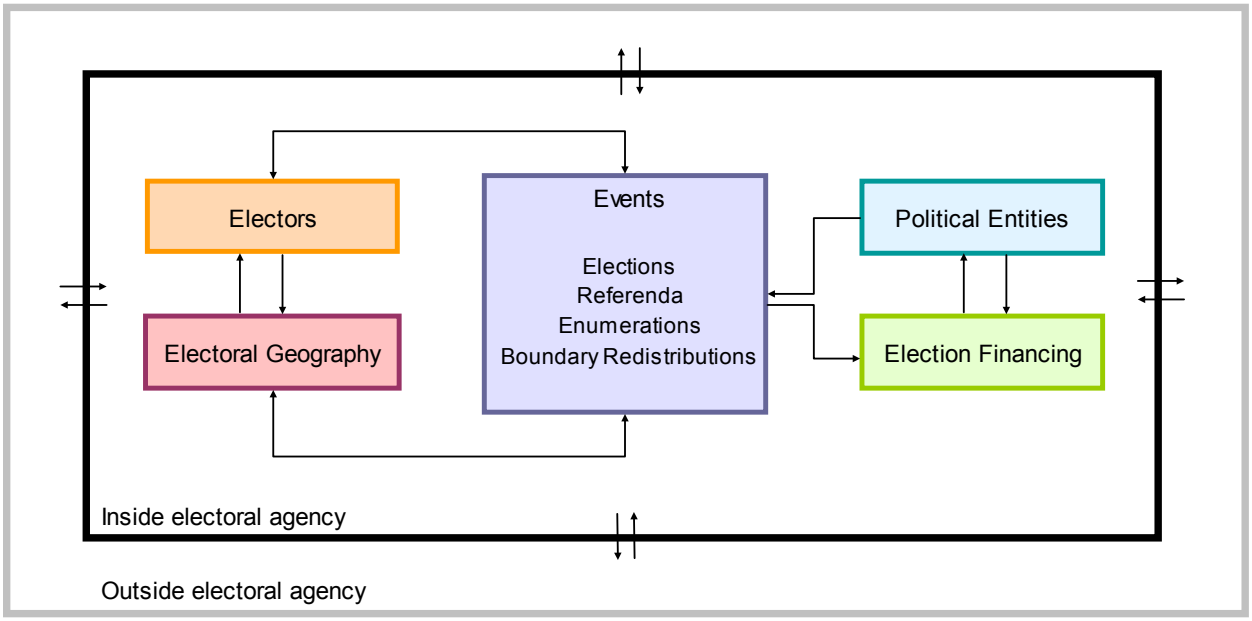
In order to get a better sense of where change is most likely to occur, the EMRM includes a discussion of the issues and challenges currently being addressed by electoral managers and the expected challenges over the next ten years. As well, because the business cycle is such a key driver of work intensity in electoral administration, the business processes are discussed in the context of the business cycle.

The EMRM contributes to an enhanced understanding of the business of electoral administration in Canada by:

- breaking down the business of delivering elections into five major business areas,
- showing how these business areas interact with each other within the electoral agency and with external stakeholders,
- indicating how the nature and intensity of the business changes over the business cycle,
- identifying the current issues affecting each business area,
- looking at how each business area may change over the next 10 years, and
- assessing the challenges and implications of the above for the application of technology to the business.

Figure 1 provides a simplified or high-level view of how the model dissects the business of elections into five business areas, each of which is comprised of a logical grouping of business processes. Through a series of inputs and outputs, the business areas interact with each other within the electoral agency and with external stakeholders.

Figure 1 The EMRM: A High-Level View



The EMRM acknowledges that different approaches are appropriate in different contexts. Variations in local legislation and/or customs are often at the root of different approaches to a given business process. By providing examples of good business practices from around the country, it is hoped that the document will facilitate reflection on local practices and consideration of improvements where appropriate. Note that examples regarding legislation and jurisdiction-specific practices are accurate at the time of writing, but may become dated unless the EMRM is reviewed and updated on a regular basis.

1.2 Future Elaboration

The development of a model such as this is an exercise with no "right" answer. The aim is to describe the business in a way that applies to as many jurisdictions as possible, without being so general that the document is not useful. In order to achieve this balance, the current version of the model, prepared by Elections BC, is intended as a first iteration to be reviewed and improved upon through input from the broader electoral community. When a model that is as close to the "right" answer as possible is achieved, the electoral community can use it for its main purpose: as a foundation for the exploration and discussion of how to move forward with change.

Past collaborations within the electoral community in Canada have produced other important pieces of work that lay a foundation for shared information technology projects. The 2006 Common Data Model defines data modelling standards and the data model elements for several data categories: Electors, Addresses, Events, Candidates, Sites, Results, Electoral Finance and Electoral Geography. Reference is made to the Common Data Model when discussing the specific data elements that are captured and maintained by electoral agencies. The 2009 Electoral System Reference Model (ESRM), prepared by Elections BC, provides detailed specifications for the application of technology to all aspects of the election business.

It is expected that the Technology Committee, which was established to maintain the Common Data Model, will also manage the elaboration of the EMRM.

1.3 Intended Audiences

The EMRM will serve a number of different purposes for different audiences. It is intended for use by the electoral community through the Technology Committee as a shared language and reference document that serves as a jumping off point for delving deeper into the application of technology to the electoral business, such as Internet voting or "vote anywhere" concepts. The model could also serve as a starting point for electoral agencies to develop content specific to their own jurisdictions and their particular challenges and opportunities.

The document provides an excellent overview of the business of delivering elections in Canada, the issues being encountered today, and those that are anticipated over the next decade. In this regard, it could serve as a helpful component of an orientation package for new staff. Its emphasis on the relationships between business areas and external stakeholders will be helpful to new managers in attaining a more complete understanding of how their particular piece of the business fits into the larger context.

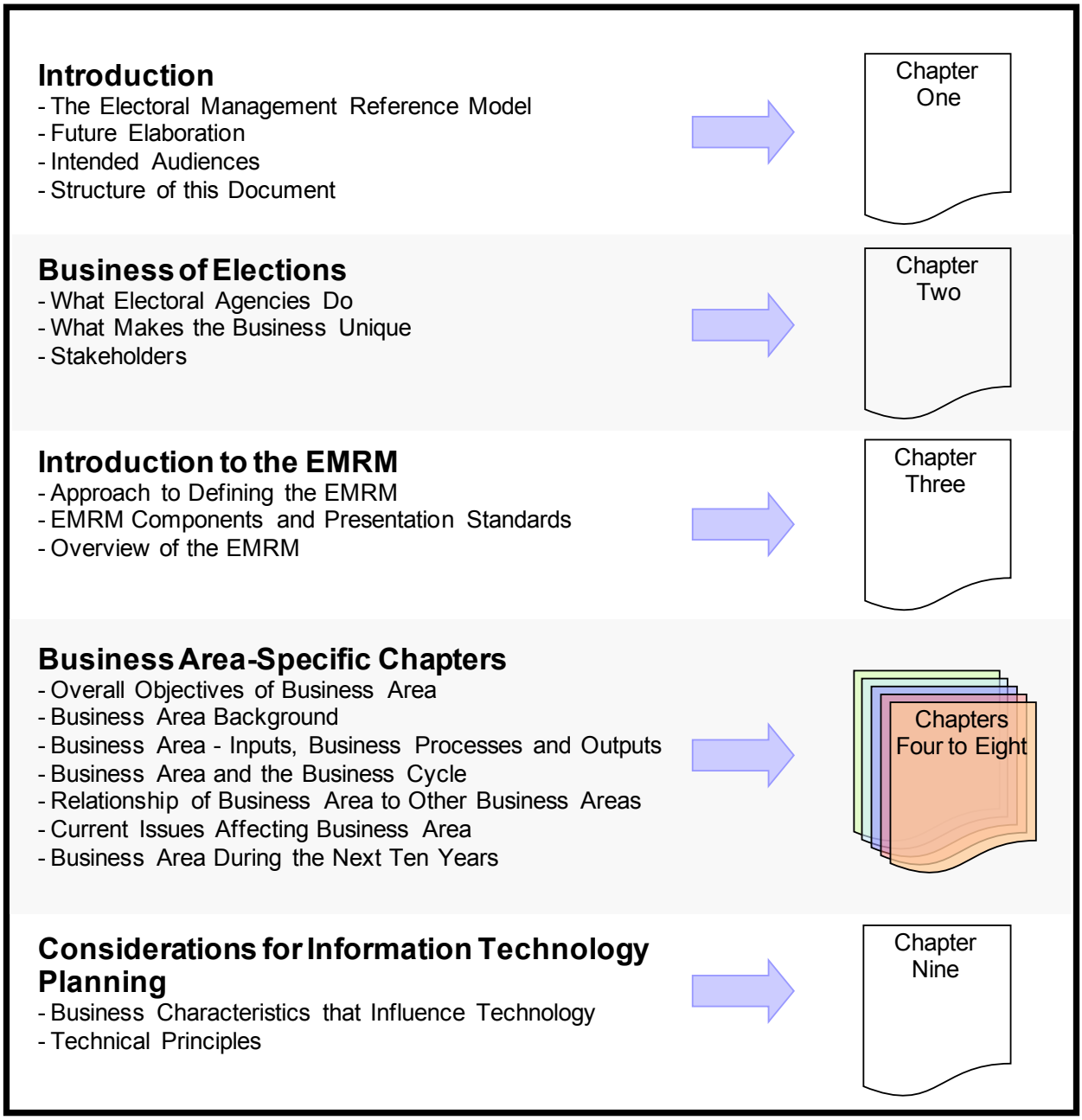
Finally, the EMRM is intended to assist the IT vendor community to better understand and appreciate the complexity of the business of delivering elections. The EMRM, or components of it, could be included as a background document in requests for proposals.

1.4 Structure of the Document

Throughout the EMRM, effort has been made to avoid the use of technical terms that are not widely understood. A detailed glossary is included at the beginning of this document to facilitate a shared understanding of terminology. For readers accessing the document electronically, the first instance of a defined term within each chapter is shown in blue, underlined text and is linked to its definition in the glossary. The definition can also be obtained in the electronic version of the document by hovering the mouse over the blue, underlined text. The first instance of a defined term in each chapter also appears in blue, underlined text in printed versions, signalling to the reader that the term can be found in the Glossary.

This document is divided into nine main chapters, as illustrated in Figure 2. The next chapter (Chapter 2), provides an overview of the business of elections, describes the key characteristics that make it unique, and its external stakeholders. Chapter 3 provides an overview of the EMRM, including the standards used when describing and illustrating EMRM components. The following five chapters each deal in detail with a specific business area. The final chapter summarizes the IT implications arising from the business requirements and current and future challenges described in the preceding chapters. It also links back to the detailed specifications developed in the Electoral System Reference Model (ESRM).

Figure 2 Roadmap to this Document



2.0 BUSINESS OF ELECTIONS

2.1 What Electoral Agencies Do

The business of elections centres around the delivery of events, including elections, referenda, by-elections, enumerations, boundary redistributions, and recall and initiative. In order to deliver events, electoral agencies must also establish a business infrastructure to support standard business functions, such as staff recruitment and training, payroll, facilities management, information technology, etc. However, event delivery is the heart of what electoral agencies do and the standard business functions are a means to support the achievement of this end.

Events are large-scale, legislated activities with a definite beginning and end that distinguishes them from the on-going operations of an electoral agency. Events include by-elections, general elections, enumerations, boundary redistributions and recall and initiative petitions. No two events are the same. In addition to changes resulting from continuous refinement of procedures, there are often amendments to electoral law between events that necessitate changes to processes and procedures from one event to the next.

While legislation and business practices vary by jurisdiction, the area of overlap in business requirements across jurisdictions far exceeds the gaps. Listed below are some of business functions that all electoral agencies perform to varying degrees:

- verify voter eligibility;
- register eligible electors;
- ensure that electoral district boundaries are accurately reflected in computer systems and maps;
- create written descriptions and maps that describe and show electoral district boundaries;
- assign electors to the correct electoral district and polling division based on their physical address;
- register political entities, which may include political parties, candidates, electoral district associations, advertising sponsors and yes/no groups;
- recruit, train and pay temporary election workers;
- establish temporary field offices and polling places;
- administer voting at general elections, by-elections, and referenda;
- consider ballots and count votes;
- create, procure, store and distribute event materials;
- educate electors;
- develop educational materials for school civics programs;
- oversee campaign financing;

- inform and monitor the media;
- ensure compliance with local electoral law and enforce the law when necessary; and
- cooperate with other levels of government and other electoral agencies to share information and resources in an effort to continuously improve service to electors.

In addition to this list, there are functions that some agencies perform and others do not. For instance, in B.C., the Chief Electoral Officer is also responsible for the administration of recall and initiative petitions and initiative votes. Some jurisdictions create a temporary list through enumeration for use in a specific event, while others maintain a permanent register, which they may update through enumeration before administering an event.

There are different models for the administration of elections across Canada. In some provincial/territorial jurisdictions, the electoral agency is responsible for local government, health authority, and school board elections and acts in an advisory capacity with other groups, in addition to administering provincial/territorial events. In other jurisdictions, agencies are responsible for elections for one level of government.

Some examples of different models are as follows:

- in B.C., Alberta, Manitoba and Saskatchewan, the electoral agency is responsible for provincial-level events only.
- Elections New Brunswick is responsible for local government, education council or school board, and provincial elections.
- Elections Québec is responsible for provincial-level events, and plays an advisory and support role in municipal and school board elections.
- the Elections Nunavut CEO acts as the Elections Commissioner for the Nunavut Tunggavik Incorporated elections, as well as being responsible for Nunavut territorial events.

2.2 What Makes the Business Unique?

"An election or direct democracy poll is often one of the largest single activities that is ever organized in a country. It is a very complex administrative task, implemented in a politically charged atmosphere."[2]

In terms of the scale and temporary nature of operations, the political environment in which they are conducted, the level of attention to legislative detail required, and the consequences of failure, the business of delivering elections is like no other. The purpose of this section is to review the characteristics that define and set the election business apart from other businesses.

[2] ACE (2009). Overview of Electoral Management. Retrieved June 22, 2009, from ACE: The Electoral Knowledge Network website: http://aceproject.org/ace-en/topics/em/em10

2.2.1 Scale

General elections are enormous undertakings. A few statistics from a recent provincial election in B.C. illustrate this point:

- maps and information materials were created to place an estimated 2,000,000 physical addresses into the correct electoral district.
- an estimated 1,500 general polling places, 200 advance locations and 90 election field offices were rented and arranged to receive electors.
- 80 tons of election materials were shipped throughout the province, including the most remote regions of the province.
- 38,000 temporary staff and election officials were recruited and trained.

There are many businesses that operate at a large scale. What is unique about the business of elections is the extent to which electoral agencies must expand and contract their operations over the course of a business cycle. When it is time to deliver an event, it is not uncommon for electoral agencies to increase their labour force by a factor of over 700 times and to exceed the employment of the jurisdiction's entire public service on Voting Day. This expansion and contraction means that parallel business processes must be developed to deal with what, on the surface, appears the same function. For instance, the business process required to pay permanent staff on an on-going basis may be different from the process required to pay the veritable army of temporary workers and election officials who are employed by the agency for a short period of time.

The business of elections is also unique in terms of its geographic scale. Voting must be accessible and, therefore, voting opportunities are made available throughout the jurisdiction. Most Canadian jurisdictions consist of a mixture of highly urbanized and very remote regions. Electoral agencies overcome accessibility and infrastructure issues to ensure that access to voting opportunities is relatively even across the jurisdiction.

2.2.2 Business cycle

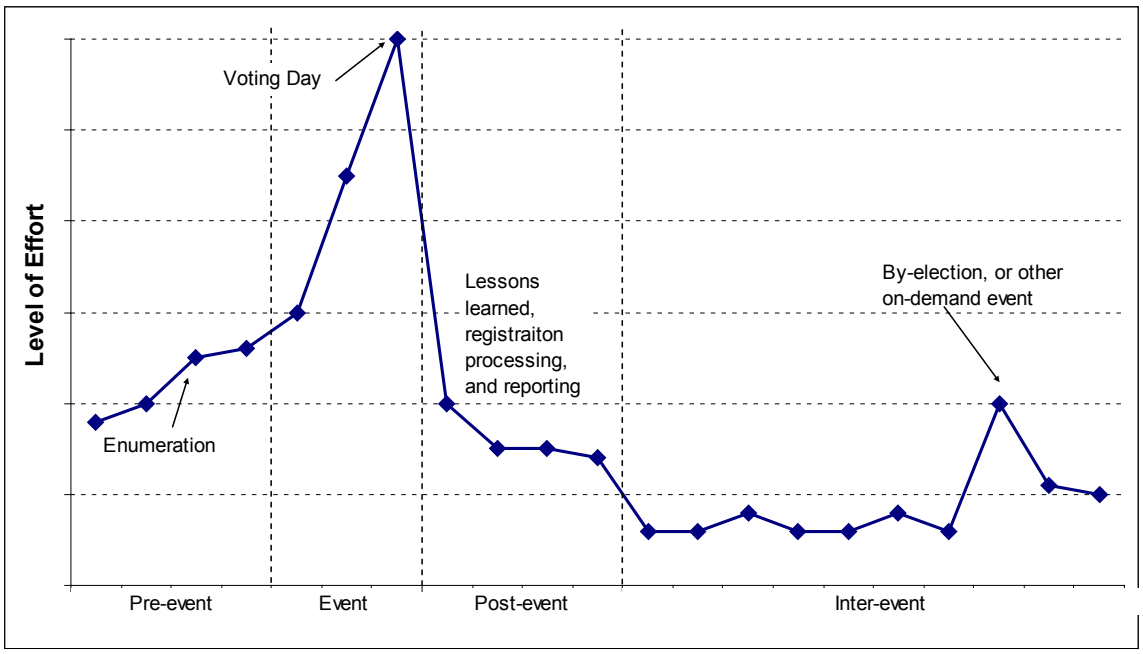
The expansion and contraction of activity that characterizes the business of elections is driven by the business cycle. The business cycle of an electoral agency is usually approximately four years in duration and can be roughly divided into four phases, as defined below:

1) **Pre-event** – the phase leading up to a general election when enumerations or targeted revisions are conducted, boundary redistributions are concluded, computer systems changes are finalized and tested, forms and manuals are finalized, printed and packed with election supplies for shipping, Returning Officers are trained, and communications campaigns to raise awareness about the election and enumeration get underway.
2) **Event** – the event phase is defined by legislation and begins when the writs of election are issued and ends when they are returned. The length of the event phase varies across jurisdictions (e.g., 50 days in B.C., 36 days at the federal level). This is the phase of most intense activity in the business cycle.
3) **Post-event** – following the return of the writs of election, effort levels remain relatively high as election materials are returned from field offices and audited, disposed of, or stored,

elector registrations from the polls may be processed, lessons learned are documented, campaign financing reports are received and reviewed, and statutory event reports are prepared and published.

4) **Inter-event** – this is a phase of approximately two years between the end of the post-event and the start of the next pre-event phase. During this time procedures and forms are reviewed in light of legislative changes and lessons learned from the past event. Small increases in activity occur on an annual basis if the register of electors is updated with secondary sources and annual financing reports are reviewed. Most jurisdictions deliver at least one on-demand event during the inter-event phase, such as a by-election, boundary redistribution, or a recall or initiative petition (B.C. only). Other jurisdictions may also deliver scheduled events, such as local or school board elections during this phase. The inter-event phase is the lowest-risk window in the business cycle for changes to computer systems.

Figure 3 Variation in Level of Effort, By Business Cycle Phase



For some jurisdictions in Canada the length of the business cycle is set by legislation that defines fixed election dates for general elections (Canada, British Columbia, Manitoba, Ontario, New Brunswick, and Newfoundland and Labrador). For jurisdictions that do not have fixed election dates, the length of the business cycle is likely to be between three and the maximum five years. In minority government situations, whether the jurisdiction has a fixed election date or not, the length of the business cycle is uncertain. One of the consequences of this uncertainty is that electoral agencies do not benefit from the inter-event phase, which is the best time for improving business practices and developing new computer systems. Instead, they must maintain the heightened activity typically associated with the pre-event phase so that they are ready to administer a general election if and when the call comes.

2.2.3 Legislative environment

The election of members to a jurisdiction's Legislative Assembly or Parliament is conducted within a framework of electoral law that is unique to each jurisdiction. Electoral law is very prescriptive and covers all aspects of electoral administration from how Returning Officers are recruited and appointed, to the dates, times and types of voting and counting. The scope of electoral events and the approach taken to their delivery is, to a very large degree, shaped by legislative constraints.

The legislation governing elections in Canada is remarkable both for its similarities across jurisdictions and for its differences.[3] Much of the variation in business practices across electoral agencies is rooted in differences in local electoral legislation. For instance, the length of time allowed by law between the close of registration and the start of voting determines whether it is feasible to process registrations at agency headquarters, or whether this function should be deployed to the field.

Innovation in this industry often goes hand-in-hand with legislative change. Electoral agencies have the opportunity to shape electoral law by providing recommendations for legislative change at the conclusion of each electoral event. Business process innovation is often delayed until enabling legislation is passed. For instance, until recently, electoral law in B.C. permitted Elections BC to accept updates to existing elector registrations by telephone, but not new elector registrations. Elections BC was not able to offer registration by telephone until the province's *Election Act* was amended in 2008. The reliance on legislative change to support many business improvements slows the pace of change in the election business, but also helps to ensure that the full impact of a change on the integrity of the overall electoral process is considered.

2.2.4 Independent office

Fairness, independence, transparency and non-partisanship are cornerstones of the way electoral agencies conduct their business. It is important that any body that administers elections is independent of political influence. In Canada, the independence of the electoral agency is embedded in the electoral law of the jurisdiction. In all Canadian jurisdictions, a Chief Electoral Officer is responsible for electoral administration, including enforcing fairness and impartiality on the part of election officials and ensuring compliance with the legislation governing elections.

The process for appointing Chief Electoral Officers and their reporting structure is designed to ensure that electoral administration is completely independent of government and political parties. Chief Electoral Officers in Canada do not report to the Cabinet, the Prime Minister, or Premier, but instead to the House of Commons, National Assembly, or the Legislative Assembly through the Speaker. To further underscore the non-partisan nature of the Office, local legislation in many Canadian jurisdictions prohibits Chief Electoral Officers and sometimes their assistants or deputies, and Returning Officers as well, from voting in electoral events administered by their own office.[4]

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[3] For a comparison of electoral legislation across Canadian jurisdictions, see Elections Canada. (2009). *Compendium of Election Administration in Canada: A Comparative Overview.* Ottawa: Elections Canada.

[4] Chief Electoral Officers can vote in the elections they administer in only four of Canada's 14 jurisdictions: Newfoundland and Labrador, Quebec, Alberta and Nunavut (Elections Canada, 2009).

Returning Officers are appointed by the Governor or Lieutenant Governor in Council in seven Canadian jurisdictions (Alberta, Ontario, New Brunswick, Nova Scotia, Prince Edward Island, Newfoundland and Labrador, and Yukon). Chief Electoral Officers are responsible for the selection and appointment of Returning Officers in all other jurisdictions in Canada.

2.2.5 Consequences of failure

The production of a high quality product or service is important to any business. Depending on the nature of the business in question, the consequences of a failure to achieve a particular quality standard can range from a decline in future sales to a life or death situation. In the case of elections, world history has shown time and again that a lack of public confidence in the outcome can lead to a challenged (i.e., controverted) election, civil unrest and political uncertainty or limbo. Since 1949 in Canada, the elections of five members to the federal House of Commons have been declared void on grounds that a portion of the ballots were unlawfully cast.[5]

Electoral agencies in Canada are committed to delivering free and fair elections. A reality of electoral administration is that elections are delivered in the field by temporary workers, many of whom are performing their duties for a single day. Given the consequences of failure and the need for a very high quality product, electoral agencies must continuously improve in the area of ensuring that temporary workers follow procedures to the letter and in accordance with a legislated schedule.

2.2.6 Spirit of sharing

Electoral agencies in Canada cover a broad range in terms of human and capital resources and have a long history of sharing best practices. In 1974, the Chief Electoral Officers of each jurisdiction began meeting annually at the Conference of Canadian Election Officials to collaborate on approaches to shared challenges. In 2004, Elections Manitoba launched the Canadian Election Resource Library (CERL) to facilitate this collaboration by providing an on-line electronic forum for the sharing of ideas, questions, and experiences through a message board, as well as a shared location for posting documents.

As the importance of technology in electoral administration has grown over the years, electoral leaders across the country have recognized that collaboration in the area of technology has great potential to yield economies for the electoral community. At the 2004 Conference of Canadian Election Officials held in Toronto, Harry Neufeld, CEO of Elections BC, presented a white paper that proposed the establishment of a formal Electoral Technology Accord (ETA). The ETA identified specific initiatives, such as adopting common standards for describing business areas, recommending a management / communication methodology, and identifying priorities for further work. The white paper also established the principle that participation in any aspect of the ETA would be optional based on a jurisdiction's needs, abilities, and return on investment at the time – but the findings would be shared with all jurisdictions. The premise of the ETA was that it was in everyone's interest to work together toward the development of core electoral

[5] Marleau, R. and Camille Montpetit (2000). *The House of Commons and Its Members*. Retrieved June 22, 2009, from About House of Commons Procedure and Practice Online website: http://www2.parl.gc.ca/MarleauMontpetit/DocumentViewer.aspx?DocId=1001&Sec=Ch001&Seq=1&Lang=E

concepts that promote the ability to share and re-purpose systems among jurisdictions with similar needs and interests.

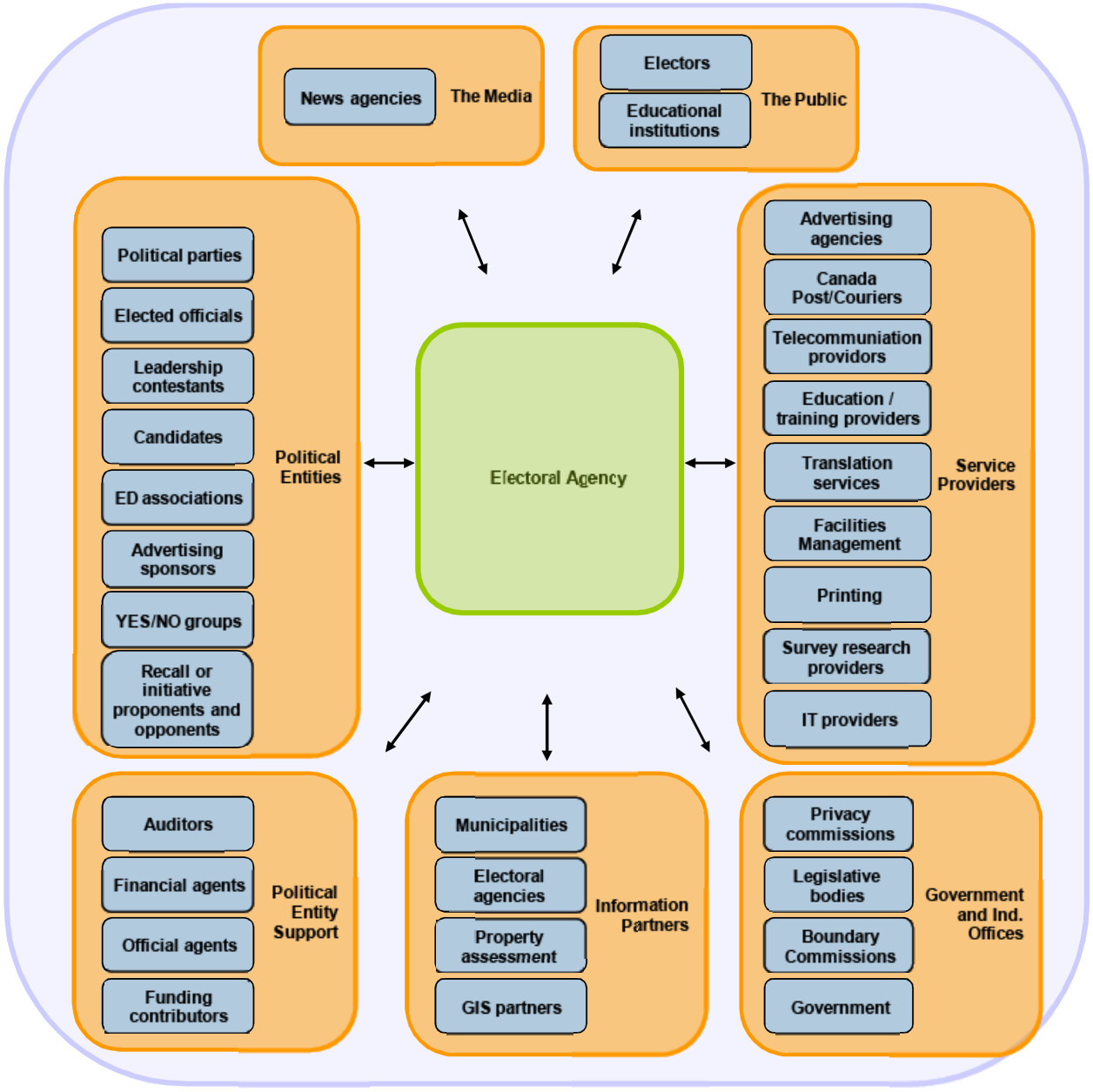
The white paper was accepted and adopted by the chief electoral officers in November 2004 and a working group, with a technology representative from each participating jurisdiction, was established. An intensive period of collaboration followed and this culminated in the development of a common base from which shared development of systems could begin to take place. In June 2006, the ETA's Working Group published a report outlining the elements of a Common Data Model for electoral information systems. At the July 2007 Conference of Canadian Election Officials, the CEOs agreed that the ETA had achieved its objectives and the ETA was concluded. A Technology Committee was established at that time to maintain the Common Data Model and continue the valuable collaboration initiated by the ETA.

2.3 Stakeholders

In the course of delivering their mandates, electoral agencies interact with a wide range of external stakeholders. Figure 4 presents seven broad groupings of external stakeholders. In all cases, the flow of information is back and forth between the stakeholder groups and the agency. For instance, while electors and political entities are the two main recipients of electoral agency services, they also provide information to the agency in the form of elector registration information, financing reports, deregistration applications, etc. Electoral agencies depend on an array of service providers for specialized services required, often on a temporary basis, during an event.

The quality of interactions with political entities and electors is particularly important to ensuring free and fair elections. Electoral agencies must ensure that every political entity and elector is treated equally and fairly. The mass media plays an important role in assisting electoral agencies to ensure that complete and accurate information is accessible to the electorate.

Figure 4 Electoral Agency Stakeholders



3.0 INTRODUCTION TO THE EMRM

3.1 Approach to Defining the EMRM

The approach to defining the business of elections involves identifying logical groupings of business processes and bundling them into business areas. Business areas and the business processes within them are linked to each other and to external stakeholders through the inputs required by the processes and the outputs they produce.

There are many ways that business processes can be logically bundled, making this an exercise with no "right" answer. This description of the business of elections is meant as a starting point to be elaborated and refined through collaboration with the broader electoral community.

The model focuses on business processes that are unique to the business of elections and, in so doing, excludes a portion of the day-to-day work performed by electoral agencies (e.g., permanent staff recruitment, payroll, training, facilities management, procurement, operational budgeting, etc.). Their exclusion from this document is not intended to diminish the central role that these functions play in the effective operation of an electoral agency, nor the significant human and financial resources needed to support them. These more standard functions are well described in the existing business literature.

It is also important to note that the business areas defined here do not necessarily correspond with the organizational structure of an electoral agency. While all agencies deliver these business processes to some degree, local budget, staffing, cultural and management factors will influence how they are combined into organizational units in a given agency.

3.2 EMRM Components and Presentation Standards

The EMRM consists of three key components, defined as follows:

Business areas: logical groupings of business processes. There are five business areas: Electors, Electoral Geography, Political Entities, Election Finance, and Events.

Business processes: a grouping of related activities that use one or more inputs to produce a specific service or product (outputs).

Inputs and outputs: inputs are products and services that are used by the business processes to produce other products or services. Inputs may be sourced from external stakeholders, or they may come from other business areas within the organization. Outputs are products and services produced by the business processes that become inputs to another business process within the agency, or to external stakeholders.

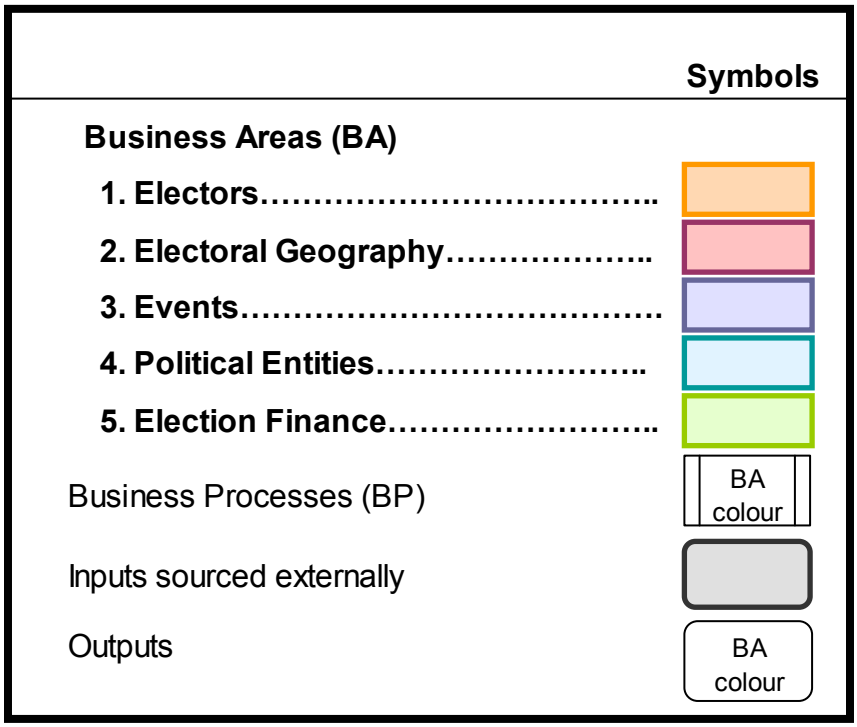
Figure 5 illustrates the standards used throughout the document to describe the EMRM. When presented in figures, business areas are represented as shaded rectangles, with each of the five

business areas having an assigned colour. In the body of the document, the names of business areas are shown in bold and capitalized (e.g., **Electors**).

When business processes are shown separately in figures, they are represented as a rectangle with a bar down each side (see Figure 5). The symbol for business processes appears in the same colour as the business area to which they belong. In the body of the document, the names of business processes are capitalized, but not bolded (e.g., Elector Registration).

Inputs sourced from outside the organization (e.g., financing reports from political entities, secondary sources of registration data, etc.) are shaded grey when presented in figures. Outputs from all business processes are shaded in the colour of the corresponding business area. In figures, inputs and outputs are shown in boxes with rounded corners. In the body of the document, inputs and outputs are shown in lower case (e.g., elector registration information).

Figure 5 Business Areas and Presentation Standards



3.3 Overview of the EMRM

Figure 6 (page 18) provides a detailed level view of the entire EMRM, illustrating the five business areas, their associated business processes, and their interactions with one another and with external stakeholders through inputs and outputs.

Legislation is shown as a general input to the overall model because it impacts every facet of event delivery. Electoral agencies formulate policies and procedures that comply with legislation and these are global inputs to the business areas and their associated processes in the EMRM.

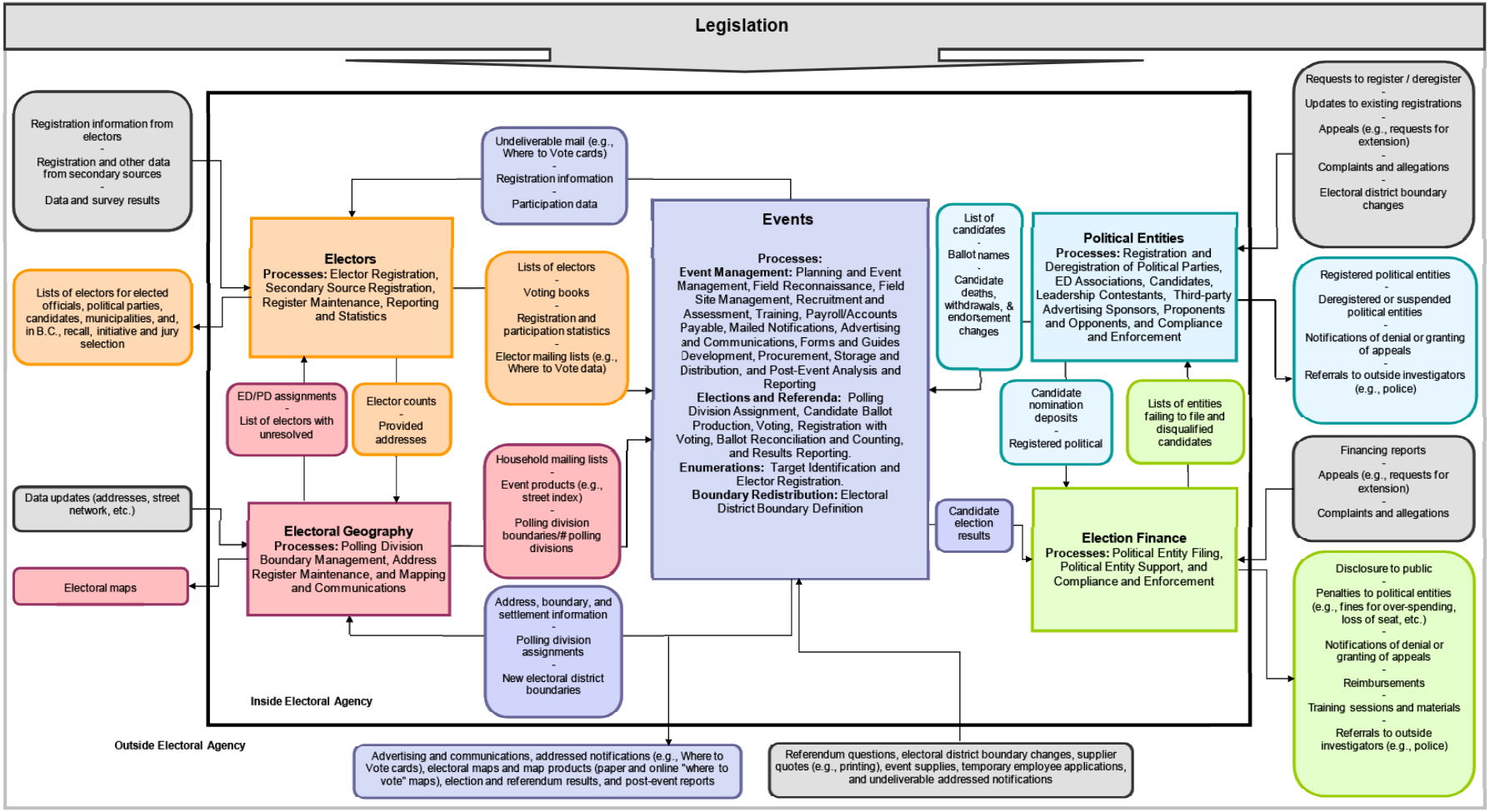
At the core of the EMRM is the **Events** business area, which includes business processes common to all events (e.g., planning), as well as the processes that are specific to particular types of events (e.g., voting and ballot production processes occur in election and referendum events).[6] Three main categories of events are included in the **Events** business area: elections and referenda, enumerations, and boundary redistributions. Reference is made to recall and initiative events throughout the body of this document, however, this version of the EMRM does not address these events fully because they exist only in B.C.

Figure 6 shows that there is a pair of business areas on either side of the **Events** business area: **Electors** and **Electoral Geography**, and **Political Entities** and **Election Finance**. The input and output flows indicate extensive interaction with external stakeholders, with the **Events** business area, and between the members of each paired grouping of business areas, but little to no interaction between the paired groupings of business areas. For example, there are no inputs and outputs that are shared directly between **Electoral Geography** and **Political Entities**.

In next five chapters, each business area is examined in detail, including a review of the current issues impacting the business area and a scan of future issues.

[6] Note that Figure 6 does not illustrate all of the inputs and outputs shared between each type of event and the business areas. Greater detail in this area is provided in the chapter that focuses on the **Events** business area.

Figure 6 The EMRM: Business Areas, Business Processes, Inputs and Outputs



4.0 ELECTORS

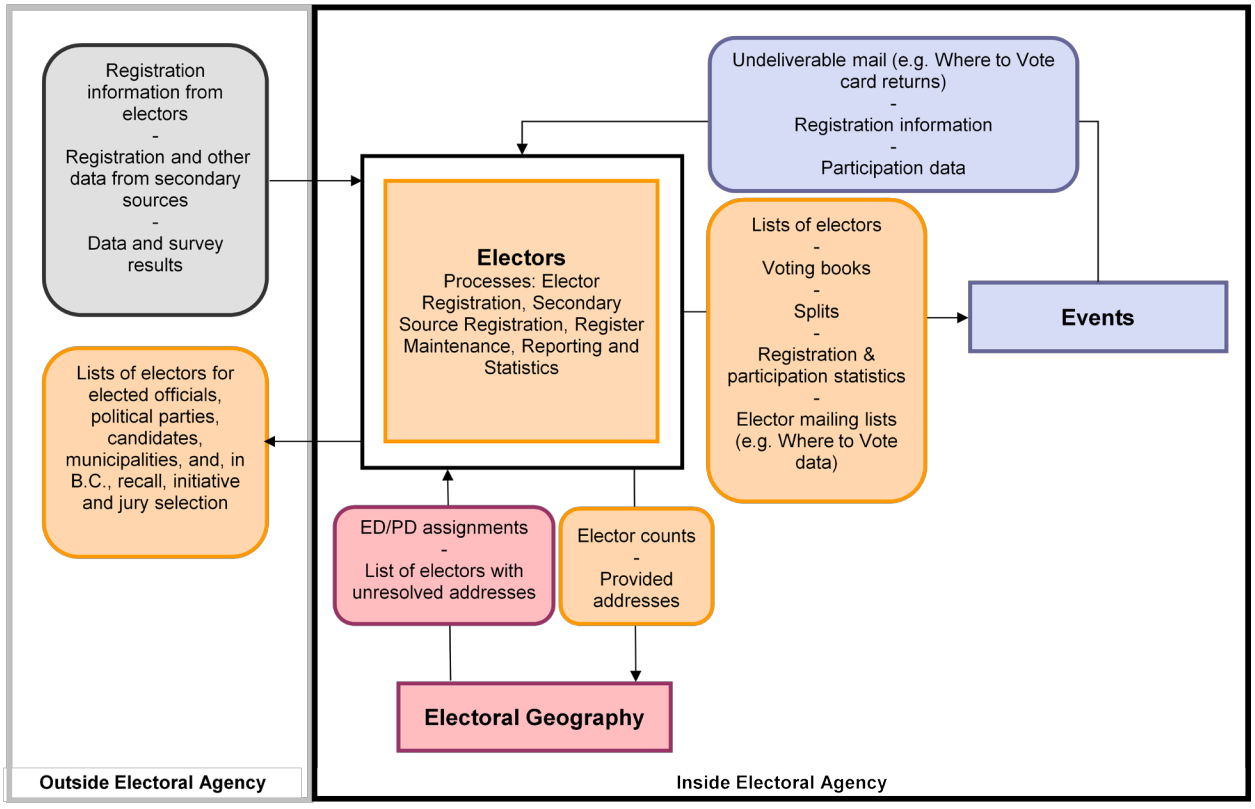
This chapter provides an overview of the business processes and current and future issues impacting the **Electors** business area.

The **Electors** business area focuses on registering eligible citizens as electors, creating and maintaining a register of electors, and producing lists of electors and related statistics. In order to do this, registration information is collected from external stakeholders, such as electors and reliable, secondary sources. The **Electors** business area also receives and processes registration information collected through **Events**.

In order to ensure the integrity of registration data received from a variety of sources, the register must be maintained with processes that identify and resolve duplicate records and other data irregularities, apply updates appropriately, etc. At various points in the business cycle, extracts of the register are printed in the form of lists of electors for use by external stakeholders and by election officials in administering elections and referendums.

Figure 7 shows how the **Electors** business area relates to other business areas within the electoral agency and to external stakeholders through inputs and outputs.

Figure 7 Electors Business Processes and Interactions



4.1 Overall Objectives for Electors Business Area

The business processes in the **Electors** business area focus on achieving the following objectives:

1) To produce a high quality register of electors to support the administration of enumerations, elections, referenda, and recall and initiative events.
2) To produce timely and high quality lists of electors at designated points in the business cycle.
3) To produce timely and accurate registration statistics for use in measuring the quality of the register of electors and in managing the delivery of events.
4) To support the production of event reports through the provision of accurate statistics about elector registration volumes, and sources.

4.2 Electors Business Area Background

4.2.1 Elector qualifications

Electors are individuals who are eligible to register and vote in a given jurisdiction. The specific eligibility requirements are defined in the electoral law of each jurisdiction. All jurisdictions in Canada require electors to be at least 18 years of age, to be Canadian citizens, and to meet a residency requirement (e.g., ordinarily resident in the jurisdiction or resident in the jurisdiction for a specified minimum time period). For instance, to be eligible to vote in Nova Scotia, an elector must be 18 years of age, a Canadian citizen, and must have been a resident of that province for six months preceding the writ date.

4.2.2 Elector registration

All electors must be registered before they can vote. Electoral agencies collect personal information from electors to confirm that they meet the eligibility criteria to vote and to assist in maintaining their elector record over time. This elector registration information is stored in a register of electors. All agencies collect registration information directly from electors, and some also collect information from secondary sources, such as a register of electors from another jurisdiction or a drivers license file to ensure electors are at the correct address. For Québec, an important source of secondary elector information is the Health Insurance Agency – Régie de l'Assurance Maladie du Québec (RAMQ).

4.2.3 Elector data elements

The standard data collected from electors as defined in the Electoral Technology Accord's 2006 Common Data Model includes the following.

- first name,
- middle name(s),
- last name,
- date of birth,
- gender,
- provided address,

- physical address,
- ED/PD assignment of physical address,
- contact information (e.g., mailing address, telephone number, email address), and
- shared secrets (for some jurisdictions only - e.g., last six digits of SIN or drivers' license number).

In addition to the information provided directly by the elector, the register of electors generally includes the following:

- unique identifier (a unique number that may or may not be randomly generated),
- status (active, inactive, purged, deceased, protected, etc.),
- event participation (event identifier, voted status, voting method),
- transaction details (applicable data identifier, transaction type, data source, system date, accepted date, effective date, confirmed date), and
- contact log (contact type, date sent, date returned, return reason).

For more information about the specific data elements related to **Electors**, please refer directly to the 2006 Common Data Model.

4.2.4 Lists of electors

The main purpose of the list of electors during an election is to ensure that only registered electors vote and that they vote only once. In this sense, the list of electors is a control document used in voting to record who has voted and to guard against multiple voting.

There are many subsidiary uses of the list of electors as well. Political parties, elected officials, and candidates use the list of electors to facilitate communications with electors. The list of electors may be an input to an enumeration event, where it may be used as a starting point for the creation of a more complete and current register of electors. Lists of electors assist event planners to anticipate turnout and plan staffing. Extracts from the register of electors may be used by other electoral agencies and government bodies with overlapping jurisdictions (e.g., municipalities). Finally, in B.C., lists of electors are used in the administration of recall and initiative petitions, and they are also used for jury selection. Lists produced outside of the event phase are produced at the head office of the electoral agency.

Lists of electors are created by producing an extract from the register of electors, which is the database or spreadsheet that stores all elector registration information. The names of registered electors only are included on the list of electors and electors must either be on the list, or they must register in conjunction with voting, before being issued a ballot in an election or referendum. The creation and production of lists of electors used in the administration of voting may take place in the electoral agency head office or in the field under the supervision of Returning Officers. The different approaches across electoral agencies reflect differences in legislation and the amount of time between the close of general registration and the start of voting.

4.2.5 Types of lists of electors used in events

To support the administration of elections and referenda, several lists are produced at key dates in the election period, as defined by local legislation. The preliminary list is produced on, or close to, the day the writ is issued and reflects all of the registered electors as of the day the writ is issued. The preliminary list is usually produced in the electoral agency head office. This preliminary list undergoes revision until the beginning of the closed period for registration when registration is either not available until after voting concludes, or is only available at the time of voting. A second list that reflects the registrations received up to the beginning of the closed period for general registration is produced for use in the administration of voting. This second list has different names; for instance, in B.C. it is called the revised list and at the federal level and in New Brunswick it is called the official list.

Most jurisdictions have a mechanism by which this second list is modified prior to use on Voting Day to reflect voting during the advance period. For instance, Elections Ontario issues a new, polling day list of electors for use on Voting Day that includes the names of all electors who voted advance and an indication that they have already voted. In B.C., those who voted advance are manually marked off the original, revised list by field office staff prior to Voting Day. A separate list is made of those who registered in conjunction with advance voting to ensure they do not vote again on Voting Day.

During the post-event phase, a final list that includes all of the registrations up to the close of general registration, plus those that were received at the polls, may be produced after the election. This list reflects the total number of registered electors in the jurisdiction as of the close of voting on Voting Day and may be used to generate statistics for the statutory event report.

The information on the list generally includes electors' given and family names, their address, polling division, electoral district, and a unique sequence number. The list may also indicate the elector's gender. At the federal level, Elections Canada is required to include electors' full dates of birth on lists of electors used in the administration of voting. Some jurisdictions also include electors' mailing addresses on lists of electors.

Depending on the purpose, hard-copy lists of electors are produced in different sort orders. For instance, for the purpose of voting administration, separate lists of electors are produced for each polling division and formed into voting books. Within each polling division, registered electors are sorted alphabetically by surname to facilitate efficient look-up by poll workers. For the purpose of registration at the time of voting, some jurisdictions produce a separate list for the electoral district, with electors sorted alphabetically by surname or by address. Some jurisdictions (e.g., New Brunswick) are starting to provide electronic access lists of electors at polling places through small computers. Poll workers use the computers' search functionality to find and strike-off electors.

4.2.6 Permanent register vs. temporary list

Elector data may be maintained on an on-going basis or it may be created through an enumeration for use in a single event. Registers of electors that are maintained throughout the business cycle are called permanent registers or continuous lists; those that are created for use in

a single event are called temporary lists. Eleven jurisdictions produce their lists of electors from a permanent register of electors: Canada, Newfoundland and Labrador, Prince Edward Island, Nova Scotia, New Brunswick, Québec, Ontario, Alberta, British Columbia, Nunavut, and the Northwest Territories. With the exception of Canada, local legislation allows these jurisdictions to also update their register through enumeration. The four jurisdictions that do not maintain a permanent register of electors are: Manitoba, Saskatchewan, and Yukon.

4.2.7 Register of electors quality statistics

The quality of the information in the register of electors at a given point in time is measured by three main indictors: coverage and currency and net currency . For each measure of quality, the table below shows the question the statistic answers, the formula used for its calculation, and an example calculation based on data for a hypothetical jurisdiction with the following characteristics:

Population = 5,000,000
Eligible electors = 4,000,000
Registered electors = 3,750,000
Registered electors at their correct address = 3,300,000

Coverage:	How complete is the register of electors relative to the number of eligible electors? Calculated as: # registered electors / # eligible electors 3,750,000 / 4,000,000 = 93.75%
Currency:	What proportion of registered electors is listed on the register at their correct address? Calculated as: # registered electors at correct address/ # registered electors 3,300,000/3,750,000 = 88.00%
Net Currency:	What proportion of eligible electors is listed on the register at their correct address? Calculated as: # registered electors at correct address/ # eligible electors 3,300,000/4,000,000 = 82.50%

Coverage is measured by comparing the number of registered electors to estimates of the number of eligible electors at the electoral district and full-jurisdiction levels of geography. Coverage is often assessed within age groups or geographical areas. Over-coverage in the oldest age-groups is usually a sign that deceased electors are not being effectively removed from the register. Over-coverage in younger age groups may indicate that citizens who are no longer qualified electors (e.g., have moved out of the jurisdiction) are not being effectively removed from the register.

Assessing currency and accuracy generally involves surveying a random sample of registered electors and confirming whether the information stored in their elector record is correct. Net currency requires both a survey to estimate the number of registered electors registered at their current address and an estimate of the total number of eligible electors. Quality audit surveys are

helpful tools for identifying sources of over coverage, such as failure to remove deceased electors, inclusion of ineligible electors, and failure to identify duplicates.

4.2.8 Elector status or "flags"

While legislation stipulates who may access a list of electors and for what purpose, some registered electors may not wish to have their name and address included on lists released to external stakeholders. There are two situations where an elector may opt-out of being included on a list of electors: those who believe they may be physically at risk if their information is released through a list of electors; and those who are concerned about their privacy and do not wish to have their data shared with other jurisdictions.

Electors who formally request to have their information suppressed from printed lists due to concern for their personal safety are referred to as protected electors. Special processes may be used to notify this particular group of electors of electoral events and for them to obtain their ballots.

Many electoral agencies accommodate requests for special handling of elector records and/or requests for removal from the register through one or more status fields. For instance, an elector might have a status value that indicates their wish to opt out of sharing their information with other jurisdictions, or to opt out of having their name on the voters list *and* sharing their information. Even in the case of electors who ask to be removed from the register of electors altogether, it is generally considered preferable to change the elector's status as opposed to, for instance, purging the record. The reason is that updates to the register of electors come from many sources and an elector that was purged from the register may be added again through no action of their own. When the elector record and the associated "flag" is maintained, new information can be linked to the existing record and the "flag", and the special information that it denotes, is not lost.

4.3 Electors Business Area - Inputs, Business Processes, and Outputs

The **Electors** business area is described in this section in terms of its inputs, business processes and outputs.

4.3.1 Inputs to **Electors** business processes

Some of the **Elector** business processes require inputs from sources external to the organization, such as electors or other electoral agencies, while other inputs come from other business areas within the organization. A brief description of the main inputs to the **Electors** business processes is provided below.

4.3.1.1 Registration information from electors

Registration information from electors includes elector-sourced registration information collected outside of an event and used in the maintenance of a permanent register. It comes in a variety of formats: hard-copy registration forms; verbal information received by telephone; and electronic data received through online registration systems. Information sourced from electors may pertain to their own record or, subject to local legislation and policies, another elector.

4.3.1.2 Registration information and other data from secondary sources

Registration and other data from secondary sources is data used in the maintenance of a permanent register that is not sourced directly from electors. Registration data is sourced from other electoral agencies with overlapping jurisdictions and other data comes from other government sources (e.g., vital statistics, motor vehicle registries, National Change of Address (NCOA), etc.). Data from secondary sources is generally in electronic format.

4.3.1.3 Returned Where to Vote Cards from **Events**

Electoral agencies use mail returned as undeliverable (e.g., returned Where to Vote cards), as a source of information for updating the register.

4.3.1.4 Registration information from **Events**

Elector-sourced registration information that is collected as part of an enumeration, election or referendum event is an input to **Electors** business processes. This registration information comes mainly in the format of hard-copy registration forms completed with the assistance of enumerators or election officials but, depending on the approach to enumeration, may also include verbal information received by telephone, electronic data received through online registration systems, and/or electronic information captured in the field by Returning Officer staff.

4.3.1.5 Undeliverable mail from **Events**

When addressed mail based on the register of electors is returned as undeliverable, the **Electors** business area is notified. Returned mail may indicate that the elector's registration is no longer current.

4.3.1.6 Elector participation data from **Events**

Elector participation data from **Events** is case-level event participation information for each elector. For instance, if an elector voted, a voted "flag" could be set on the elector's record for that event. The information is derived from a review of voting documentation and is produced in electronic format by the **Events** business area. It is provided to the **Electors** business area for storage in the register of electors and for reporting.

4.3.1.7 Electoral district/polling division assignments from **Electoral Geography**

When elector registration information is data captured by the **Electors** business area, elector addresses are sent to the **Electoral Geography** business area for geo-coding and assignment to an electoral district (ED) and polling division (PD). The ED/PD assignment becomes an input to the **Electors** business area and is stored in the register of electors as part of the elector record.

4.3.1.8 List of electors with unresolved addresses from **Electoral Geography**

Sometimes there is an error or missing information in an elector address that makes it impossible for **Electoral Geography** to locate the address on the ground. The elector registration that corresponds to the unresolved address must be set to inactive if there is ambiguity about the elector's correct electoral district assignment.

4.3.1.9 Survey results and secondary data

Survey results and Census data are needed to assess the quality of the information in the register of electors at different points throughout the business cycle.

4.3.2 Business Processes in **Electors**

There are four business processes in the **Electors** business area:

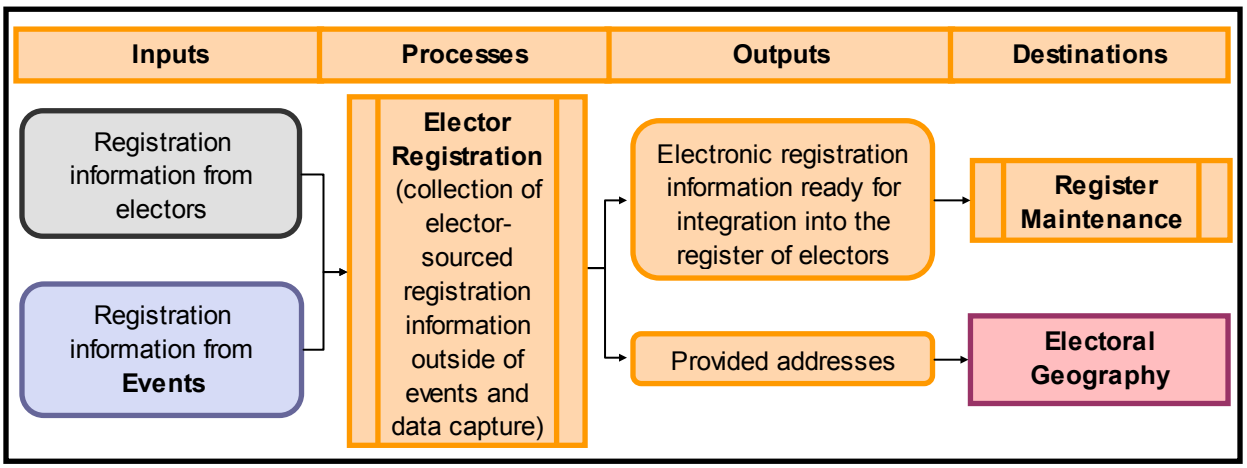
1. Elector Registration
2. Secondary Source Registration
3. Register Maintenance
4. Reporting and Statistics

What follows is a description of the business processes in terms of inputs to the processes, what is produced as a result of the processes and where those outputs are used.

4.3.2.1 Elector Registration

Elector Registration processes include the collection of registration information from electors outside of an event and the data capture of all elector-sourced registration information so that it is ready for integration into the register of electors. Figure 8 summarizes the inputs, outputs and the destinations for Elector Registration business processes.

Figure 8 Elector Registration Processes – Inputs, Outputs and Destinations



Collection of elector-sourced registration information

Jurisdictions that maintain a permanent register allow electors to access registration channels throughout the business cycle. The Elector Registration business processes include the collection of registration information through a variety of channels: in-person, mail, telephone, fax, and online. Recent innovations in this area include online registration, which is intended to make registration accessible to electors throughout the business cycle.[7]

Elector-sourced registration information includes information provided by an elector pertaining to their own record and information pertaining to other electors. Local legislation and policies

[7] The business processes related to the collection of elector-sourced registrations during events (enumeration, election or referendum) are covered in the **Events** business area chapter.

govern the circumstances under which an elector can provide information relating to another elector. Some provision for this is necessary to ensure that deceased electors are removed from the register. Agencies often create a policy matrix that shows what type of registration transaction can be initiated by who and on whose behalf. In B.C., for instance, an elector's record can be set to a status of "inactive", "moved", or "address unknown", based on information supplied by another registered elector who resides at the same address.[8]

Data capture of elector-sourced registrations
The elector registration business processes also include the data capture of all elector-sourced registrations, including those collected in the field by enumerators and in polling places during elections. In the case of online registration, information is data captured by electors directly; registration information from all other non-event elector registration channels (e.g., telephone, fax, mail and in-person) is data captured by agency staff. In the case of telephone registration, the information may be entered directly into the register, or into a separate electronic file for subsequent loading into the register through Register Maintenance processes. Due to high volumes, some electoral agencies contract out the data capture of elector registration information from **Events** and some rely on Returning Officer staff for data entry.

Destinations
As illustrated in Figure 8, after data capture, there are two destinations for the outputs of Elector Registration business processes: Register Maintenance processes and the **Electoral Geography** business area. Register Maintenance processes (described in section 4.3.2.3, page 29) integrate the data-captured registration information into the register of electors. Addresses provided by electors are sent to the **Electoral Geography** business area for geo-coding and assignment to an electoral district and polling division.

4.3.2.2 Secondary Source Registration

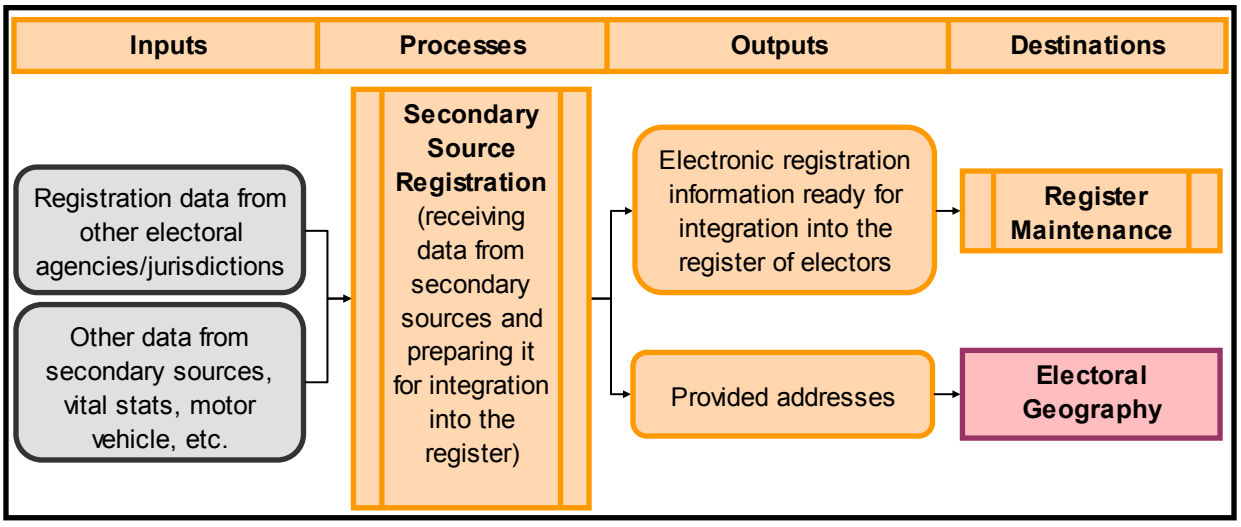
Secondary Source Registration involves receiving data from external, secondary sources and preparing it for integration into the register of electors. These business processes are performed mainly by electoral agencies that maintain a permanent register, although they may also be used when data from a secondary source serves as a starting point for enumeration.

Use of secondary sources reduces duplication of effort across jurisdictions and between government agencies by making effective use of existing information. It also reduces reliance on electors to maintain their own registration records. Secondary sources are a particularly valuable source of information for moving electors to the correct address and removing electors who are deceased.

Figure 9 summarizes the inputs, outputs and the destinations for Secondary Source Registration business processes.

[8] Agencies use different terms to describe an "inactive" status. For instance, Nunavut uses "limbo".

Figure 9 Secondary Source Registration Processes – Inputs, Outputs and Destinations



Formal agreements govern the sharing of elector data between electoral agencies and between electoral agencies and other government departments. Changes to electoral and/or privacy legislation is usually required to specifically permit the sharing of elector data between government bodies.

Electoral agencies that maintain a permanent register may receive data from a variety of secondary sources (Table 1). Provincial electoral agencies rely mainly on provincial sources of data, such as vital statistics registrars for identifying deceased electors and motor vehicle registrars for updating or confirming elector addresses. Some provincial electoral agencies also use Canada Post's National Change of Address database to maintain the currency of address information and to identify electors who have moved out of the jurisdiction.

Table 1 Secondary Data Sources and Types of Register Transactions

Secondary Data Sources	New registration	Address update	Name update	Birth date update	Confirm	Remove
Electoral agencies with overlapping jurisdictions	x	x	x	x	x	x
Provincial and territorial vital statistics registrars			x		x	x
Provincial and territorial motor vehicle registrars		x			x	x[2]
Canada Revenue Agency		x[1]	x[1]	x[1]	x[1]	x[1]
Canada Post Corporation (National Change of Address Service)		x			x	x[2]
Citizenship and Immigration Canada						

1. These transactions are only performed by Elections Canada on the National Register of Electors.
2. These sources may result in the removal of an elector from provincial or territorial registers if they show that an elector has moved out of the jurisdiction.

In addition to the sources mentioned above, Elections Canada is working with a few federal agencies to allow individuals to consent to share their name, address and date of birth information with Elections Canada when they complete forms for other purposes. Currently, there are active consent sections on Canadian tax forms, Citizenship and Immigration applications and Canada Post's National Change of Address form. The only secondary source from which new registrations can be directly processed is other electoral agencies with overlapping jurisdictions. New registrations may be added to the National Register of Electors from information provided by Canada Revenue Agency or Citizenship and Immigration Canada, but not before individuals are contacted directly by Elections Canada.

Variations among agencies and data providers in database structure and variable definitions mean that data need to be transformed prior to integration into the register to ensure consistent definitions. This is the focus of the Secondary Source Registration business processes – transforming electronic data from a variety of sources into a format that can be received by the Register Maintenance processes for application to the register. Data standards are important to streamlining the sharing of elector information among agencies. The Common Data Model is an example of efforts on the part of electoral agencies to create standards around the definition of elector data that will facilitate sharing.

Destinations

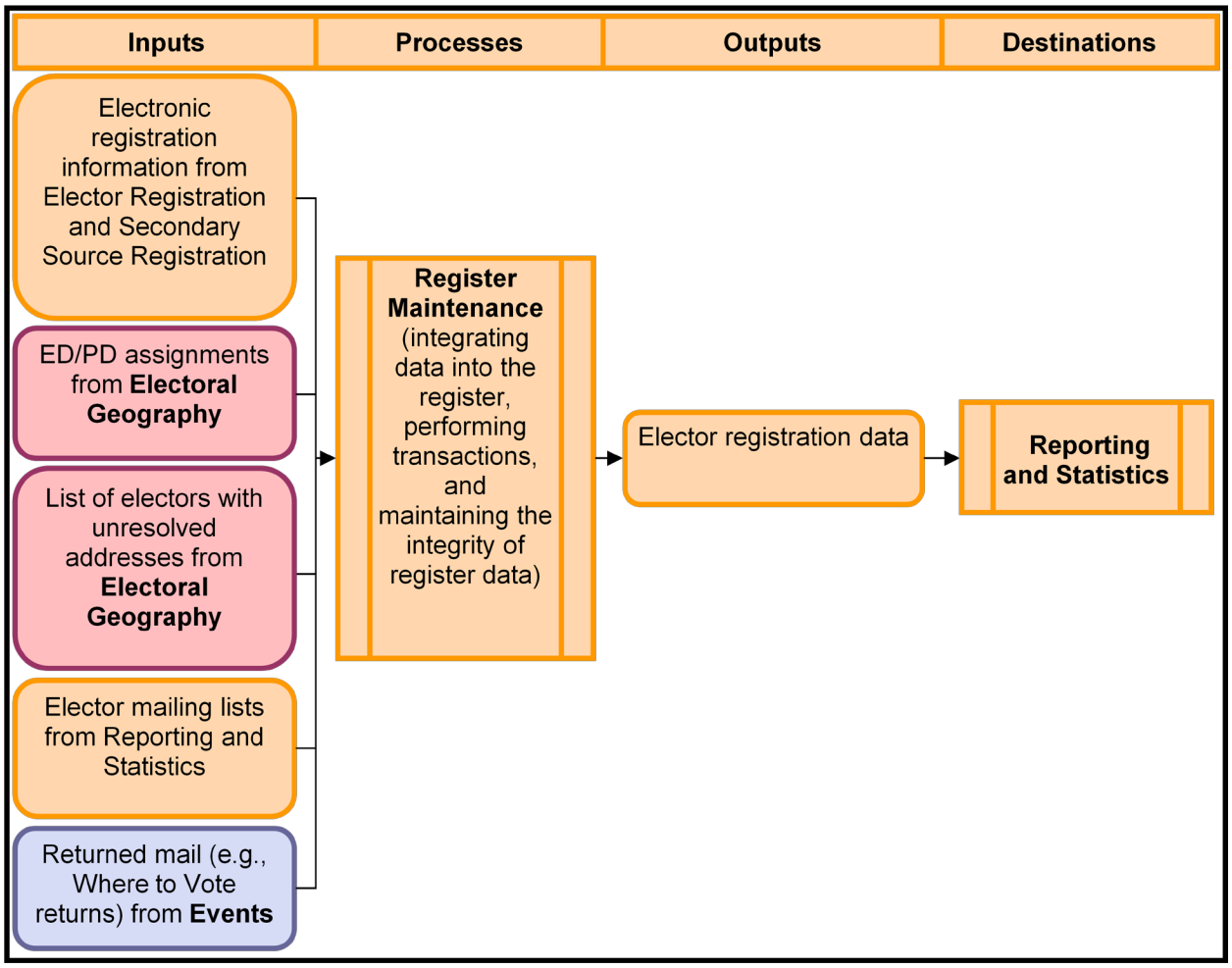
As illustrated in Figure 9, there are two destinations for the outputs of Secondary Source Registration: Register Maintenance and **Electoral Geography**. Register Maintenance business processes (described in section 4.3.2.3, below) integrate the data from secondary sources into the register of electors and apply appropriate transactions. Addresses provided by secondary sources are sent to the **Electoral Geography** business area for geo-coding and assignment to an electoral district and polling division.

4.3.2.3 Register Maintenance

Register Maintenance involves integrating or merging new data into the register of electors, identifying and applying appropriate transactions (e.g., adding new registrations, updating existing registrations and removing electors), and maintaining the integrity of register data through data maintenance processes and elector mailings. Register Maintenance processes also receive information from **Electoral Geography** about electors with unresolved addresses and the electoral and polling division assignments for elector addresses.

Figure 10 summarizes the inputs, and the output and its destination for Register Maintenance business processes.

Figure 10 Register Maintenance Processes – Inputs, Outputs and Destinations



Integrating new information into the register needs to be done systematically in order to ensure the integrity of the data is maintained. Matching data across different data sources is a complicated process. Sophisticated matching processes are used to identify whether each new record represents a new elector or an update to an existing record. Reality is complicated for a number of reasons, including:

- some people have several addresses (main residence, vacation property, etc.);
- some use variations of the same name (e.g., Betty, Elizabeth);
- some electors interchange their middle and first names on different data sources (e.g., Anna Kathleen on one data source and Kathleen Anna on another);
- some data sources use free-form text for addresses;
- two different people may have the same name and live at the same address (e.g., father and son);
- two different people can have the same name and the same birth date; and
- others may live in a rural area without a complete street address.

In spite of all of this complexity, there must be one active record and physical address for each registered elector in the database to ensure the fundamental principle of one person one vote. To identify matches, some agencies use deterministic matching algorithms, others use probabilistic algorithms, and others rely extensively on manual reviews (see Matching Algorithms text box).

Regardless of the type of matching system used, agency staff who are trained in how to find and consider the information necessary to determine whether two or more records represent the same elector are involved in reviewing records that are not automatically matched.

After the matching processes are complete, the appropriate transactions are applied to the register. If the new data matches an existing record in the register, the transaction may be an update, a confirm, or a remove. When no match is found, the elector record is added to the register as a new elector. Records with multiple matches are reviewed manually. A history of transactions may be maintained in the register, including the date and source of new information for each transaction.

Matching Algorithms

Deterministic matching uses a combination of algorithms and business rules to determine when two records match. The match is determined by the satisfaction of one or more business rules. Deterministic matching systems do not scale well because, for instance, if a new attribute is added, the number of business rules multiplies and system performance may be affected. This approach is best suited to situations where exact matches are anticipated and the number of records is relatively small.

Probabilistic matching uses likelihood ratio theory to assign a probability of a match (e.g., 76% likely to be a match). Agencies can set their own thresholds for probabilities that correspond to an automatic match and a range of probabilities that should be manually reviewed. These approaches are best suited to systems where the number of attributes is high and the datasets are large.

In the case of registration data from other electoral agencies, transactions cannot always be applied immediately. For instance, if there is uncertainty about whether an elector meets a local residency requirement, the transaction may not become active until after the residency period has been satisfied. In B.C., new registrations from the National Register of Electors become active after six months, which is the B.C. residency requirement under local legislation.

Register Maintenance also involves running checks to ensure the integrity of the data in the register of electors. The ability to produce custom reports to identify subsets of elector records that satisfy specified criteria is very important. For instance, a report that identifies elector records that have not been updated in the last ten years may be helpful in identifying records that should be set to ‘inactive’. Reporting is also an essential part of identifying and correcting data irregularities, such as records with missing birth dates, or electors whose age falls outside of an acceptable range (e.g., over 100 or under 18).

Sometimes mailings are conducted to subsets of elector records suspected of being out-of-date. When mail is returned to the agency as undeliverable, the information is used to update the register. The register of electors is often used as a source of custom mailing lists for elector

notifications mailed through processes in the **Events** business area (e.g., Where to Vote Cards) and as part of Register Maintenance (e.g., relatively small data quality mailings). Mail that is returned as undeliverable provides valuable feedback regarding the currency of address information in the register. Returned mail is transformed into electronic information through barcode scanning or data capture as part of Secondary Source Registration. When in electronic format, information from returned mail does not need to be transformed prior to integration into the register through Register Maintenance processes because it was sourced from the register originally.

Electoral district and polling division assignments for elector addresses from **Electoral Geography** are integrated into the register as part of Register Maintenance. When **Electoral Geography** is unable to derive a physical address by geo-coding an address provided by the elector or a secondary source, Register Maintenance processes set the corresponding elector registration to inactive until more information becomes available.

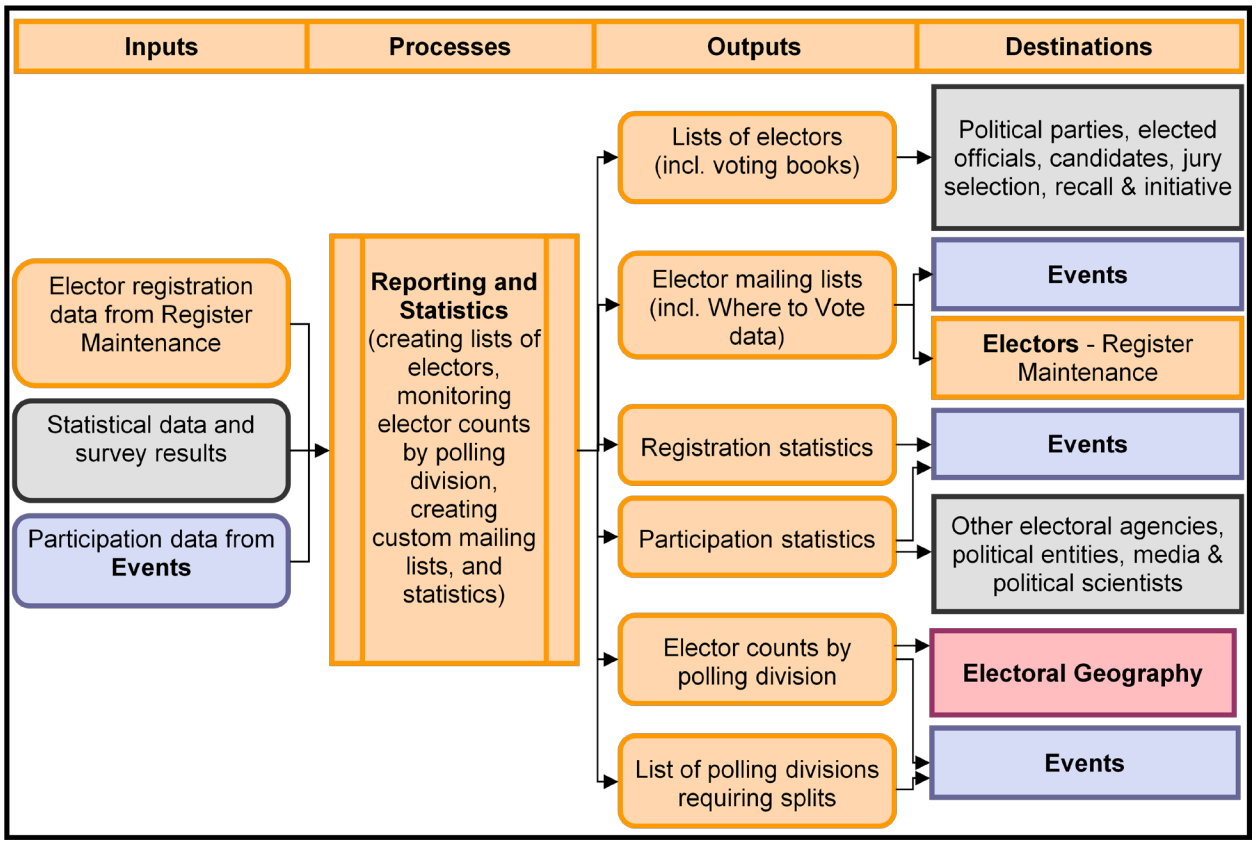
Destinations

The ultimate output of Register Maintenance processes is registration data that is ready to be used by the Reporting and Statistics business processes for the production of lists of electors, custom mailing lists and registration statistics.

4.3.2.4 Reporting and Statistics

Reporting and Statistics involves creating lists of electors (including voting books) in various sort orders to meet the needs of different stakeholders, and creating data for Where to Vote cards, and custom mailing lists. These processes also include producing statistics to facilitate assessment of the quality of the register of electors (e.g., coverage, currency and net currency) and reports to assist in the management of events (e.g., number of registered electors per polling division). To production statistics, electoral agencies may need to acquire data from government statistical agencies (e.g., number of eligible electors) and/or undertake register quality audit surveys. Figure 11 summarizes the inputs, outputs and the destinations for Reporting and Statistics business processes.

Figure 11 Reporting and Statistics Processes - Inputs, Outputs and Destinations



The key input to Reporting and Statistics business processes is elector registration data that has been through Register Maintenance processes. The register data is extracted to create lists of electors and custom mailing lists. Lists of electors are produced throughout the business cycle in CD and printed formats for use by different external stakeholders.

Elector counts in each polling division are monitored prior to an election to identify those polling divisions that exceed the maximum number of registered electors by a sufficient margin that they require a split voting book. Reporting and Statistics processes divide the list of registered electors for these polling divisions into approximately equal portions to ensure a reasonable workload for election officials. As an example, the book might be split alphabetically by elector surname with one polling station serving electors with last names beginning with letters A through M, and the second serving electors with lasts names starting N through Z. Alternatively, the list might be split based on street name or building number. A list of polling divisions requiring split voting books is provided to the **Events** business area for planning purposes. Polling division counts of electors provided to **Electoral Geography** by the **Electors** business area are used to assess the need for polling division boundary redistribution.

Mailing lists are produced to support the Mailed Notifications business processes in the **Events** business area and quality assurance mailings conducted through Register Maintenance processes. For example, Where to Vote cards are sent to all registered electors just prior to the start of advance voting through the **Events** business area. The variable data that populate the cards

(elector name, residential address, mailing address, polling division, and electoral district) come from the Reporting and Statistics business processes of the **Electors** business area.

In preparing mailing lists, a Canada Post approved address validation software package, such as Street Perfect or Street Sweeper, is applied to urban mailing addresses. When mailing lists meet or surpass Canada Post accuracy standards, the deliverability of the mail improves and Canada Post offers incentive postage rates.

Mail sent to rural locations requires additional information, such as a person's name, a rural route, PO Box, etc. Mail cannot be sent generically to "the residents" of a household in rural areas; it must be addressed to a person in order to ensure delivery. Rural areas of the country are identified by postal codes that have a zero in the first numeral position (e.g., V0K 1N2).

Depending on the purpose of the mailing, the list may be structured in a variety of ways to maximize cost-efficiency. For instance, does each elector require their own notice, or can electors residing at the same address receive a single notice? In the case of Where to Vote cards, one notice is usually sent to each registered elector, however, for enumeration notices, it may be possible, in urban areas, to send one notice to electors who reside at the same dwelling unit (see **Electoral Geography**, section 5.3.2.2).

Reporting and Statistics business processes also produce two types of statistics: registration statistics and participation statistics. Registration statistics provide information about the quality of register data and the number of registered electors by geography, age group, gender, etc. This information is used within the **Electors** business area to develop strategies to improve the quality of register data. It is also used by the **Events** business area to target communications and for planning event administration. Participation statistics provide demographic and geographic detail regarding the proportion of eligible electors that participated in an event. These statistics are provided to the **Events** business area for inclusion in event reports and release to the general public.

Destinations
Reporting and Statistics processes produce lists of electors, voting books and split voting books, elector mailing lists, and statistics regarding registration and participation for use by the **Events** business area. Lists of electors are also made available to registered political entities, such as political parties and candidates. Elector-mailing lists produced by Reporting and Statistics processes may be used by Register Maintenance processes to conduct quality assurance mailings. Participation statistics are used by the **Events** business area in reporting on and analyzing elector turnout trends, and by other interested stakeholders. The **Electoral Geography** business area uses elector counts by polling division as an input to the management of polling division boundaries.

4.3.3 Outputs of **Electors** business processes

The outputs of each of the four business processes in the **Electors** business area have been shown in Figure 8 through Figure 11. A brief description of the main outputs of the **Electors** business processes is provided below.

4.3.3.1 Electronic registration information for Register Maintenance

Both Elector Registration and Secondary Source Registration business processes produce registration information in an electronic format that conforms to the data standards of the register of electors. This electronic registration information is integrated into the register through Register Maintenance processes.

4.3.3.2 Provided addresses for **Electoral Geography**

When elector registrations are processed through Elector Registration and Secondary Source Registration, the electors' addresses are sent to **Electoral Geography** so that the corresponding physical addresses can be derived through the geo-coding process. The physical address is used to identify the electoral district and polling division assignment. The assignments are re-integrated into the register of electors through Register Maintenance processes.

4.3.3.3 Lists of electors for **Events** and external stakeholders

Lists of electors are prepared in different sort-orders and in print and CD formats for use by:

- political parties, elected members, and candidates to support communication with the electorate.
- **Events** to support enumerations, registration, and voting at the polls. Voting books are a special type of list used to document who has voted.
- other jurisdictions, such as use of provincial lists for municipal elections or the federal list for provincial elections.
- in B.C. only, lists may also be used for the administration of recall and initiative events and by other government departments for non-electoral purposes permitted by legislation, such as jury selection lists.

4.3.3.4 Elector mailing lists for **Events** and Register Maintenance

Elector mailing lists are produced for use by **Events** to send notifications to defined subsets of registered electors. Typically, the largest addressed mailing is the distribution of Where to Vote cards to all registered electors just before the start of advance voting.

4.3.3.5 List of polling divisions requiring splits for **Events**

The **Events** business area is notified of polling divisions that require splits. These polling divisions require additional election officials to be hired and trained, additional polling stations and supplies, and possibly more polling places.

4.3.3.6 Elector counts by polling division for **Electoral Geography**

The **Electors** business area provides counts of registered electors by polling division to **Electoral Geography** to assist in the identification of polling divisions that require boundary redistribution.

4.3.3.7 Registration statistics for **Events**

Registration statistics are used by **Events** to target communications efforts to support enumeration, election and referendum events. Registration statistics are also used directly by the **Events** business area to inform their administration. For instance, information regarding the number of registered electors per polling division is used by the **Events** business processes to

determine whether a team of two elections officials should administer voting for more than one polling division and to determine staffing levels at polling places.

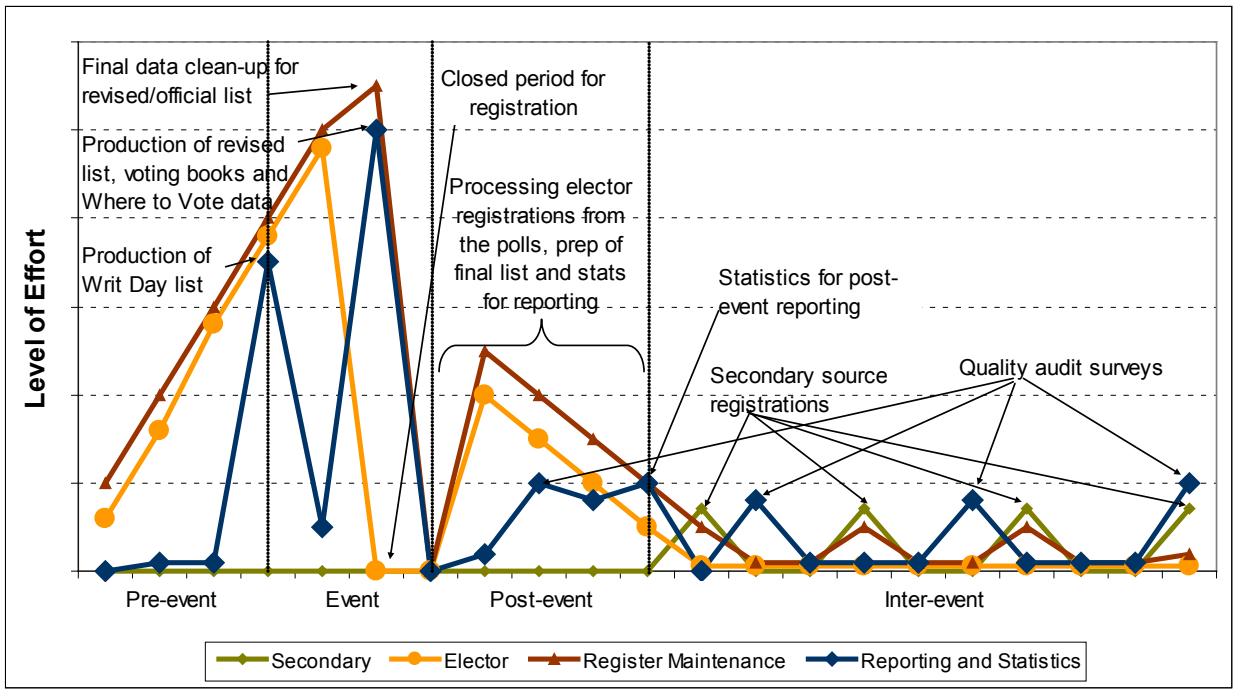
4.3.3.8 Participation statistics for **Events** and external stakeholders

Participation statistics are used by electoral agencies, political scientists and the media to better understand factors influencing elector participation. Participation statistics are released to these stakeholders through Post-event Reports business processes in the **Events** business area.

4.4 Electors and the Business Cycle

Figure 12 provides a schematic representation of how the level of effort devoted to each of the four business processes in the **Electors** business area varies over the course of a business cycle. The picture is for an agency that maintains a permanent register that is updated through secondary sources during the inter-event phase.

Figure 12 Variation in Level of Effort Through the Business Cycle, By Elector Business Process



Below is a description of the main focus of activity in the **Electors** business area within each of the four business cycle phases: pre-event, event, post-event and inter-event.

4.4.1 Pre-event phase

Supported by communications processes from **Events**, including possible mailing of notifications to registered electors, and residence-to-residence registration activities conducted through enumerations, Elector Registration processes become more active throughout the pre-event phase. The data capture of the increasing volume of elector registrations may take place in field offices, or at the head office of the electoral agency. Register Maintenance processes increase in step as elector registrations are integrated into the register and exceptions are

identified and processed. The emphasis during the pre-event phase is on elector registrations and, depending on their availability, updates from secondary sources may be applied to the register during this phase.

4.4.2 Event phase

The preliminary list is produced on or around Writ Day, resulting in a peak in Reporting and Statistics processes at the beginning of the event phase. Elector registrations continue to climb during the first days of the event phase until the beginning of the closed period for registration. Just after the start of the closed period for registration, Register Maintenance peaks as efforts are made to resolve all data irregularities and to produce the highest possible quality registration data. Registered elector counts by polling division are monitored by Reporting and Statistics processes and polling divisions requiring split voting books are identified and communicated to the **Events** business area. The revised list and voting books for use in voting administration are produced by Reporting and Statistics processes after the close of registration. These lists may be produced in the field or at head office for distribution to the field.

4.4.3 Post-event phase

Electoral agencies that maintain a permanent register process all of the registrations received in conjunction with voting through Elector Registration and Register Maintenance processes during the post-event phase. This may be done in the field or at head office. Reporting and Statistics processes are active as well, as a final quality audit survey may be conducted and the final list is produced, along with final registration statistics for use by the **Events** business area in Post-Event Reporting.

4.4.4 Inter-event phase

Electoral agencies that maintain a permanent register will have some level of activity in the **Electors** business area during the inter-event phase as well. Because elector engagement is lowest during this phase, Secondary Source Registration processes are emphasized. Secondary sources are generally integrated into the register according to a schedule, with small spikes in activity occurring in Register Maintenance processes as exceptions are identified and processed. Elections Nunavut establishes registration stations at significant municipal elections to update registrations during this period. Each year during the inter-event phase a quality audit survey may be conducted to assess register quality, resulting in increases in effort in the Reporting and Statistics processes. Throughout the inter-event phase, lists of electors may be produced for various stakeholders. Elector Registration processes continue through the inter-event phase, although the volume of transactions is relatively low.

4.5 Relationship of Electors Business Area to Other Business Areas

Figure 7 on page 19 provides a high-level view of how the **Electors** business area relates to other business areas within the organization. Inputs and outputs are exchanged directly between **Electors** and two other business areas: **Electoral Geography and Events**.

Electors business processes are tied to **Electoral Geography** by the fundamental rule that each elector is associated to one physical address and one vote. Electors can vote only once in provincial, territorial and federal elections, even if they own more than one property in a given jurisdiction. Each elector must be associated with a single physical address that falls within the boundaries of the jurisdiction. Elector addresses are captured through the Elector Registration

and Secondary Source Registration business processes in the **Elector** business area and then transferred to **Electoral Geography** for geo-coding and assignment to an electoral district and polling division.

The **Electors** business area receives registrations collected through enumerations and registration at the time of voting (**Events).** These registrations are data captured through the Elector Registration business processes within **Electors**.

The Reporting and Statistics processes in **Electors** provide lists of electors, voting books, registration and participation statistics, and custom mailing lists of registered electors to **Events.** In return, the Reporting and Statistics business process receives participation data from **Events** and combines this with information available through the register to produce detailed participation rates by age, gender and geography. Register quality, participation and registration statistics are provided to **Events**, where the information is used to shape communications and outreach activities.

4.6 Current Issues Affecting Electors Business Area

4.6.1 Related to the register of electors

4.6.1.1 Duplication of effort between jurisdictions

By definition, there is duplication between Elections Canada's National Register of Electors and the efforts of every jurisdiction within Canada that is working independently to create and/or maintain its own register. On a smaller scale, there is duplication of effort within every province or territory where local-level governments work independently to create and/or maintain their own registers. While some jurisdiction-level efforts are required to address differences in the qualifications to vote, there is clearly potential scope for efficiencies to be realized through the sharing of registration data between jurisdictions with a common elector base.

To the extent that local legislation limits the range of secondary data sources that can be accessed for maintenance of a permanent register and/or requires residence to residence enumeration, the value of sharing data between jurisdictions is diminished. Significant resources are required to create and maintain a register of electors whether through enumeration or sharing of registration data and it is, therefore, unlikely that electoral agencies will invest resources in both.

4.6.1.2 What to do between elections

The question of whether to maintain a permanent register or to create a new temporary list just prior to an event is a source of considerable debate in the electoral community. All electoral agencies experience significant elector apathy between events and some question whether the marginal improvement in register quality associated with updating the register on a continuous basis justifies the significant investment of resources in these activities.

It is certain that register quality will decline rapidly if no maintenance efforts are undertaken. Elections Canada estimates that about 17 percent of elector information changes every year.[9] Electors are dynamic; just as some become eligible to be on the register by turning 18 or achieving a citizenship or residency requirement, others move out of the jurisdiction or die and must be removed from the register. In addition, electors move within the jurisdiction and change their names and this information needs to be updated to maintain the currency of registration information.

Arguments for maintaining a permanent register include the need to be prepared on short notice for general elections in minority government situations and for by-elections, and to provide a list of electors for another jurisdiction's election, for non-electoral purposes permitted by legislation (e.g., jury selection lists), or for recall and initiative events. As well, some believe that residence-to-residence enumeration cannot be relied upon as the sole or main source for a register of electors because this approach has become increasingly ineffective and expensive over the years.

4.6.2 Related to Elector Registration processes

4.6.2.1 Accessibility of elector registration

Over the last five years, there has been a trend toward making registration more accessible to electors. In 2004, Elections BC was the first agency to make elector registration, updating and confirming accessible online 24 hours a day, 7 days a week. In the lead up to B.C.'s 2009 General Election, functionality was added to the online system to permit online removal of electors from the register. Elections Alberta introduced an online registration service for first-time registrants in 2007. Electoral agencies are working to expand the "channels" through which new elector registrations, updates to existing registrations, confirms and removes may be submitted. The current range includes: online, telephone, and paper delivered in person, by mail or fax.

4.6.2.2 Registration at the polls

Registration at the polls is an option in all jurisdictions in Canada, except Québec and Yukon. In spite of efforts to have the highest quality register possible prior to the start of voting, electors are increasingly choosing to bundle registration with voting and do both tasks at the polls. At the federal level, the number of electors registering at the polls in 2006 was almost double the 1997 volume.[10] This trend has consequences for the efficiency and cost of voting administration, the effectiveness of the list of electors as a tool for ensuring the integrity of the voting process, and the usefulness of the list as a communications tool for candidates and political parties during an election.

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[9] Elections Canada (2007). *Description of the National Register of Electors*. Retrieved June 22, 2009, from Elections Canada website: http://www.elections.ca/content.asp?section=ins&document=national&dir=nre&lang=e&textonly=false

[10] Molnar, R. (2009). *Operational Aspects of Canada's National Register of Electors* [PowerPoint slides]. Presented June 4-5, Toronto.

4.6.2.3 Registration of electors who do not have a home

The requirement to provide a residential address to register has the potential to exclude people who do not have a home. At the national level, in B.C. and Ontario, electors may register using the address of another location where they sleep or eat, such as a shelter or soup kitchen. In the United States, electors with "non-traditional" addresses who wish to register for a federal election may draw a map to indicate where they live.[11] A person living on the street could identify a street corner or a park bench, for instance, as their home base. This is acceptable for registration purposes because it ties the person to a point on the ground and allows them to be assigned to an electoral district and polling division.

4.6.2.4 Residency rules

Electoral legislation defines rules for determining where a person is resident for purposes of elector registration. A person can only be resident of one place at a time and that place is usually where they live, or where they intend to return when absent. There are specific provisions for students who are attending school away from their family home and individuals incarcerated in penal institutions. Students are permitted to select either their school address or their home address for registration purposes. Incarcerated individuals are not considered to be residents of the penal institution; when registering, they must use an address where they previously resided or where a spouse, parent or dependents currently reside. Issues sometimes arise when individuals currently residing at an address identify that another individual, who does not currently reside at their address (e.g., an incarcerated person), is using their address for elector registration. In this situation, elector registration policies could both permit an elector to register at an address, and also permit a second-party registered elector at that address to set the first elector's registration to a status of inactive.

4.6.3 Related to Secondary Source Registration and Register Maintenance processes

4.6.3.1 Rationalization of secondary sources

The business processes associated with integrating new data into the register and identifying and processing exceptions currently involve some degree of manual intervention. This is particularly the case with secondary sources of registration information, which must be normalized prior to integration into the register. Given the need for manual review to ensure successful integration, some electoral agencies are undertaking reviews to identify the optimal combination of secondary sources and timing of their application to the register to maximize the benefit to cost ratio.

4.6.3.2 Privacy of elector information

Electoral agencies need to collect some personal information from residents in their jurisdiction in order to determine whether they are eligible electors and to maintain the integrity of the register of electors. The security of the information held by electoral agencies must be ensured by appropriate safeguards. In terms of data sharing between agencies, all electoral agencies need

[11] National Law Centre on Homelessness & Poverty. Voter Registration for Homeless People: Legal Rights. September 21, 2009. http://www.google.com/search?q=voter+registration+homeless&rls=com.microsoft:en-ca:IE-SearchBox&ie=UTF-8&oe=UTF-8&sourceid=ie7&rlz=1I7DACA_en-GB.

to ensure that their own data handling practices adequately protect the privacy of electors and also that their data sharing partners' practices are held to the same standard.

Electors are becoming increasingly concerned with identity theft issues and electoral agencies are starting to see a rise in electors opting out of remaining on the register after voting. Concerns have been expressed about the security of electors' personal information when electronic and/or paper copies of the list are distributed outside electoral agencies to political parties, elected members, candidates, Returning Officers, enumerators, poll workers and other government departments.

In 2009, the Federal Privacy Commissioner for Canada reported that the federal list of electors is a potential source of information for illegal activities such as identity theft. A recent amendment to the *Canada Elections Act* requires Elections Canada to include registered electors' full date of birth on lists distributed to Deputy Returning Officers and Poll Clerks. The rationale for including birth date information on the list of electors used in voting administration is to assist poll workers in identifying electors attempting to vote more than once. However, the Privacy Commissioner found that the inclusion of date of birth and a unique elector identifier on lists of electors used in voting administration at the federal level poses a risk to Canadians that their information will be used for purposes other than those permitted by law.

4.6.4 Related to Reporting and Statistics processes

4.6.4.1 Participation statistics

Throughout Canada, there is concern about elector apathy and declines observed over the last 20 years in participation rates, particularly among the youngest age groups. Many jurisdictions are conducting post-event elector and non-elector surveys and while these may be helpful for improving our understanding of factors that underlie voting behaviour, they are not an accurate source of information for participation rates. By combining information from the polls about who voted with the register of electors, a rich and accurate source of participation data can be created and tabulated to provide participation rates by gender, age group, electoral district, and polling division. Elections BC and New Brunswick currently use this approach to record participation data for all electors and Elections Canada does this for a sample of polling divisions.

4.7 Electors During the Next Ten Years

4.7.1 A new degree and nature of sharing

Over the last ten years, the degree of sharing of elector data between jurisdictions with a common elector base has grown steadily. This is a corporate priority for Elections Canada, which has signed data-sharing agreements with 60 electoral agencies at the provincial, territorial and municipal levels.

A combination of factors is creating favourable conditions to increase established levels of sharing still further over the next ten years.

- the Common Data Model developed by the Electoral Technology Accord (ETA) Working Group provides a foundation for sharing.

- sharing of data will reduce duplication of effort and ease budget pressures.
- there are profound differences between agencies in terms of their size and resources and duplication of effort is not sustainable.
- overall, all agencies are becoming more technologically sophisticated in terms of how they manage their elector registration data.

During the next ten years, it is anticipated that more partnerships will develop between jurisdictions that share a common elector base. These partnerships will be characterized by a strategic division of labour. Decisions will be made about what register maintenance services larger jurisdictions are best positioned to provide, and where smaller jurisdictions can add the most value. For instance, at the federal level, Elections Canada applies updates to the NROE using data from the Canada Revenue Agency and Citizenship and Immigration sources, as well as motor vehicle and vital statistics from provincial and territorial sources. As such, it may not be efficient for smaller jurisdictions to duplicate these efforts. On the other hand, smaller jurisdictions, particularly municipalities, may be best positioned to add value in the **Electoral Geography** business area by maintaining an accurate representation of settlements, the road network, and a current and complete address register.

These partnerships will also not be restricted to updates and removes of electors already included in a jurisdiction's register. They will be expanded to permit the inclusion of new electors, subject to eligibility requirements, based on the elector's inclusion on another register. For instance, in the case where a province has a residency requirement, it would add a new elector to its own register from the NRoE, but flag it to become active when the residency period is satisfied. Alternatively, Elections Canada could maintain flags for provinces with residency requirements in the NROE.

Jurisdictions will continue to share data received through their own enumerations, by-elections, general elections and referendums with others that share a common elector base.

4.7.2 Common systems to support registration

It is expected that electoral agencies will work together to develop systems to collect and manage elector data. The information technology supporting electoral administration in Canada is becoming increasingly sophisticated. It is also very time-consuming and expensive to develop. Given the history of sharing and the substantial overlap in business requirements across Canadian jurisdictions, there is a strong business case for the shared development of systems to support elector registration and the management of elector data.

4.7.3 Automation of registration and elector authentication

Over the next ten years, more Canadian electoral agencies will modernize the registration process by making it available online. Elections BC and Elections Alberta already have online registration applications, with Elections BC's system permitting new registrations, updates, confirms and removes, and Elections Alberta's currently accepting first-time registrants.

Online registration makes sense from a number of perspectives. Access to computers is virtually ubiquitous among the Canadian population and people simply expect to be able to conduct functions like elector registration online. From an elector's perspective, online registration

improves accessibility because it can be done at any time of the day or night and from any location with a computer. From the agency's perspective, administering registration processes online reduces the number of calls and labour-intensive elector registration transactions during an event. The elector registrations received through the system can be merged into the register of electors in a batch process, similar to Secondary Source Registration.

Introducing online registration involves overcoming some significant challenges related to legislation, privacy, elector authentication and information technology infrastructure. Online registration systems developed over the next ten years will be forward looking in the sense that they will be designed for integration with e-voting. The integration of online registration with voting demands even more rigor around authentication processes, especially given current trends to require electors to show identification at the polls. Discussions are focusing on the merits of using some form of digital authentication relative to the shared secrets approach, which is currently used by Elections BC and Elections Alberta in their online registration systems.

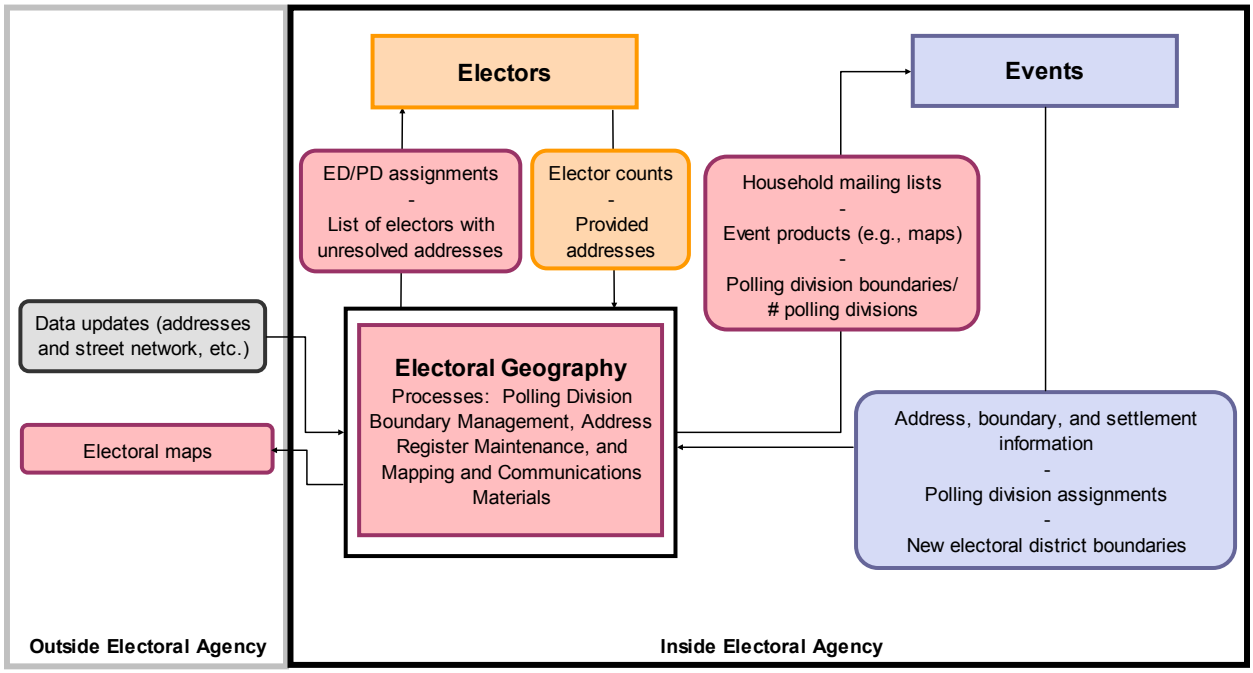
5.0 ELECTORAL GEOGRAPHY

This chapter provides an overview of the business processes and current and future issues impacting the **Electoral Geography** business area.

The **Electoral Geography** business area plays a vital role in ensuring the integrity of the electoral process by identifying the electoral district and polling division that correspond to provided addresses from the **Electors** business area. The **Electoral Geography** business area receives address, street network and mapping data from a variety of external and internal sources. Address data is stored in the address register, which is a complete listing of all known residential and non-residential addresses in the jurisdiction. **Electoral Geography** processes also adjust polling division boundaries to ensure that they comply with legislation, maximize accessibility to polling places, and address the needs of stakeholders. The data managed by **Electoral Geography** are used to create household mailing lists for **Events** and a number of map and street network products for use by external stakeholders and the **Events** business area.

Figure 13 shows how the **Electoral Geography** business area relates to other business areas within the electoral agency and to external stakeholders through inputs and outputs.

Figure 13 Electoral Geography Business Processes and Interactions



5.1 Overall Objectives for Electoral Geography Business Area

1) To develop and maintain polling division boundaries that satisfy legislative requirements and enhance the accessibility of polling places to electors.
2) To accurately and efficiently derive physical addresses from provided addresses and assign physical addresses to electoral districts and polling divisions.
3) To maintain a current and complete register of physical addresses for residential and non-residential properties, along with their electoral district and polling division assignments.
4) To maintain comprehensive base geography data regarding settlements, rivers, roads, landmarks, local government and other boundaries, etc.
5) To create user-friendly, accessible maps and other geography products that serve information to the electorate and other stakeholders, such as where to vote, name of electoral district, elected member, etc.

5.2 Electoral Geography Business Area Background

5.2.1 Electoral districts

At the national and provincial levels, jurisdictions are divided into a set of mutually exclusive and collectively exhaustive smaller geographic areas variously referred to as electoral districts, electoral divisions, constituencies, or ridings. In an election, a single candidate is elected to represent each electoral district's constituents in the jurisdiction's Parliament or legislature. There are currently 308 federal electoral districts in Canada. The precise placement of electoral district boundaries is defined by legislation.

The relationship between the number of federal and provincial/ territorial electoral districts in a given jurisdiction varies across the country. Provincial and territorial electoral districts tend to be smaller than federal electoral districts, especially for jurisdictions with relatively small populations. For instance, in Newfoundland and Labrador and Prince Edward Island, there are approximately seven provincial electoral districts for every federal district (Table 2).

Table 2 Number of electoral districts by jurisdiction

Jurisdiction	# federal EDs	# provincial / territorial EDs	Ratio provincial/territorial to federal EDs
Canada	308	n/a	n/a
Newfoundland & Labrador	7	48	6.9
Prince Edward Island	4	27	6.9
Nova Scotia	11	52	4.7
New Brunswick	10	55	5.5
Québec	75	125	1.7
Ontario	106	107	1.0
Manitoba	14	57	4.1
Saskatchewan	14	58	4.1
Alberta	28	83	3.0
British Columbia	36	85	2.4
Yukon	1	18	18.0
Northwest Territories	1	19	19.0
Nunavut	1	19	19.0

5.2.2 Electoral district boundaries

Because of shifts in population, the number of constituents represented by each elected member can change over time. Some electoral district populations grow rapidly, while others remain stable and still others grow smaller. For this reason, electoral district boundaries are periodically reviewed and adjusted to ensure that each elected member represents a similar number of people – a fundamental democratic principle known as representation by population. The process of changing electoral district boundaries is called redistribution.

In all Canadian jurisdictions except Québec, an independent electoral boundaries commission is established on a regular cycle (e.g., every decade) to review electoral district boundaries and to make recommendations to the Parliament or legislature for changes to the number of electoral districts, their names, and boundaries. In Québec, the Electoral Boundaries Commission (Commission de la representation électorale – CRE) is a permanent and independent standing Commission. The CRE acts in a neutral and impartial manner. The size of an electoral district is determined according to a population-based electoral quotient, plus or minus a variance as defined by local legislation (e.g., + or – 25%).[12] Electoral boundaries commissions are required to undertake public hearings on the proposed boundary changes. With the exception of Québec, where the decisions of the CRE are not subject to appeal or government approval, in other jurisdictions the members of the government consider and sometimes amend the proposals made by independent boundaries commissions before passing the boundaries into law. The new electoral district boundaries come into force upon dissolution of the Parliament or the Legislative Assembly, or before the next election.

[12] The electoral quotient is calculated by dividing the total population of the jurisdiction by the number of electoral districts, thus obtaining the average population per electoral district.

When new electoral district boundaries are introduced, electoral agencies ensure that each registered elector is assigned to the correct electoral district and they create maps displaying electoral district boundaries. Because of the size of the task and the low frequency with which it occurs, an electoral agency's work related to the redistribution of electoral district boundaries is considered to be an event (see **Events** business area).

5.2.3 Polling divisions

In almost all Canadian jurisdictions, legislation requires the establishment of a second set of boundaries within each electoral district to facilitate the administration of voting.[13] With consideration for municipal and other boundaries and geographic and human settlement features, agencies define a set of polling divisions or voting areas such that each boundary includes no more than a specified number of electors. In B.C. for instance, no more than 400 registered electors are included in each polling division.

Using an example from B.C., Figure 14 shows the relationship between polling divisions and voting administration. During an election, each polling division along with the electors with physical addresses within its boundary, is assigned to a single polling place. Within the polling place, a polling station is established for each assigned polling division. Each polling station has a voting book showing all of the registered electors with physical addresses within the polling division they are serving. The limit on the number of electors per polling division reflects what is considered to be a manageable workload for two election officials staffing a polling station on Voting Day.[14]

5.2.4 Polling division boundaries

Unlike electoral district boundaries, the placement of polling division boundaries is not defined by legislation. Electoral agencies are responsible for redistributing polling division boundaries to ensure that polling divisions include no more than the maximum number of registered electors, as defined by local legislation. Polling division boundary redistribution is an on-going operation that is performed in the **Electoral Geography** business area.

When new electoral districts are created, at least a partial redistribution of polling division boundaries is required. At a minimum, the agency must review all of the polling divisions along the new electoral district boundaries to ensure that polling division boundaries are contained completely within electoral districts. Polling divisions are also redistributed from time-to-time in response to new information about accessibility, residential developments, native reserves and population shifts.

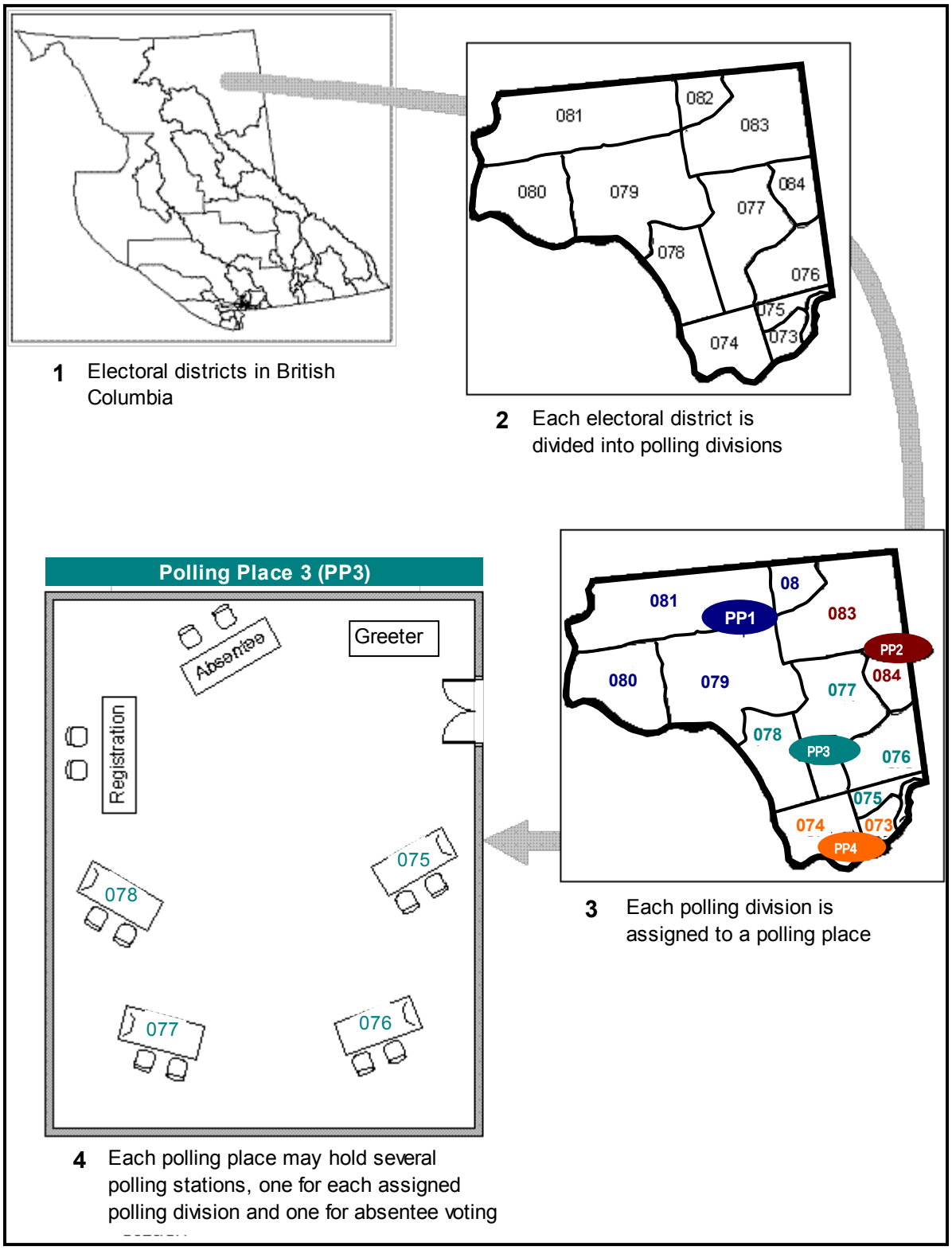
Voting results at the polling division level are used by political parties and candidates to structure their campaigns. Electoral agencies need to balance the desire of these stakeholders for consistency in polling division boundaries from one election to another, with the need to ensure

[13] Nunavut is the only Canadian jurisdiction that does not have polling divisions. However, Nunavut legislation places a limit of no more than 550 voters per polling station.

[14] Note that New Brunswick now uses a different method for organizing voting. Electors do not have to report to a *particular* polling station within the polling place, but can be served by election officials at any available polling station.

accessibility and to comply with legislation in terms of the maximum number of registered voters permitted per polling division.

Figure 14 Relationship Between Polling Divisions and Voting Administration



5.2.5 Types of polling divisions

Polling divisions are always contained completely within the boundaries of an electoral district. They are usually a geographical area defined by a continuous boundary that runs along major streets or rights-of-way. In dense, urban areas, a single, multi-unit building may form a polling division and this may be communicated on a map as a single point.

In some jurisdictions, long-term care facilities are defined as their own polling division and served by a mobile team of election officials who provide on-site voting services. If the facility is comprised of more than one building, then the collection of buildings may be defined as a single polling division, depending on the total number of residents. When a facility is defined as a polling division so that it can be served by a mobile voting team, it is called a site-based or special polling division.

Some jurisdictions define advance polling divisions by combining several regular polling divisions into a single, larger polling division. The shape of the advance polling division is derived from the shapes of the "child" polling divisions that have been combined. Advance polling divisions are assigned to polling places for the purposes of voting in advance of Voting Day.

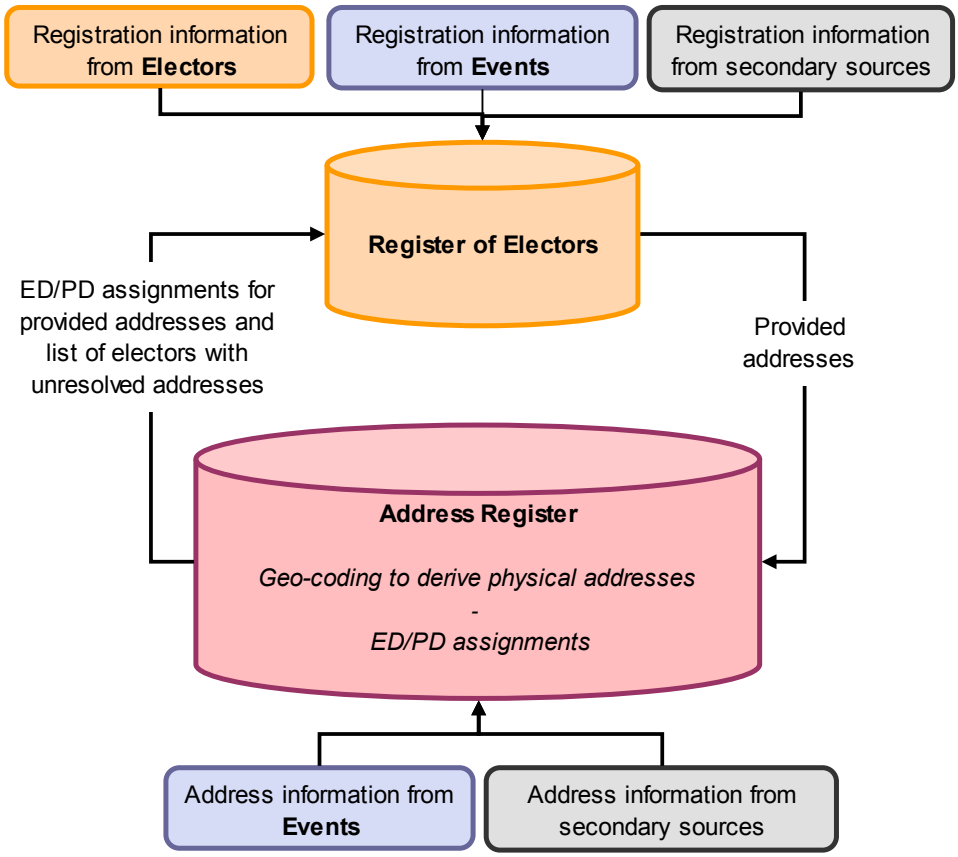
5.2.6 Relationship between the address register and register of electors

The **Electors** and **Electoral Geography** business areas are tied together by the close relationship between the register of electors and the address register. An address register for electoral purposes is a database of all known residential and non-residential addresses in the jurisdiction. On the residential side, the address register contains an entry for all known dwelling units, including less traditional living quarters, such as marina slips, trailer parks, homeless shelters, and illegal basement suites.

The address register is often referred to as the foundation for the register of electors. It is through the address register that an elector's physical address is derived and their electoral district and polling division assignments are made. Figure 15 illustrates the relationship between the two registers. Electors reside in dwelling units, which are described by the addresses provided by electors or secondary sources during registration. As the register of electors is updated, the provided addresses are checked against the address register to obtain their polling division and electoral district assignments. Through a process known as geo-coding, an elector's address is located on the ground relative to the street network and assigned a physical address (geographic coordinates). **Electoral Geography** processes identify the boundaries that apply to physical addresses and thus derive the polling division and electoral district assignment for each physical address and its associated elector(s). The address register returns the polling division and electoral district assignment for storage with the elector record in the register of electors. If an elector address cannot be assigned with confidence to an electoral district, the corresponding elector record in the register of electors must be set to a status of inactive.

A subset of dwelling units in the address register does not have any electors associated to it. These dwelling units are referred to as "empty addresses" and often form a target for enumeration.

Figure 15 Relationship Between Register of Electors and Address Register



5.2.7 Boundary sets

Polling divisions and electoral districts are geographically defined by boundary sets. While an individual event is always administered on one boundary set, electoral agencies may need to have multiple boundary sets active in their systems at the same time. For instance, agencies that administer events at different levels of government may have a boundary set for municipal elections that differs from the boundary set used for provincial elections. As well, agencies may be in the process of redistributing electoral district boundaries and still have to be able to support a by-election on the current boundary set. Electoral agencies also have requirements to maintain a history of boundary sets and elector assignments so that points in time can be re-created. As such, systems may need to accommodate multiple polling division and electoral district assignments for a given elector.

5.2.8 **Electoral Geography** data elements

The data that are captured, stored and used by **Electoral Geography** business processes come from a variety of sources. The following information is collected and/or derived for each address stored in the address register:

- jurisdiction-specific unique address identifier;
- elector identifier (this allows for a connection between the address and the elector record in the register of electors);

- physical address – GIS coordinates, status, status date, derived unit count (number of dwelling units at physical address), polling division and electoral district;
- legal land description – reserve description, legal land description (e.g., land district, district lot, block, township, lot type, etc.);
- dwelling unit – physical address of the unit (GIS coordinates), unit identifier (e.g., apartment number, unit type (e.g., basement suite), unit status, mailable type, registered elector count, projected elector count;
- building (these variables relate to the building – physical address of the building, building name, complex identifier); and
- street – name, type, direction, municipality and postal information.

Polling divisions and electoral districts are geographically defined by boundary sets. The following is a sample list of some of the data that is stored related to electoral districts and polling divisions in **Electoral Geography**.

- parent polling division identifier, where advance polling divisions are used
- electoral district code and name
- electoral district boundary set
- electoral district effective date
- electoral district end date
- electoral district amending date and reason
- polling division boundary set name
- polling division code
- polling division area description
- polling division effective date
- polling division end date
- polling division amending date and reason
- estimated count of electors in polling division
- polling division status
- polling division status date and source
- polling division boundary set type (federal, provincial, etc.)

In addition, **Electoral Geography** receives and maintains information pertaining to the jurisdiction's topography and watercourses, road and railway network, human settlements (subdivisions, new construction, addresses, condominiums, hospitals, schools, and long-term care facilities), and other boundaries (municipal, regional, school district, federal electoral district, etc.).

For more information about the specific data elements related to **Electoral Geography**, please refer directly to the 2006 Common Data Model.

5.3 Electoral Geography Business Area – Inputs, Business Processes, and Outputs

The **Electoral Geography** business area is described in this section in terms of its inputs, business processes and outputs.

5.3.1 Inputs to **Electoral Geography** business processes

Electoral Geography business processes receive inputs from the **Events** and **Electors** business areas, as well as external stakeholders. A brief description of the main inputs to the **Electoral Geography** business area is provided below.

5.3.1.1 Electoral district boundary changes from **Events**

Through Boundary Redistribution business processes in the **Events** business area, the electoral district boundaries that are passed into law are reflected in the agency's computer systems and maps. **Electoral Geography** business processes adjust polling division boundaries as necessary, and assure that all addresses in the address register are assigned to the correct polling division and electoral district.

5.3.1.2 Addresses from **Electors**

The **Electors** business area records addresses collected from electors through ongoing registration, registration from secondary sources, and registration in conjunction with voting. **Electoral Geography** derives the corresponding physical address through geo-coding processes, assigns the physical addresses to the correct electoral district and polling division, and returns this information to **Electors**.

5.3.1.3 Elector counts by polling division from **Electors**

The **Electors** business area provides counts of registered electors by polling division to **Electoral Geography** to assist in the identification of polling divisions that require boundary redistribution.

5.3.1.4 Confirmed field office and polling place addresses from **Events**

As Returning Officers identify the location of their field offices and their polling places, the addresses are provided to **Electoral Geography** so that they can be identified as such in the address register and represented on paper and electronic maps.

5.3.1.5 Polling division assignments from **Events**

The assignment of polling divisions to polling places takes place in the **Events** business area. This information is used by **Electoral Geography** in the creation of where-to-vote maps.

5.3.1.6 Settlement and other local information from **Events**

As part of their field work, Returning Officers provide information about local geography and new building to **Electoral Geography** (e.g., subdivisions, condominiums, schools, long-term care facilities, changes to the road network, etc.).

5.3.1.7 Data updates from external stakeholders

The **Electoral Geography** business area receives updates regarding the placement of local and regional government, school district, and federal electoral district boundaries, changes to the street network, and new features, such as parks, schools, long-term care facilities, etc. from external stakeholders.

5.3.2 Business processes in **Electoral Geography**

There are three business processes in the **Electoral Geography** business area:

1. Polling Division Boundary Management
2. Address Register Management
3. Mapping and Related Products

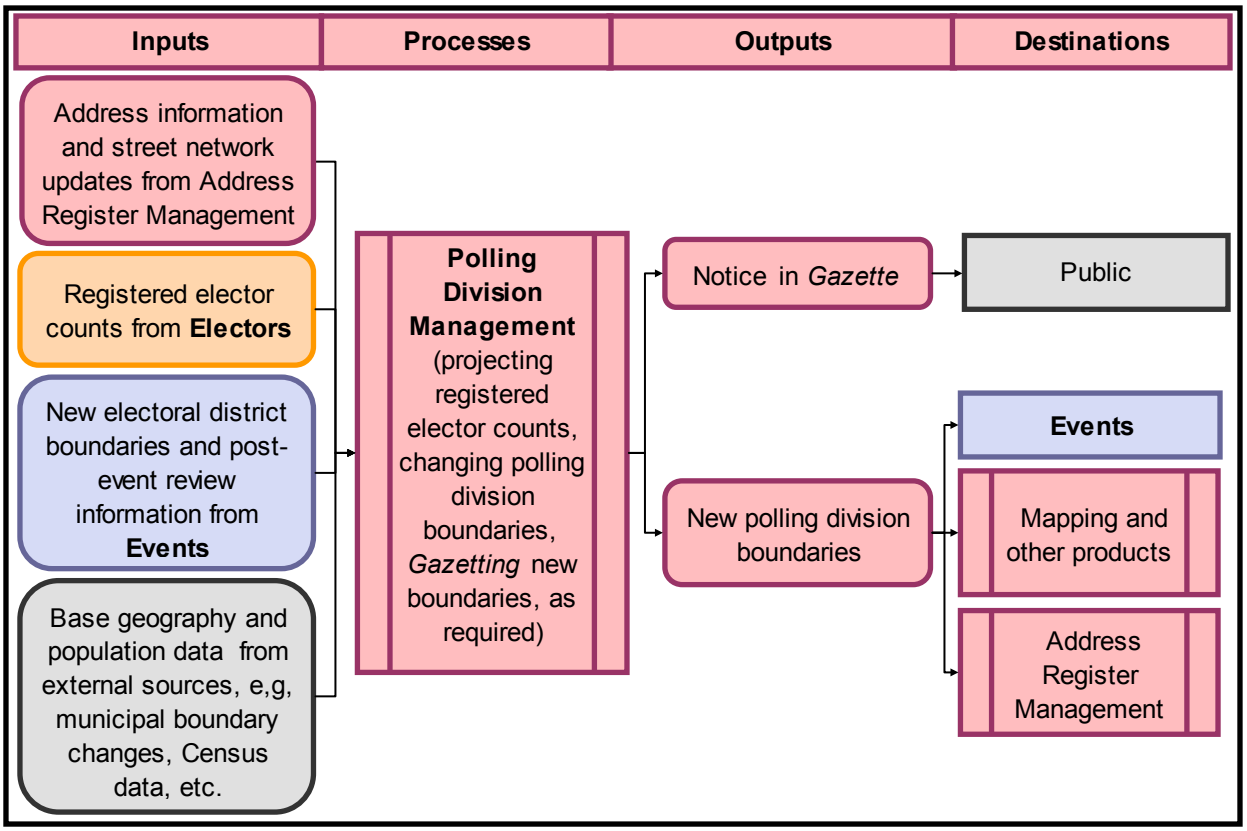
What follows is a description of the business processes in terms of inputs to the processes, what is produced as a result of the processes and where those outputs are used.

5.3.2.1 Polling Division Boundary Management

Polling divisions are an important building block of electoral administration in almost all Canadian jurisdictions. Legislation limits the number of registered electors in a polling division because of the direct linkage with the workload of election officials who administer voting and counting on Voting Day. Polling Division Boundary Management processes are concerned with adjusting polling division boundaries to maintain compliance with legislation and to maximize accessibility to polling places.

Figure 16 summarizes the inputs, outputs and the destinations for Polling Division Management processes.

Figure 16 Polling Division Management - Inputs, Outputs and Destinations



Triggers for a review of polling division boundaries to determine if redistribution is required include:

- redistribution of electoral district boundaries;
- an upcoming event;
- changes in the street network or other factors influencing accessibility;
- new residential developments;
- elector, political entity, and Returning Officer feedback; and
- other factors, such as changes in municipal boundaries, new schools that will be used as polling places, etc.

One of the key factors driving the placement of polling division boundaries is the count of registered electors. To identify polling divisions that require redistribution, some agencies use an estimate of the number of *potential* electors in a polling division, rather than the actual number from the register of electors. Information may be combined from a variety of sources to obtain this estimate. For instance registered elector counts can be combined with information about the number of "empty addresses" to produce an estimate of the number of potential electors (see example below). It may be preferable to use the potential value, especially in high-growth areas, so that polling division boundaries are set conservatively, thereby reducing the frequency of redistribution and ensuring that election officials have a manageable workload on Voting Day.

Example calculation of number of *potential* electors

Information for polling division 079
Number registered electors = 350
Total dwelling units in polling division = 250
Total dwelling units with associated electors = 200
Total empty residential addresses = 50
Number of registered electors / dwelling with registered electors = 1.75

Formula

$$\left(registered\ electors + \left(\frac{registered\ electors}{dwelling\ units\ with\ registered\ electors} \times empty\ addresses\right)\right)$$

Example

(350+(1.75*50))=437.5

There are 350 registered electors in polling division 079. Based on the number of empty addresses (50) and the average number of registered electors per dwelling unit (1.75), there are potentially 438 electors in polling division 079.

Note
This approach works well when a polling division has relatively consistent housing stock. It would not work well if, for instance, a condominium tower was added to an area of single-family homes.

In addition to the number of electors, polling division boundaries must be sensitive to other boundaries (e.g., electoral district, municipal, school board), water and transportation routes, the locations of commonly used polling places, and cultural considerations. As these factors change, polling division boundaries may need to be adjusted. For instance, the development of a new highway through the middle of an existing polling division might result in a boundary change so that residents do not have to cross the highway to attend their assigned polling place. As another example, First Nations communities would generally prefer to establish on-reserve polling places, but the surrounding community is often uncomfortable with voting on a native reserve. The solution is to align the polling division and reserve boundaries, even if the number of registered electors on the reserve is well below the legislated maximum. An on-reserve polling place is established for the polling division that corresponds to the reserve and the surrounding community is defined as a separate polling division and assigned to an off-reserve polling place.

Some jurisdictions (e.g., B.C.) are required to publish a notice in the *Gazette* whenever polling division boundaries are redistributed and to update all of their map products to reflect the new boundaries. These jurisdictions tend to redistribute polling division boundaries in large batches about one year before a general election. Those jurisdictions that are not required to *Gazette* their polling division boundaries (e.g., Ontario) are more likely to adjust polling division boundaries at regular intervals and in smaller batches as new information becomes available.

When map products have been produced for an election, polling division boundaries are not modified again until after the election. However, new residential developments continue and some polling divisions may exceed the maximum number of registered electors permitted under legislation at the time of the election. These situations are resolved in the **Electors** business area by establishing two or more polling stations for a single polling division and splitting the voting book into roughly equal sections (split voting book).

Destinations
New polling division boundaries are used by Mapping and Other Products processes in **Electoral Geography** to produce updated map products. In some jurisdictions, these map products need to be produced to coincide with a *Gazette* announcement. New polling division boundaries are also an input to Address Register Management so that the polling division assignment of affected addresses can be updated. For planning purposes, it is important that the **Events** business area is notified of adjustments to the number and arrangement of polling divisions. The number of polling divisions, for instance, is a key driver of the event budget because of its relationship to the number of election officials and polling places required.

5.3.2.2 Address Register Management

Address Register Management processes maintain the list or database of the jurisdiction's known residential and non-residential addresses, their associated physical coordinates or geo-codes, electoral district and polling division assignments, as well as descriptive facility information (e.g., long-term care facility, school, etc.).

As illustrated in Figure 17, new addresses are received from a variety of sources.

1. When electors register or when the register of electors is updated through secondary sources, the provided addresses are checked against the address register. If the addresses

are identified as new to the address register, they are geo-coded to derive their corresponding physical address and assigned to an electoral district and polling division. The volume of addresses from **Electors** is particularly high during enumeration events and the post-event period when registrations taken in conjunction with voting are processed.

2. New address information and/or descriptive detail relating to existing addresses, is received from the **Events** business area. Facilities that are used as polling places are identified as such in the address register, as are field offices.

3. Electoral agencies rely on secondary sources of administrative data to maintain the coverage and currency of the address register, particularly during the inter-event period. Secondary sources of address data include municipalities, electoral agencies with over-lapping jurisdictions, telephone and utilities companies, assessment authorities, etc.

   While secondary sources are important, they have been designed to support a distinct set of business requirements and often have short-comings from an electoral business perspective. For instance, address registers maintained by transportation ministries tend to focus on the front-door address that is served by a public road and tend not to include the addresses of units within a building or communities serviced by private roads, such as trailer parks. Assessment authorities are a reliable source of information about the use of a parcel of land because this is tied to the tax rate, but they may not be a reliable source of address information. Electoral agencies need to be aware of the strengths and weaknesses of address data from a variety of sources and the cost-benefit ratio of integrating each source with their own address register.

Figure 17 Address Register Management - Inputs, Outputs and Destinations

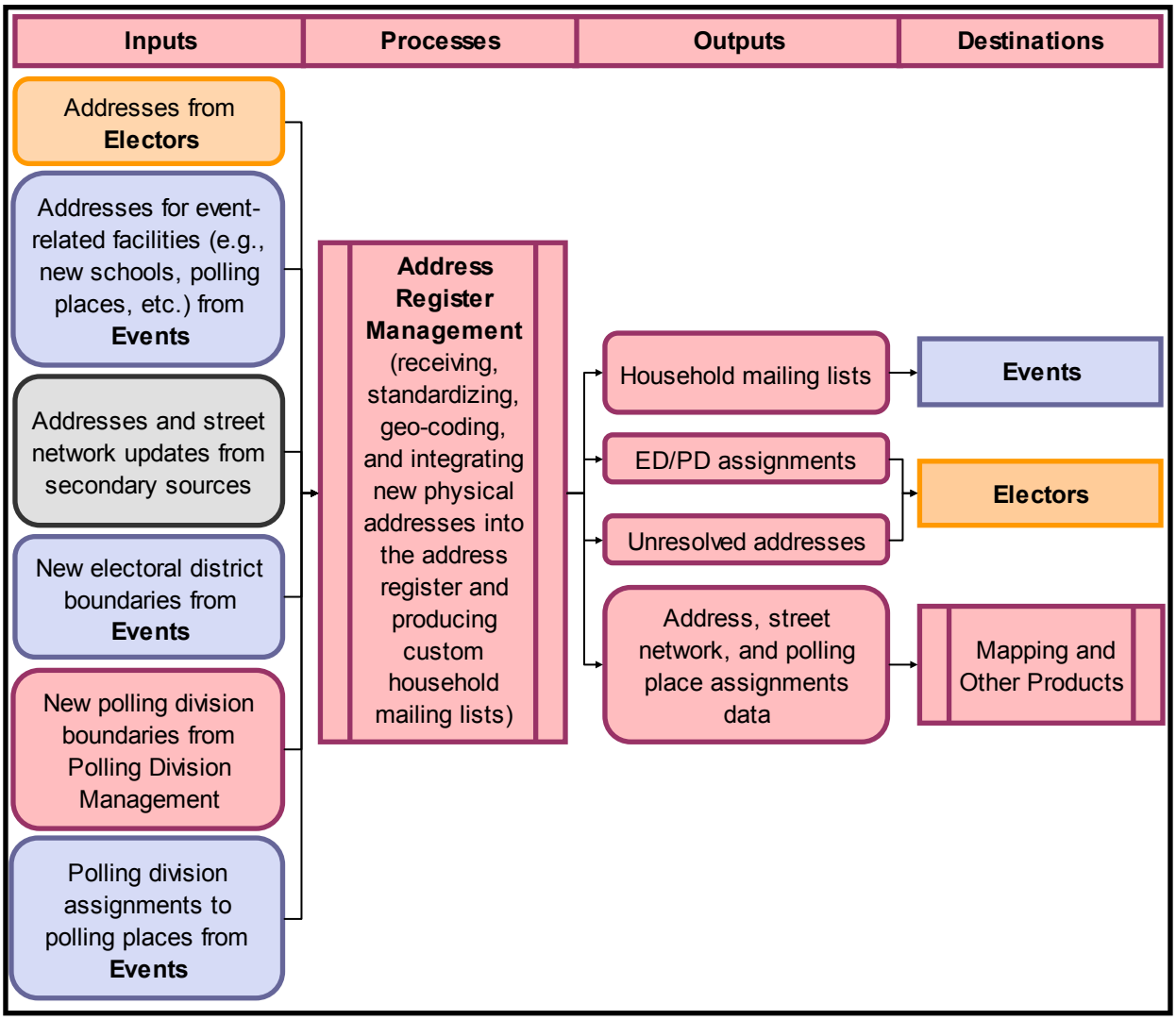
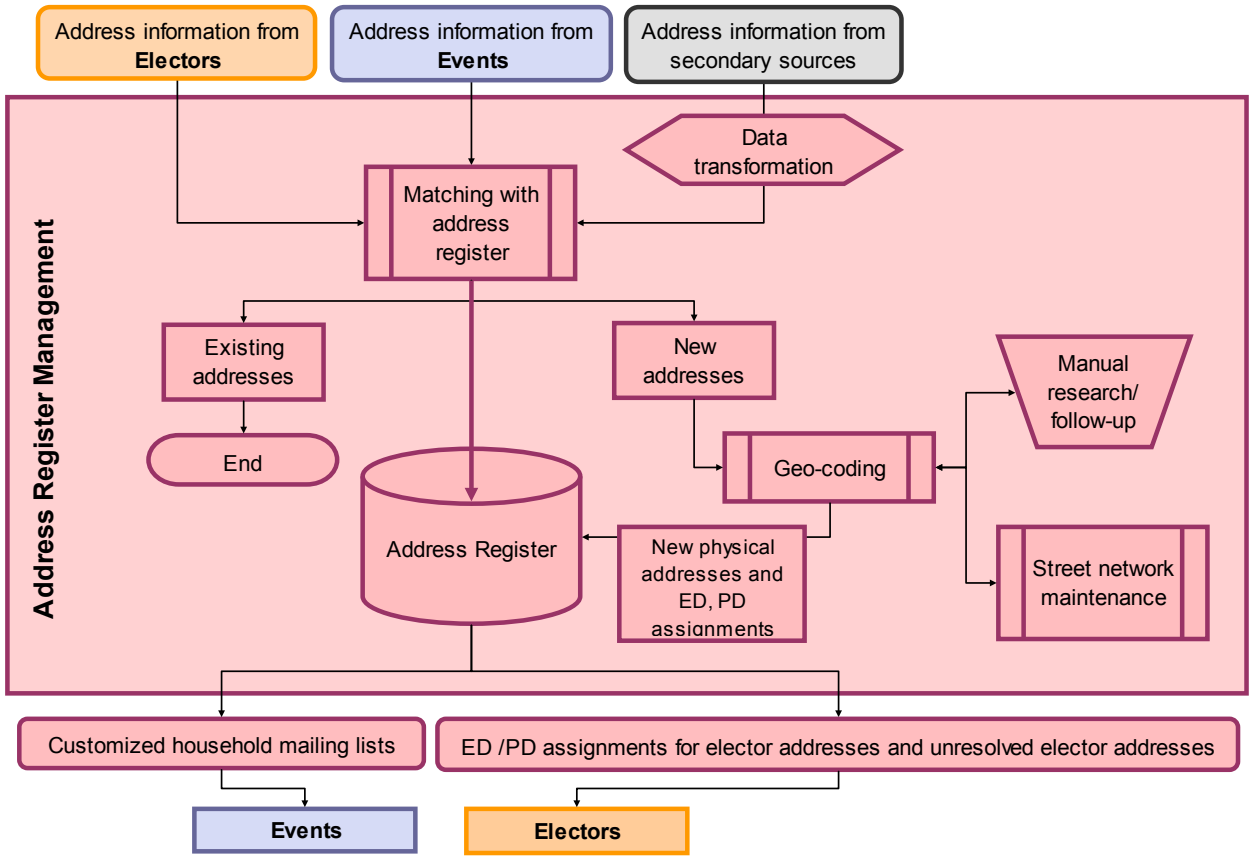


Figure 18 illustrates the flow of elector addresses after they enter Address Register Management processes from the **Electors** and **Events** business areas and secondary sources. Variations among secondary sources in how address data are defined mean that data may need to be transformed to ensure consistency prior to integration with the address register. As with the combining of elector registration data from secondary sources, data standards are important to streamlining the sharing of address information.

The matching processes identify incoming addresses that do not already exist in the address register. Elections Canada assigns a unique ID to each address in its register and this simplifies the matching process for provincial and territorial jurisdictions that use the national address register as a secondary source of address data.

Figure 18 Work Processes within Address Register Management



A significant amount of manual labour is involved in resolving addresses that cannot be located vis-à-vis the street network. Sometimes the street network needs to be updated to reflect new road construction. Addresses provided directly by electors are often the most difficult to resolve because they may contain an error, missing, or ambiguous information that makes it impossible to locate on the ground with certainty. Some examples of these situations are as follows:

- the address is missing a key piece of information that is required. For instance, a directional prefix or suffix is missing from a road name that requires one.
- the address contains a misspelled word or a commonly used name that is not the actual road name.
- the address is a mailing address (e.g., PO Box).
- the address contains an incorrect city or municipality.
- the address is for a street that has multiple names (e.g., Highway 12 or Pat Bay Highway). Some agencies maintain alias names that apply to the same street segment in order to resolve these issues efficiently.

To resolve address issues, the agency reviews all available information and attempts to correct errors. When this effort is unsuccessful, the agency may follow-up directly with the elector or

source of the address. The address is not accepted into the address register when the issue cannot be resolved. A transaction history showing the source, date and time of each address added to the register is maintained.

In cases where an address linked to an elector registration cannot be assigned to an electoral district with confidence, the corresponding elector registration must be set to a status of inactive in the register of electors. When the elector address was sourced from registration at the time of voting, the elector has already voted in the election. In this situation, the elector's registration is counted as part of the total registered electors who participated in the event, however, the record is set to a status of inactive for future events, pending clarification.

When electoral district or polling division boundaries are modified, the polling division and electoral district assignments of affected addresses are updated in the address register. For all physical addresses with electors associated to them, the appropriate electoral district and polling division assignment is sent to the **Electors** business area for storage in the register of electors. During an election, polling divisions are assigned to polling places. Polling place locations are reflected in the address register to allow for the production of where to vote maps.

The ability to produce custom reports to identify subsets of address records that satisfy specified criteria is very important to ensuring data quality. Queries need to be performed based on address-related variables and / or spatial criteria. The queries should be able to return partial or best matches for the search criteria.

Reports from the address register may also be used to produce customized household mailing lists to support Communications processes in **Events**. For instance, in B.C., information from the address register and register of electors is combined to identify dwelling units that do not have any associated registered electors. These "empty addresses" can then be sent a message that is customized to the registration characteristics of the dwelling unit: no one is currently registered at this address. Similarly, addresses associated with new construction can be sent a notice encouraging the residents to update their registration or to register. However, the strategy of targeting mail to the characteristics of the dwelling unit applies only to urban areas. Canada Post will not guarantee delivery of mail in rural areas unless it is addressed to a person.

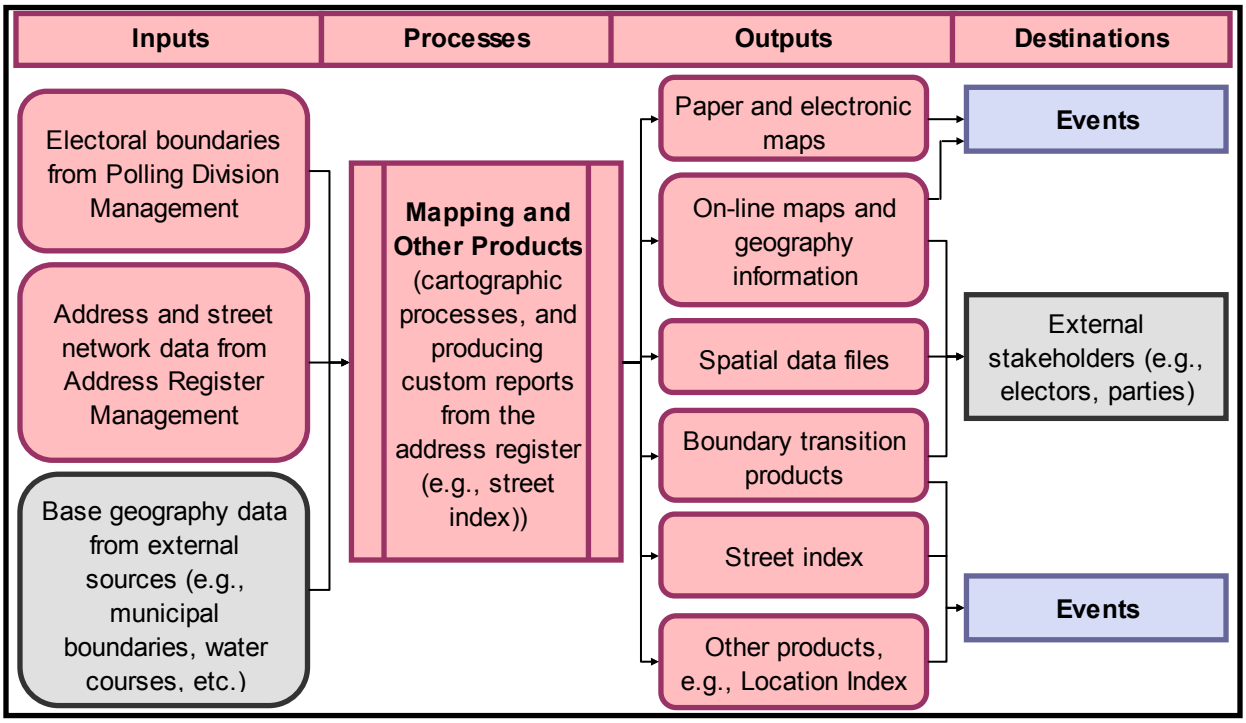
Destinations
The electoral district and polling division assignments of addresses with associated electors are shared with the **Electors** business area for incorporation into the register of electors. The **Electors** business area is also informed of any elector addresses that cannot be assigned with confidence to an electoral district so that these elector registrations can be set to inactive. Household mailing lists are an important output to support targeted enumeration efforts in the **Events** business area. The address register and/or the street network are the data sources used by Mapping and Other Products to create the street index and the on-line where-to-vote application.

5.3.2.3 Mapping and Related Products

Mapping and Related Products processes produce communications tools to support external stakeholders and the **Events** business area. This section describes the range of products produced and how they are used.

Figure 19 summarizes the inputs, outputs and the destinations for Mapping and Related Products.

Figure 19 Mapping and Related Products - Inputs, Outputs and Destinations



5.3.2.3.1 Paper and Electronic Maps

Using Geographic Information Systems (GIS) and cartographic applications, electoral maps are produced to show the relationship between spatial features, such as, rivers, lakes, islands, railways, hydro lines, settlements, First Nations reserves, schools, property divisions, parks, and electoral district and polling division boundaries. These maps are used extensively by all registered political entities. For instance, political parties and candidates analyze past election results by polling division and plan their campaign strategy by combining that information with the geographic distribution of polling divisions as displayed on maps. The maps are also used extensively by Returning Officers in preparation for and delivery of the election.

Several different types of paper and electronic (e.g., .pdf) maps are produced.

Jurisdiction-wide maps provide a high-level picture of the distribution of electoral districts within the entire jurisdiction, often with small inset maps to provide more detail in particularly dense areas. These maps usually display major cities and towns, water routes, relief, as well as major transportation routes.

Electoral district maps focus on a single electoral district and show the boundary of that electoral district within the context of surrounding electoral districts. These maps usually display human settlements, water routes, relief, parks and major transportation routes.

Polling division maps show the arrangement of polling divisions within an electoral district using a boundary marker that is different from the line used to delimit the electoral district

boundary. Each polling division on the map is numbered. When an apartment or condominium building has been defined as a polling division, it can be represented on the map as a single, numbered dot. In rural areas where electoral districts are geographically large, the electoral district may be divided into zones, with separate polling division maps for each zone. Some jurisdictions produce a booklet with a one-page map for each polling division. The level of detail shown is adjusted to the scale required to fit the polling division map to one page. For example, the map might show only major highways and roads for a rural polling division, but the complete street network, address points, and even address parcel information for a densely populated urban polling division.

Staff at headquarters, or Returning Officers and their staff, may mark polling division maps to indicate polling division assignments to polling places. Election officials may use these maps in conjunction with the street index to assist electors to identify their assigned polling place. A polling division map may also be included in a voting book to show the geographic area to which the list of electors in the book applies.

5.3.2.3.2 On-line maps/geography information

Most electoral agencies provide on-line, interactive tools and applications to assist electors to determine their electoral district and assigned polling place based on their address. These on-line tools perform a query against the address register and/or street network to provide the user with information that is customized to their particular address. The two main types of on-line tools are described below.

ED Locator

Elections BC has an on-line application that queries the street index based on a civic-style address and returns the name of the electoral district, a map showing the location of the address within the context of the surrounding area, the name of the currently elected member and a link to a statistical profile for that electoral district.

Where-to-vote

Several agencies make an online application available during an election to inform electors of the location of their assigned polling place based on their provided address. Upon entering an address, the system returns a map showing the location of the elector's residence and the location of the assigned polling place and advance polling place(s). These systems can query the address register and/or the street network.

5.3.2.3.3 Spatial data files

Electoral agencies provide spatial data in a format that can be used by geographic information systems (GIS) software. External stakeholders, such as the media, other government departments, political parties and academics, use spatial data files (also known as shape files) to incorporate electoral boundaries into their own mapping software.

5.3.2.3.4 Boundary transition products

When polling division or electoral district boundaries change, electoral agencies may produce a number of products to assist stakeholders to understand the implications of the changes for them.

Examples include:

- maps that show the new boundaries and the previous boundaries;
- conversion tables for each electoral district that show the relationship between polling divisions from the previous boundary set and polling divisions from the new boundary set (e.g., polling division 001 is now 001 and 008); and
- a transposition of votes table that estimates how the votes that each registered political party received at the last general election would be different under the new boundaries.

5.3.2.3.5 Other geography products

A couple of other geography products are produced for use by election officials in polling places during the delivery of an election, by-election or referendum.

Street Index

The street index is used by election officials when they are assisting electors to identify their polling division and electoral district. It is formatted as a table that relates address ranges of street segments to polling divisions and electoral districts. Election officials can look up the elector's address on the index, and then identify the corresponding polling division and electoral district. If the elector does not reside in a polling division assigned to the polling place and absentee voting is not an option, the election official can then use a map or table to identify the elector's assigned polling place based on their polling division.

Location Index

Elections BC also produces a Location Index to facilitate its model of "vote anywhere". The Location Index is used by election officials to determine the electoral district that corresponds to an elector's place of residence. It provides a cross-reference between settlement names and electoral districts and *vice versa*. It also contains an 8 ½" by 11" map of each electoral district, as well as inset maps with greater detail for selected urban areas. Proper use of the Location Index ensures that electors are shown the list of candidates for the election in which they are entitled to vote, regardless of where in the province they attend to vote. Electors who vote out-of-district are issued a write-in ballot and a list of candidates for the electoral district where they reside.

Destinations

The main destinations for Mapping and Other Products are external stakeholders and the **Events** business area. Political parties and candidates use map products to assist with campaign planning. Electors use the products to determine where to vote and to familiarize themselves with the boundaries of their electoral district in the context of the overall jurisdiction. Election officials in polling places use **Electoral Geography** products to direct electors to the correct polling place and station and, in B.C., to ensure that electors who are voting out-of-district are issued the correct list of candidates based on their provided address. Returning Officers and their staff also use electoral maps for planning purposes.

5.3.3 Outputs of **Electoral Geography** business processes

Below is a summary of the main outputs of the **Electoral Geography** business area.

5.3.3.1 ED/PD assignments for **Electors**

Electoral Geography returns the electoral district and polling division assignments to **Electors** for all physical addresses that have electors associated to them. These assignments are stored as part of the elector record in the register of electors.

5.3.3.2 List of electors with unresolved addresses for **Electors**

When **Electoral Geography** processes are unable to positively derive the physical location of an elector's provided address, the **Electors** business area sets the corresponding elector registration record to a status of inactive in the register of electors.

5.3.3.3 New polling division boundaries for **Events**

A change to polling division boundaries and/or the number of polling divisions is important planning information for the **Events** business area. In some jurisdictions, a notification regarding the new boundaries is printed in the jurisdiction's *Gazette* publication.

5.3.3.4 Household mailing lists for **Events**

Using the address register as a base, the **Electoral Geography** business area may produce household-based mailing lists to support enumeration efforts in urban areas.

5.3.3.5 Paper, electronic and on-line map tools and applications for political entities, electors, the media and **Events**

Various applications and tools in different formats are created to meet the needs of external stakeholders, as well as the **Events** business area. These include maps depicting electoral boundaries at various levels of detail and on-line where-to-vote applications.

5.3.3.6 Spatial data files

Electoral agencies produce spatial data files for use by external stakeholders. The data files (e.g., shape files), can be imported into GIS software (e.g., Arc, GIS or MapInfo) to represent electoral boundaries.

5.3.3.7 Boundary transition files

Several products may be produced to support stakeholders in understanding changes to electoral district and/or polling division boundaries. These products may include a map showing the previous and the new boundaries, a conversion table showing how previous polling divisions relate to new polling divisions, and a transposition of votes from the previous election under the old boundary set to an estimate of what the results would have been under the new boundaries.

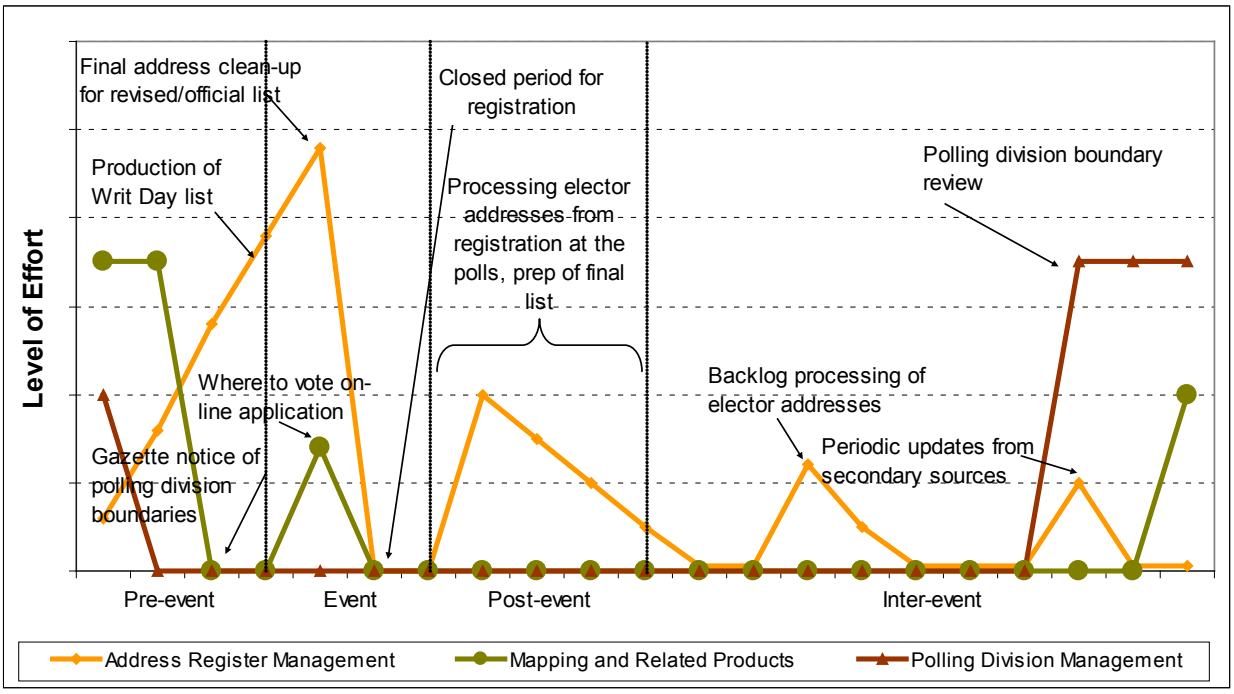
5.3.3.8 Other geography products for **Events**

The street index and the Location Index (in B.C.), are produced by **Electoral Geography** to assist election officials to identify an elector's electoral district and polling division assignment based on their address.

5.4 Electoral Geography and the Business Cycle

The level of effort invested in **Electoral Geography** business processes varies over the course of a business cycle as illustrated in Figure 20. The picture below is for an agency that processes polling division boundary changes in a batch before an election and publishes a notice of the changes in the jurisdiction's *Gazette*.

Figure 20 Variation in Level of Effort Through the Business Cycle, By Electoral Geography Business Process



Below is a description of the main focus of activity in the **Electoral Geography** business area within each of the four business cycle phases: pre-event, event, post-event and inter-event.

5.4.1 Pre-event phase

Polling division boundary redistribution is finalized during the pre-event phase. With the boundaries finalized, the production of maps and related products is concluded and the *Gazette* notice of the new boundaries published. As a direct result of enumeration and increased elector registration activity, Address Register Management processes become increasingly active during the pre-event phase. New registrations mean that new elector addresses need to be geo-coded and assigned to electoral districts and updated polling divisions.

5.4.2 Event phase

During the event phase, Address Register Management processes peak in terms of effort when the revised or official list for the election is produced. Mapping and Related Products also has a small spike in activity as data is prepared for the on-line where to vote application.

5.4.3 Post-event phase

Registrations completed in conjunction with voting are processed during the post-event phase as part of preparations for the final or scrubbed list. These registrations are often completed in a hurried atmosphere by election officials working for only one day. The address information requires a substantial amount of manual review and follow-up and a relatively high proportion of the addresses cannot be resolved to an electoral district with confidence. However, the electors voted in the election, so for purposes of the final list, their registrations must be included.

5.4.4 Inter-event phase

During the inter-event phase additional resources are expended on resolving elector addresses received in conjunction with voting. For those that cannot be resolved, the corresponding elector registration is set to a status of inactive in the register of electors. Periodic updates to the addresses register may also be incorporated from secondary sources during this period. Toward the end of the inter-event phase, the review of polling division boundaries and production of map products begins.

5.5 Relationship of Electoral Geography to Other Business Areas

Figure 13 on page 45 provides a high-level view of how the **Electoral Geography** business area relates to other business areas within the organization. Inputs and outputs are exchanged directly between **Electoral Geography** and two other business areas: **Electors** and **Events**.

Electoral Geography business processes are tied to **Electors** through the linkage between the register of electors and the address register. The dwelling unit of each registered elector is located with respect to electoral boundaries and the polling division and electoral district assignments are stored in the register of electors. Elector counts from the **Electors** business area assist **Electoral Geography** to identify polling division boundaries that need to be adjusted.

Electoral Geography receives a variety of inputs from the **Events** business area, ranging from new electoral district boundaries, to address and settlement information. In return, the **Events** business area receives household mailing lists to support enumeration, and event products, such as maps and street indexes.

External stakeholders provide address, street network, and other data updates. Electors and registered political entities receive products, such as paper and on-line maps.

5.6 Current Issues Affecting Electoral Geography Business Area

5.6.1 Related to polling divisions

In areas of the jurisdiction where the population density is relatively low, polling divisions may have to be geographically very large to approach the targeted number of registered electors per polling division. When setting polling division boundaries in these areas, there is a trade-off between ensuring accessibility of electors to polling places, and making efficient use of election official resources. That is, if the geographic size of the polling division is limited, the polling division may contain only a fraction of the number of electors that a team of two officials can serve on Voting Day.

The priority of the electoral agency is to ensure that polling places are accessible and, therefore, polling divisions in rural areas with relatively small numbers of registered electors are acceptable. **Electoral Geography** staff may find it challenging to know how to make trade-offs between the number of registered electors and the geographic size of a polling division when redistributing polling division boundaries. This is an area where additional guidance may be required from senior staff.

5.6.2 Related to address register

5.6.2.1 Duplication of effort between government agencies

As is the case with the address register, there is, by definition, duplication between Elections Canada's address register and the efforts of every jurisdiction within Canada that maintains its own register. Elections Canada shares address data with other jurisdictions. These exchanges can significantly reduce duplication and improve efficiency when:

- the provincial/territorial agency applies updates from different secondary sources than Elections Canada;
- address formats are standardized between the two agencies;
- addresses are uniquely identified by both agencies to allow for efficient matching.

There is also duplication of effort within jurisdictions between electoral agencies and other government departments and private companies that are maintaining address registers for their own business purposes. Address registers created for non-electoral purposes may provide useful information to enhance an agency's address register, but they often have deficiencies from an electoral perspective in terms of their coverage of less traditional dwelling units, such as illegal basement suites, marina slips, trailer parks, etc. The manual work associated with resolving secondary source addresses that do not match an existing record can be significant. It is worthwhile for agencies to review the ratio of processing hours to the number of newly identified addresses for each data source in order to better focus efforts.

The information needs of electoral agencies with respect to an address register are very particular, yet they are similar to those of another agency that maintains the most comprehensive address register in the country: Statistics Canada. Canada's national statistics agency needs a comprehensive address register to support administration of the Census and other household surveys. Statistics Canada shares a business requirement to identify the location of each and every dwelling vis-à-vis a particular set of boundaries, and thus to geo-code each address. Statistics Canada's address register contains over 12 million residential addresses, postal codes, and geographic location codes.[15] Most of the addresses on Statistics Canada's address register come from Census enumeration activities and during the inter-censal period, these addresses are updated using secondary sources. The issue for electoral agencies is that data collected by enumerators is subject to the *Statistics Act* and cannot be shared with other organizations. Thus, Statistics Canada is unable to share its address data with other jurisdictions.

Canada Post also maintains an address register and is focusing on improving the quality of rural addresses. Many of the rural letter carriers are approaching retirement and rely on personal knowledge of their assigned routes to deliver mail that may include only a rural route designation and a person's name. Canada Post's address register has relatively good coverage of municipal addresses.

[15] Statistics Canada (2006). *Statistics Canada Departmental Performance Report, for the period ending March 31, 2006*. Retrieved September 14, 2009, from http://www.tbs-sct.gc.ca/dpr-rmr/2005-2006/SC-SC/sc-sc-eng.pdf

5.6.2.2 Addresses that look like civic-style addresses, but are not

Some addresses, particularly in rural areas, comply with the standards of a civic-style address, but are actually the address of a post-office box for mail delivery. If the agency does not detect an issue with the address, the elector is coded to the polling division and electoral district of the mail drop location, rather than their dwelling unit. This presents a problem because the mail drop location may not be in same polling division and/or electoral district as the elector's dwelling unit. It can also impact enumeration mailings, as a letter might arrive in the mail box confirming the elector's registration at the mail box location, and one might appear at the elector's dwelling unit, indicating that no one is registered at that address.

5.6.2.3 Confusion between mailing addresses and addresses that identify a physical location

Many electors, particularly in rural areas, are not used to providing an address that identifies their physical location. For mailing purposes, they provide a rural route or post-office box number and their name. In spite of clear instructions on registration forms and training of registration officials, electoral agencies receive many registration forms that have a mailing address in the place where a civic-style address is required. A mailing address cannot be used to locate an elector with respect to electoral boundaries and, therefore, the associated registration is considered invalid until further address information is obtained.

5.6.2.4 Difficult address types

Certain types of settlements are consistently associated with the approximately 2 percent of all addresses that do not meet the standards of a civic-style address required for geo-coding. In order to geo-code an address, it must be related to the street network. The following types of settlements and developments tend to be associated with private roads or no roads, thus making it difficult to relate an address to a point on the ground:

- townhouse developments;
- islands without streets;
- marinas;
- lighthouses;
- trailer parks;
- First Nations reserves; and
- gated communities.

5.6.3 Related to Mapping and Other Products

5.6.3.1 Increased demand for on-line and interactive maps

Electors have grown accustomed to searching for a service on the Internet and finding a convenient map showing its location. These expectations are currently being met by many of the larger electoral agencies in the form of online, where-to-vote maps. Electoral agencies need to maintain comprehensive street network and address register data to provide this service.

5.7 Electoral Geography During the Next Ten Years

5.7.1 See: A new degree and nature of sharing, page 47

5.7.2 Google Earth interfaces

Expectations of the electorate and other external stakeholders around access to geography data continue to grow along with their comfort and experience with the web, personal digital assistants (PDAs), GIS enabled phones, and so on. Researchers and members of the media are currently requesting shape files, as well as newer GIS data exchange file formats, such as .kml files. These files are used to overlay electoral boundaries in the client's own GIS software, or in their map viewer of choice (MapQuest, Microsoft or Google).

There is a growing need for common provincial data related to municipal boundaries and roads, for instance, to be shared and integrated with these map services. Electoral agencies will need to ensure that they are using a common base GIS data. The expectation is that electoral boundaries can be integrated into the mapping systems so that electors can accurately determine their ED and potentially their voting place through various map providers. In order to do this, agencies may need to move from their own base information to the common provincial data sets. Some of the issues that may arise include:

- each agency must look at their data providers and determine if and when they will (or will not) move to the data standards to ensure a smooth ongoing data feed.
- confusion by voters may still arise if Google/Mapquest/Microsoft geocode addresses or interpret electoral data incorrectly.

5.7.3 Address Authority

A complete and accurate address register is an input to many public services and businesses (e.g., emergency services, utilities, etc.). In most jurisdictions, municipalities are the recognized authority on addresses because they are aware of development that happens within their boundaries. The challenge with relying on municipalities as the address authority is that they may apply different address standards and there may be large areas of the jurisdiction that are unincorporated.

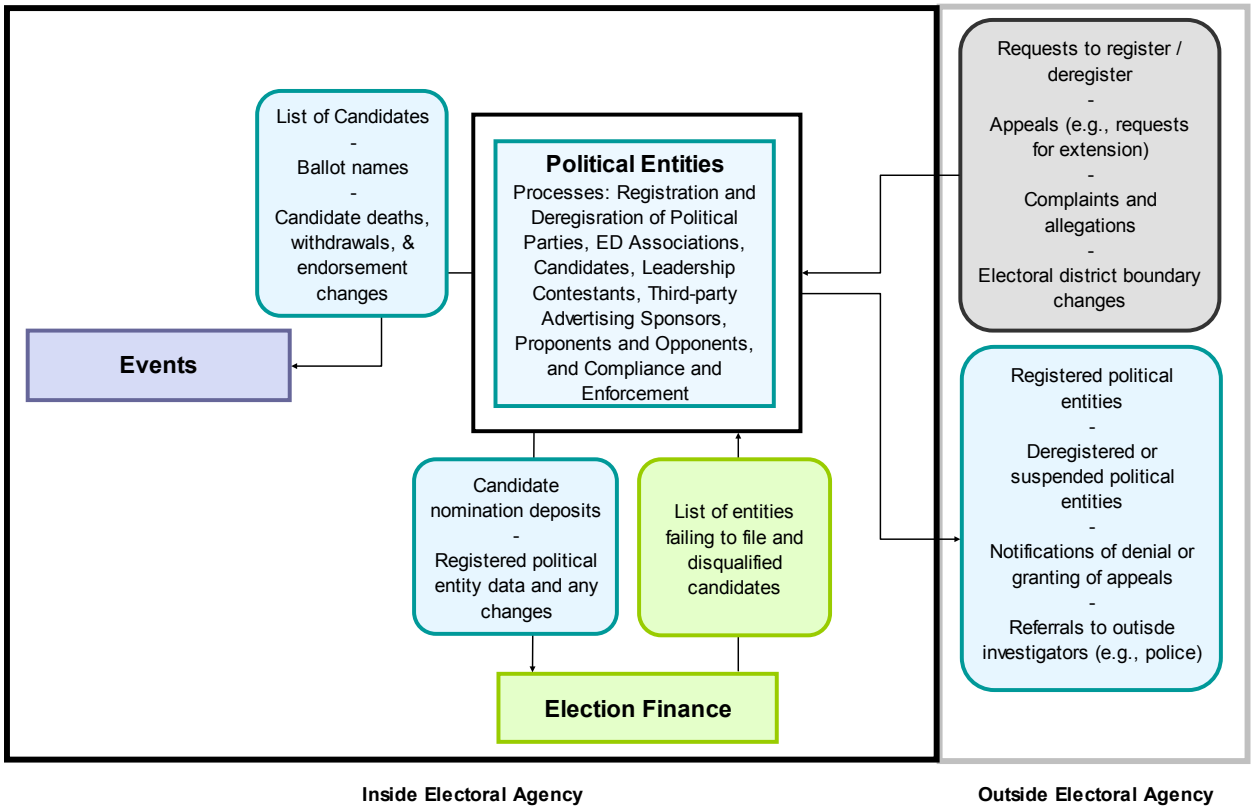
Over the next ten years, it is expected that address authorities will be established at the provincial or territorial level as opposed to the municipal level. These authorities will receive valuable address information from municipalities, compile it for the jurisdiction, and apply address standards. In Québec, the electoral agency (Directeur général des élections) is involved in the project named "Adresse Québec" with other governmental ministries and some municipalities. This project is the recognized address authority for the Québec government. Elections Ontario has proposed that it become the address authority for that province. In B.C., the Integrated Cadastral Information Society has, in partnership, created AddressBC: a provincial address registry for the province. AddressBC is sponsored by the Province of B.C., Telus, and Shaw Cable Systems. While central address registries such as this have the potential to reduce address maintenance work on the part of electoral agencies, it is critical that the distinct needs of electoral agencies are incorporated into the design of their address register. That is, the need for addresses at the level of the dwelling unit that can be located on the ground, including difficult address types, such as marinas, trailer parks, etc.

6.0 POLITICAL ENTITIES

This chapter focuses on the business processes related to registering, suspending, and deregistering political entities and related compliance and enforcement processes. Almost all Canadian jurisdictions require candidates, political parties, and their supporting officers (e.g., financial agents and auditors) to register with the Chief Electoral Officer or Returning Officer.[16] Some jurisdictions also have registration requirements for local ED associations, political party leadership contestants, third party advertising sponsors and official groups established to support or oppose a referendum, initiative proposal, or the recall of a member of the B.C. Legislature.

Through business processes in the **Election Finance** business area, registered political entities may be subject to spending limits and requirements to disclose the amounts and sources of their income and the amount and nature of their expenses.

Figure 21 Political Entities Business Processes and Interactions



6.1 Overall Objectives for Political Entities Business Area

1. To efficiently and accurately process requests to register and deregister from political entities.

[16] Nunavut and the Northwest Territories do not register political parties.

2. To maintain a complete and current list of registered political entities and to make the list available for other purposes (e.g., list of candidates and / or public inspection), as required by law.
3. To encourage compliance with registration requirements by providing information and support to registered political entities and potential political entities.
4. To enforce the law by suspending and deregistering political entities as required.
5. To fairly and efficiently respond to complaints, allegations and appeals regarding registration, suspension, and deregistration decisions.

6.2 Political Entities Business Area Background

6.2.1 What are political entities?

Political entities are very important stakeholders in elections. They run for election, identify and communicate campaign issues, shape public opinion through advertising campaigns, the media, and public meetings, and they scrutinize the electoral process. Political entities are individuals or organizations that participate in elections, referenda and other electoral events by:

- running for office,
- promoting the election of particular candidates, and/or
- raising awareness about issues of public concern and trying to influence public opinion.

Political entities are likely to receive financial contributions and incur expenses and, therefore, they are subject to the financing rules of the jurisdiction. Jurisdictions vary in terms of the political entities that they require to register. Political entities may include: political parties, ED associations, leadership contestants, candidates, third-party advertising sponsors and official proponent and opponent groups. Political entities are often required to have supporting agents, such as financial agents and auditors. These supporting agents may also be required to register with the Chief Electoral Officer or with a Returning Officer.

6.2.2 Why register political entities?

History has shown that some degree of regulation of political entities is necessary to minimize negative behaviour on the part of political entities, such as vote buying, illegal finance, voter intimidation, etc. Electoral law establishes a set of ground rules in each jurisdiction that strikes a balance between permitting political entities to freely contest elections and/or share their views, while minimizing any disruptive practices and levelling the playing field in terms of finances.

The application of many provisions of electoral law to political entities begins with the registration of those entities with the electoral agency. Once registered, political entities are permitted to incur expenses, issue tax receipts, and in the case of registered political parties and candidates, be identified on candidate ballots. Registered political entities are also subject to the jurisdiction's finance rules and reporting requirements, which are established to ensure fairness, transparency and accountability.

6.2.3 Descriptions of political entities

A brief description of each of the six types of political entities is provided below.

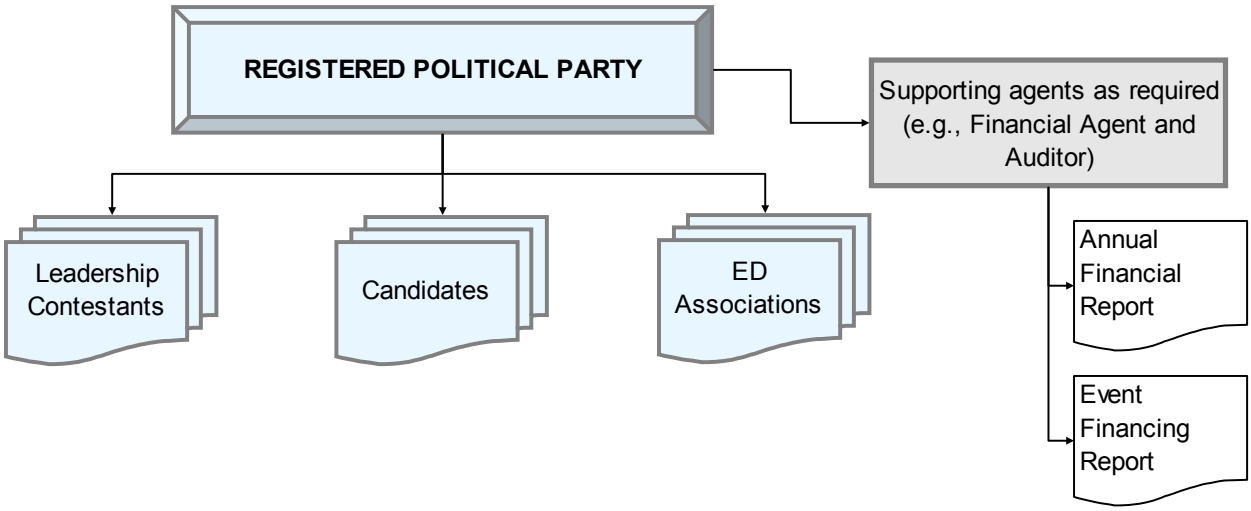
6.2.3.1 Political parties

A political party is an organization that has as a primary purpose the election of candidates to a jurisdiction's Parliament or Legislative Assembly. Registered political parties exist in all Canadian jurisdictions, except for the Northwest Territories and Nunavut.

Registration gives political parties a legal status, protection for their name and logo, the right to be identified on the ballot, and to incur election expenses and issue tax receipts for contributions. Local electoral legislation specifies the requirements for registration, deregistration and suspension of political parties.

Registered political parties may be associated with other political entities. For instance, registered political parties endorse candidates, and they may establish ED associations, also called constituency or riding associations, to provide a local presence for the party. By definition, leadership contestants are always affiliated with registered political parties. Registered political parties may be required to appoint a financial agent and an auditor and these supporting agents must also be registered with Chief Electoral Officer. [17] Because political party registrations are on-going, registered political parties are required to file annual financial reports in addition to financing reports related to particular elections.

Figure 22 Registered Political Parties and Their Affiliations



6.2.3.2 ED associations

ED associations, also referred to as constituency or riding associations, are organizations formed in an electoral district to act as the local organization of a registered political party or an independent elected member of the jurisdiction's Parliament or Legislative Assembly.

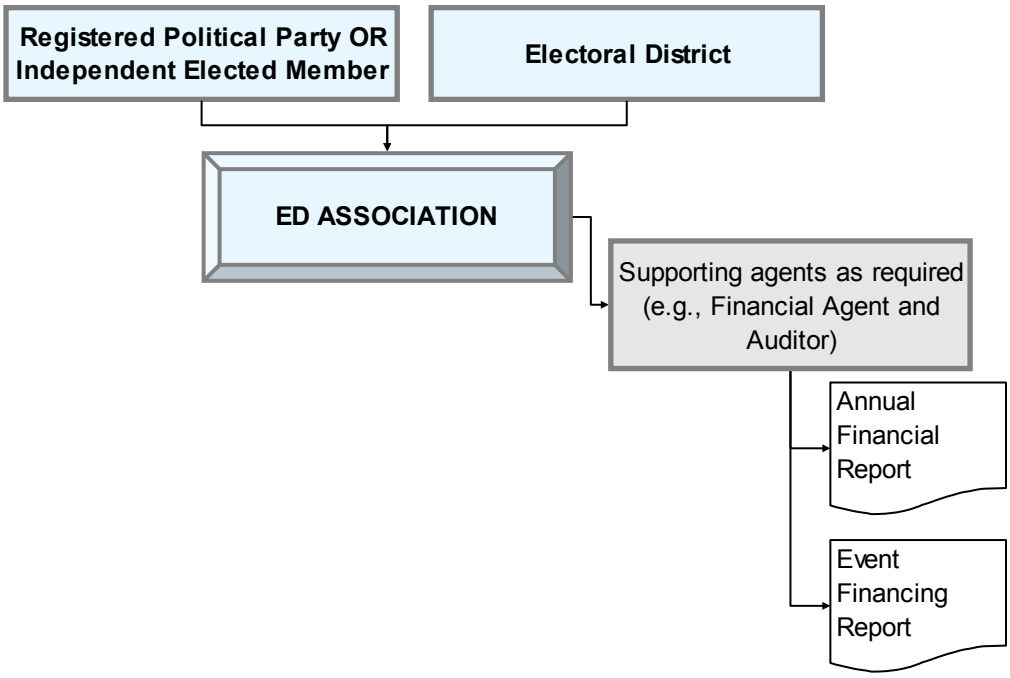
[17] Note that in Nunavut, auditors are contracted by Elections Nunavut to review each financial return; they are not appointed by the political entity.

Registered political parties are not required to have registered ED associations in all electoral districts; they may choose not to have any registered ED associations, to have them in some electoral districts, or to have them in all electoral districts. Registered political parties and independent elected members of the jurisdiction's Parliament or Legislative Assembly may also choose not to register their ED associations.

Registration allows ED associations to issue tax receipts for contributions, incur election expenses on behalf of a candidate, or transfer money, goods or services to registered political parties, other ED associations and candidates. While there may only be one registered ED association within each electoral district for a given registered political party or independent elected member, the association may have more than one physical location in the electoral district.

ED associations are associated with a registered political party or an independent elected member, and with a particular electoral district. Registered ED associations may be required to appoint a financial agent who is responsible for ensuring compliance with election financing rules. Registered ED associations may also be required to appoint an auditor. Because ED association registrations are on-going, they must file annual financial reports in addition to financing reports related to particular elections.

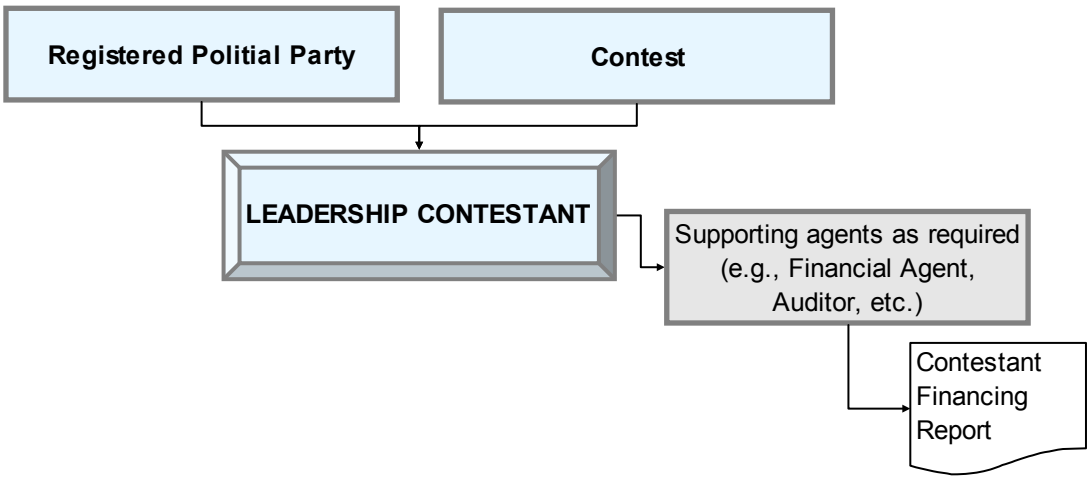
Figure 23 ED Associations and Affiliations



6.2.3.3 Leadership contestants

At the national level, and in Ontario, Manitoba and British Columbia, individuals wishing to run for the leadership of a registered political party must register with the Chief Electoral Officer for that jurisdiction. In B.C., leadership contestants must appoint a financial agent. The registration of leadership contestants is in relation to a particular contest. After leadership contestants have satisfied the reporting requirements related to the contest, their registration is concluded.

Figure 24 Leadership Contestants and Their Affiliations



6.2.3.4 Candidates

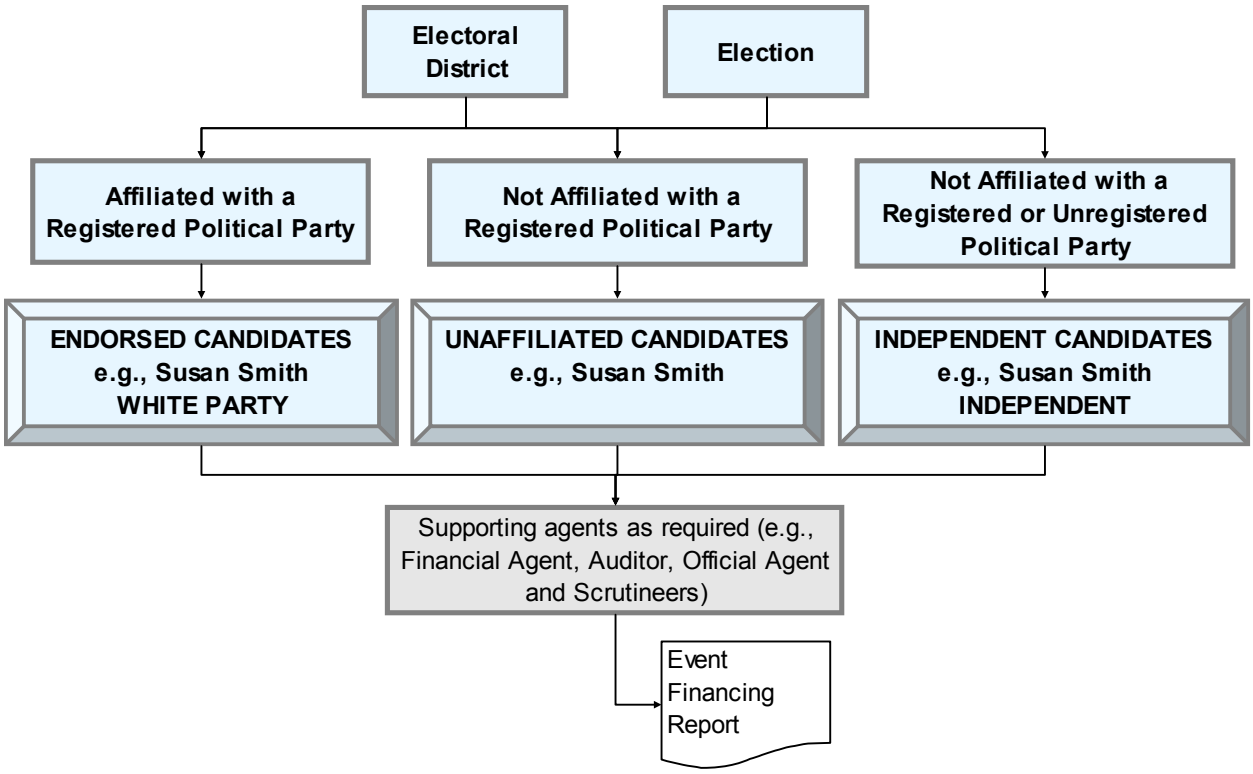
The right to stand as a candidate in a provincial or federal election in Canada is guaranteed by the *Charter of Rights and Freedoms*. In all jurisdictions, anyone who meets the eligibility requirements for voting is also eligible to be a candidate. Each jurisdiction also has its own disqualifying criteria, for instance, people who have been convicted of an election-related offence, the Chief Electoral Officer, Returning Officers, inmates, etc.[18] In B.C., members of the House of Commons of Canada (MPs) must resign before they can be a candidate in a provincial election, but mayors and local government councillors do not have to resign.

Candidates are always affiliated with a particular election and electoral district. In terms of political affiliation, candidates may be endorsed by a registered political party, they may be unaffiliated with any registered political party, or they may declare themselves as independent of any political party, registered or not. Candidates who are officially endorsed by a registered political party have their political affiliation printed on the ballot with their name. Those who declare themselves as independent of any political party, have "independent" printed on the ballot with their name. The area on the ballot reserved for displaying a candidate's political affiliation is left blank in cases where a candidate is neither affiliated with a registered political party or declared as independent.

Candidates may be required to appoint a number of supporting agents, including a financial agent to manage and report on campaign finances, an auditor, official agent, assistant financial agent and scrutineers. A candidate's registration is in relation to a particular event and, therefore, when they have satisfied the financial reporting requirements related to that event, their registration is concluded.

[18] Elections Canada. (2009). *Compendium of Election Administration in Canada: A Comparative Overview.* Ottawa: Elections Canada.

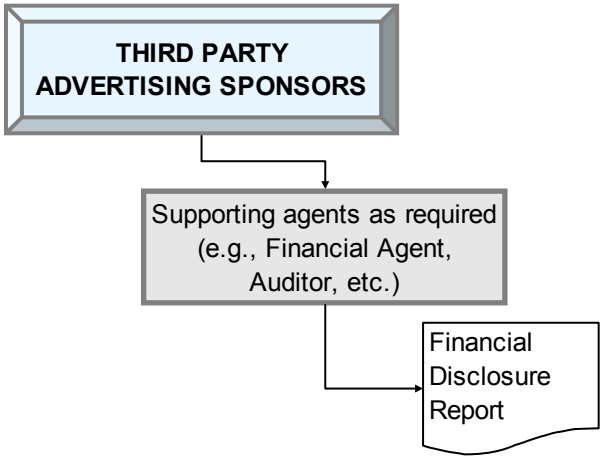
Figure 25 Candidates and Their Affiliations



6.2.3.5 Third-party advertisers

Third-party advertising sponsors are organizations or individuals — other than candidates, registered political parties and registered ED associations — who sponsor advertising during an election, referendum, recall or initiative to promote or oppose directly or indirectly a registered political party, election of a candidate, or a particular outcome in a referendum, recall or initiative. At the national level, in Québec, Ontario, and B.C., third-party advertising sponsors must register, adhere to legislated spending limits, and file a financing report to disclose the value of advertising sponsored and the amount of contributions accepted during a defined period of time. Any individual or organization that registers as a third-party advertising sponsor must be independent of registered political parties, registered ED associations, candidates and their agents, and must not sponsor election advertising on behalf of those political entities or with them. In B.C., third party advertising sponsors are not required to appoint a financial agent or an auditor, however, at the national level, they are required to have a financial agent and an auditor if they spend more than $500 on election advertising.

Figure 26 Third Party Advertising Sponsors

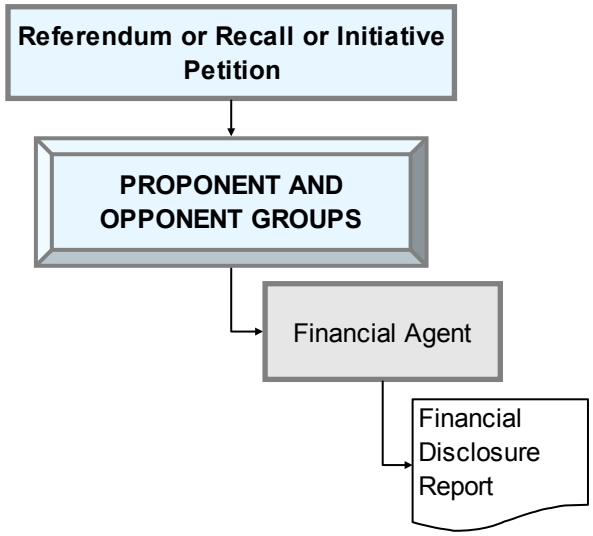


6.2.3.6 Proponents and opponents

In B.C., official proponents and opponents are established under initiative, recall and some referendum legislation. Proponents and opponents, sometimes referred to as yes/no groups, work to oppose or support a referendum choice, or an initiative or recall petition. For recall petitions, the opponent is the Member of the Legislative Assembly who is the subject of the petition. Proponents and opponents also exist in the event of a referendum in Québec.

The public money received by proponents and opponents, and/or the contributions they raise from supporters, may be used to inform the public through information and advertising campaigns and through local events open to the public, and also to recover administrative expenses incurred in relation to these activities. Proponents and opponents must appoint a financial agent and file a disclosure report within 90 days after the end of the referendum campaign period or the initiative vote period and 28 days after the end of the initiative or recall petition period.

Figure 27 Proponent and Opponent Groups and Their Affiliations



6.2.4 Fairness in application of registration and deregistration rules

Legislation in Canada is clear regarding when and how registration procedures are applied, what the requirements are, and how the verification process takes place. Electoral agencies must apply the registration and deregistration processes fairly across political entities. Grounds for rejection of a registration application, suspension or deregistration should be based on objective criteria that are clearly stated in legislation, they should be communicated, and there should be a mechanism for appeal.

6.2.5 **Political Entities** data elements

The standard information collected from political parties, ED associations and candidates is documented in detail in the Electoral Technology Accord's 2006 Common Data Model. The data elements for third-party advertising sponsors, leadership contestants, and proponent and opponent groups have not yet been defined by the Technology Working Group.

In general, data elements for political entities include, but are not limited to, contact information for political entities, ballot name for candidates and political parties, preferred communication language, and financial account information, such as financial institution type, financial institution name, branch address, account type and number, etc. In addition, information is collected related to individuals fulfilling certain roles within the political entity (e.g., president, financial agent, auditor, etc.): names, professional designations, and signatures. Any affiliations of the political entity to another political entity, to an electoral district, and/or event are also noted. For instance, a candidate's record would be associated with a particular electoral district and election, and, if endorsed, to a registered political party as well.

For more information about the specific data elements related to **Political Entitites**, please refer directly to the 2006 Common Data Model.

6.3 Political Entities Business Area – Inputs, Business Processes, and Outputs

The **Political Entities** business area is described in this section in terms of its inputs, business processes and outputs.

6.3.1 Inputs to **Political Entities** business processes

Six of seven of the inputs to the **Political Entities** business area originate from outside the organization. A brief description of the main inputs to the **Political Entities** business area is provided below.

6.3.1.1 Requests to register or deregister from political entities

Political entities make requests to register and deregister by submitting application forms created by the electoral agency for this purpose. The forms are designed to ensure that all information required by law is captured, as well as any other information that may be required to maintain the entity's record over time.

6.3.1.2 Updates to existing registrations from registered political entities

Political entities with on-going registration must maintain the currency of their registration information. British Columbia's *Election Act* gives registered political parties and ED associations 60 days to file notice of any changes to their registration information. Failure to

meet this obligation can result in suspension. Third-party advertisers in B.C. also have on-going registrations and their information must be updated within 30 days after the change occurs.

6.3.1.3 Candidate endorsements from registered political parties

Registered political parties must confirm in writing which candidates they wish to endorse for election. The name of a registered political party cannot appear with a candidate's name on the ballot unless an official endorsement from the party has been received by the legislated deadline.

6.3.1.4 Appeals and requests for extensions from political entities

Political entities that believe they have been unjustly denied registration, suspended, or deregistered may be able to appeal those decisions to the Chief Electoral Officer. Political entities may also request an extension to a deadline.

6.3.1.5 Complaints and allegations from the public

Sometimes complaints and/or allegations from the public assist the electoral agency with compliance and enforcement. For instance, a member of the public may complain or allege that a registered political entity does not meet the qualifications for registration or that unregistered individuals or organizations should be registered based on the activities they are conducting.

6.3.1.6 Electoral district boundary changes from independent commissions or government

ED associations have on-going registrations that are tied to the electoral geography that existed at the time of their registration. When electoral districts change, existing ED associations must be deregistered and new ED associations, tied to the new electoral districts, registered.

6.3.1.7 List of entities failing to file and disqualified candidates from **Election Finan**ce

The **Election Finance** business area identifies late filers and the appropriate penalty. A list of those that should be suspended or deregistered is provided to **Political Entities** for action. In B.C., **Election Finance** also provides a list of disqualified candidates to **Political Entities** to ensure that, should they submit nomination papers in the next election, their application for candidacy will be denied.

6.3.2 Business processes in **Political Entities**

There are seven business processes in the **Political Entities** business area, one for each of the six types of political entities and a compliance and enforcement process:

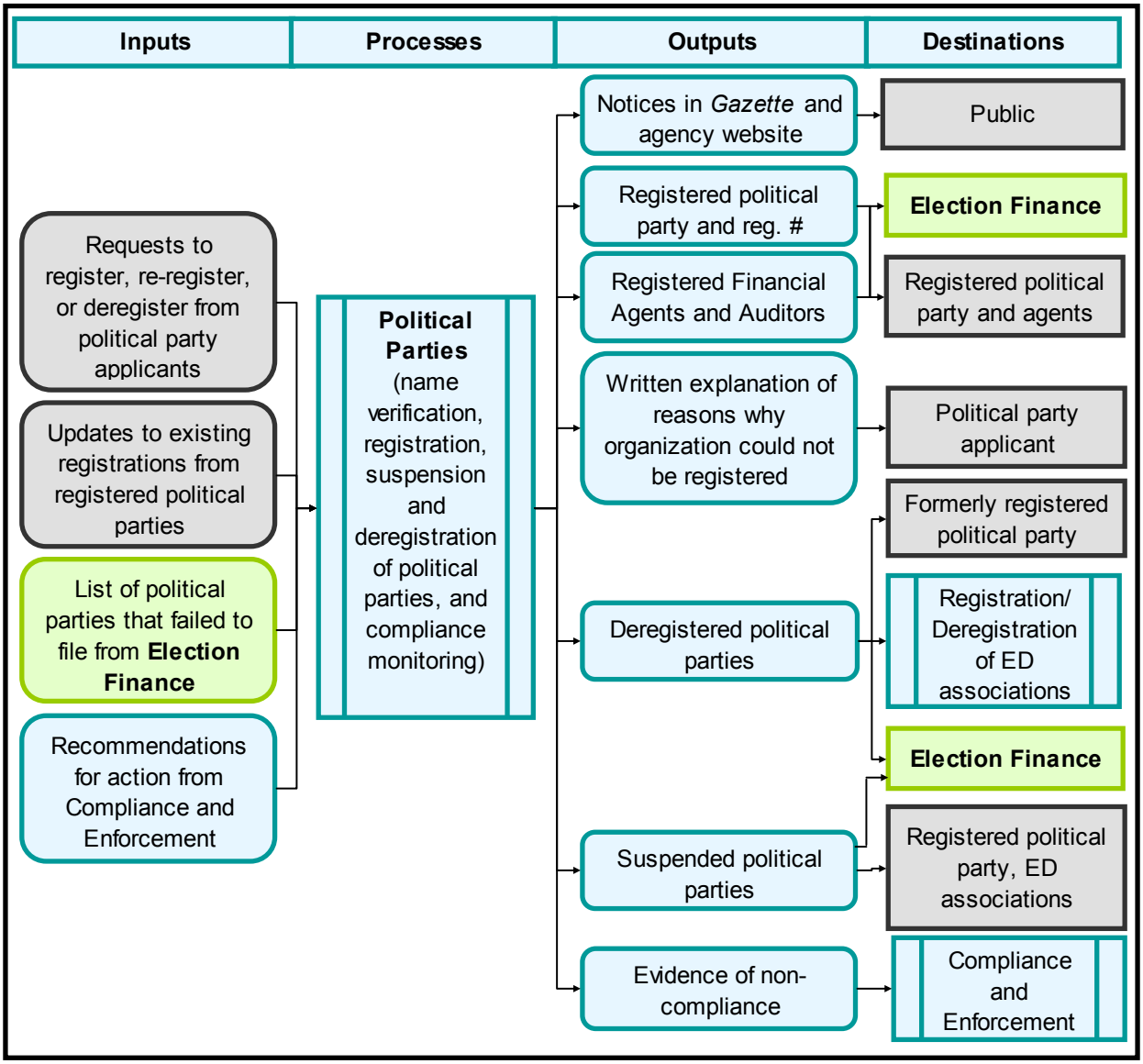
1. Registration and Deregistration of Political Parties
2. Registration and Deregistration of ED Associations
3. Registration of Leadership Contestants
4. Registration of Candidates
5. Registration and Deregistration of Third-Party Advertising Sponsors
6. Registration of Proponent and Opponent Groups
7. Compliance and Enforcement

What follows is a description of each of the business processes in terms of inputs, what is produced as a result of the processes, and where those outputs are used.

6.3.2.1 Registration and Deregistration of Political Parties

Registered political parties exist in all Canadian jurisdictions, except for the Northwest Territories and Nunavut.[19] Political parties are active throughout the business cycle and, therefore, their registration, and that of their financial agent and auditor, is maintained on an on-going basis by staff at the head-office of the electoral agency. Reflecting the on-going nature of their registration, registered political parties are required to file annual financial reports, as well as financing reports related to particular elections. Figure 28, summarizes the inputs, outputs and the destinations for Registration and Deregistration of Political Parties business processes.

Figure 28 Registration and Deregistration of Political Parties - Inputs, Outputs and Destinations



[19] In Nunavut and the Northwest Territories, political parties are not recognized. Independent candidates are elected and the legislature runs on a consensus government model, with policies being decided upon by a majority vote of members of the legislature.

Registration
The business processes related to political party registration are triggered by the submission of an application for registration. At the national level and for many provinces, the application must include a number of elector or party member signatures specified by local legislation. Potential parties must also propose a name that meets the requirements of the jurisdiction. In B.C., these requirements ensure names are sufficiently different from existing party names and that such items as honours or degrees, the words "independent" or "non-affiliated", etc., are not part of the party name.

Registration involves approving the party name, ensuring that the application includes the appointment of required supporting agents, and reviewing the application package to ensure it is completed in full and that the applicant satisfies all of the jurisdiction's registration requirements. Jurisdictions have different rules regarding when a political party registration takes effect.

Deregistration
Deregistration processes are triggered either by a voluntary request to deregister from a registered political party, information regarding non-compliance from the **Election Finance** business area, or from compliance and enforcement processes within the **Political Entities** business area. In order to maintain their registration, political parties must meet certain obligations. Given that political parties exist for the primary purpose of fielding candidates in elections, many jurisdictions require registered political parties to nominate candidates in elections in order to maintain their registration.[20] For instance, in B.C., parties must field at least two candidates in one of the last two general elections unless one of the party's candidates is elected. Also, in B.C., legislation requires political parties to be deregistered by the Chief Electoral Officer if the party or a certain proportion of its candidates, fails to meet financial reporting requirements, or the political party is convicted of filing a false or misleading financing report. Outside of the event phase, political parties that have met the requirements of the law with respect to reporting on their finances may also voluntarily deregister. Deregistration of a political party triggers deregistration of all of its ED associations.

Suspension
Political parties may have their registered status suspended for a specified period of time by the Chief Electoral Officer if they exceed their election spending limit or if they fail to update their registration information within the legislated time frame. During the suspension period, the organization must not incur election expenses, issue income tax receipts, make political contributions, or transfers to a candidate, ED association, or another political party. The names of political parties that are suspended during an election are not printed on ballots.

Destinations
As illustrated in Figure 28, the main destinations for registration, deregistration and suspension decisions are external to the electoral agency: the impacted political parties are notified along with any related ED associations, and public notices in the jurisdiction's *Gazette* are often required to announce new registrations, deregistrations, and suspensions to the public. Information about deregistration of political parties is sent to the Registration and Deregistration of ED Associations processes in **Political Entities** because it triggers deregistration of affiliated

[20] Quebec does not require registered political parties to run candidates in elections.

ED Associations**.** The **Election Finance** business area is notified of all registrations, deregistrations and suspensions. Evidence of non-compliance may arise during the day-to-day processing of political party registrations. This information is destined for Compliance and Enforcement processes within **Political Entities** for further investigation.

6.3.2.2 Registration and Deregistration of Electoral District Associations

Registered ED associations exist at the national level in Canada, and in Nova Scotia, New Brunswick, Québec, Ontario, Alberta and British Columbia. They are associated with a registered political party or an independent elected member, and with a particular electoral district. Like political parties, ED associations are active throughout the business cycle and, therefore, their registration, and that of their supporting agents, is maintained on an on-going basis by staff at the head-office of the electoral agency. Registered ED associations are required to file annual financial reports, as well as financing reports related to particular elections.

Figure 29, page 83, summarizes the inputs, outputs and the destinations for Registration and Deregistration of ED Associations business processes.

Registration

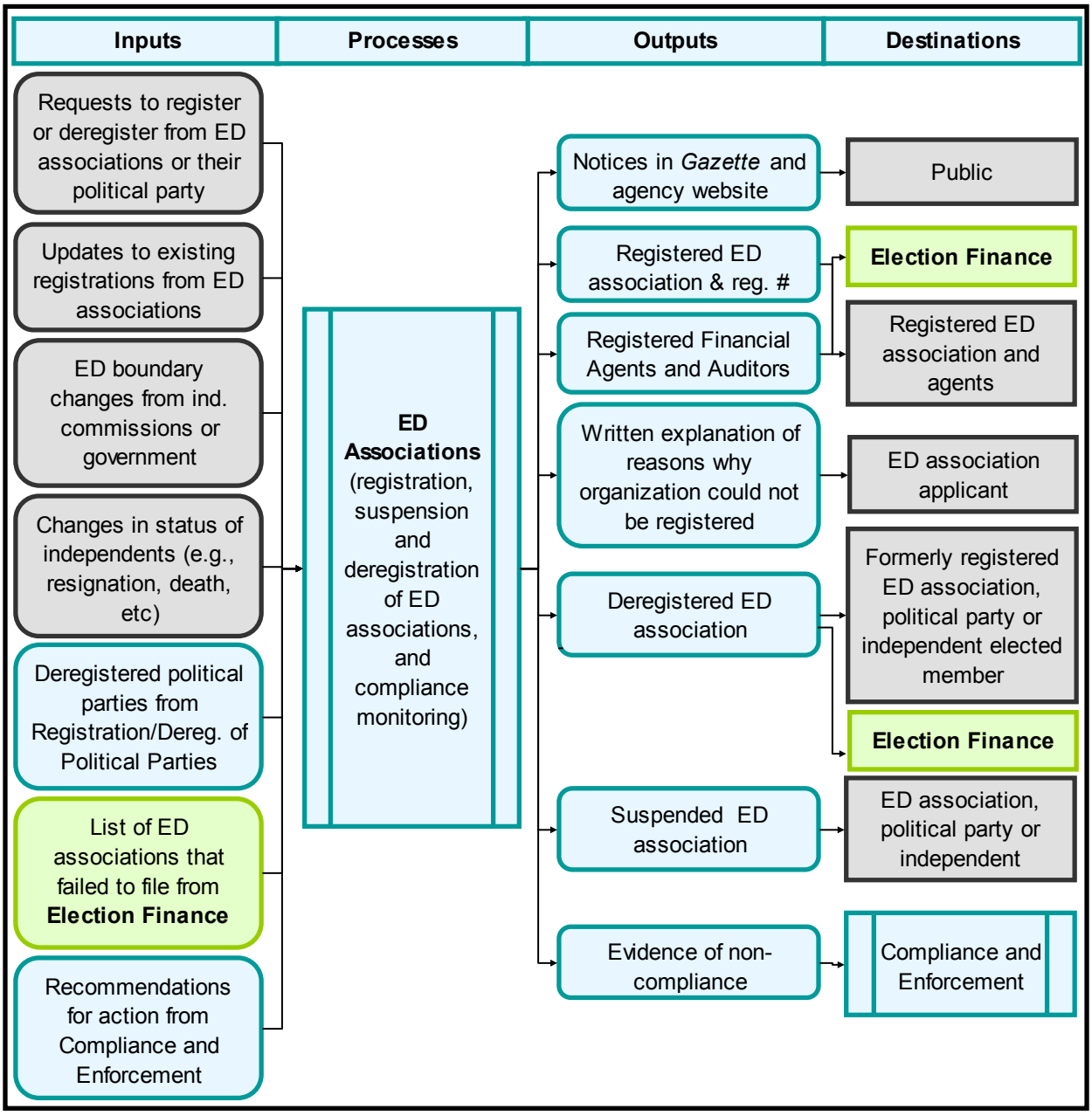
Registration of an ED association begins with the processing of a completed registration application, including a signed statement from an independent elected member or a political party authorizing the ED association. Registration processes are designed to ensure that all of the relevant requirements for registration are satisfied. Jurisdictions have different rules regarding when an ED association registration takes effect.

Deregistration

In order to maintain their registration, ED associations must meet certain obligations. Deregistration processes may be triggered by:

1. A voluntary request to deregister received from a registered ED association, political party, or independent elected member.
2. Deregistration of the political party to which the ED association is related, or, if the independent elected member to which the ED association is related is not elected, resigns, dies, or joins a political party.
3. Disestablishment of the associated electoral district and the establishment of new electoral districts (i.e., boundary redistribution).
4. Failure to file, or filing of a false or misleading financing report.

Figure 29 Registration and Deregistration of ED Associations - Inputs, Outputs and Destinations



Suspension

ED associations may have their registered status suspended for a specified period of time by the Chief Electoral Officer if the political party to which they are associated is suspended, or if they fail to update their registration information within the legislated period of time. During the suspension period, ED associations must not incur election expenses, issue income tax receipts or make political contributions, or transfers to a candidate, ED association, or political party.

Destinations
As illustrated in Figure 29, page 83, the main destinations for registration, deregistration and suspension decisions are external to the electoral agency: the impacted ED association, its associated political party or independent member, and notices in the jurisdiction's *Gazette* and on the agency's website to inform the public. The **Election Finance** business area is also notified of all registrations, deregistrations and suspensions of ED associations. Evidence of non-compliance may arise during the day-to-day processing of ED association registrations. This information is sent to Compliance and Enforcement processes within **Political Entities** for further investigation.

6.3.2.3 Registration of Candidates

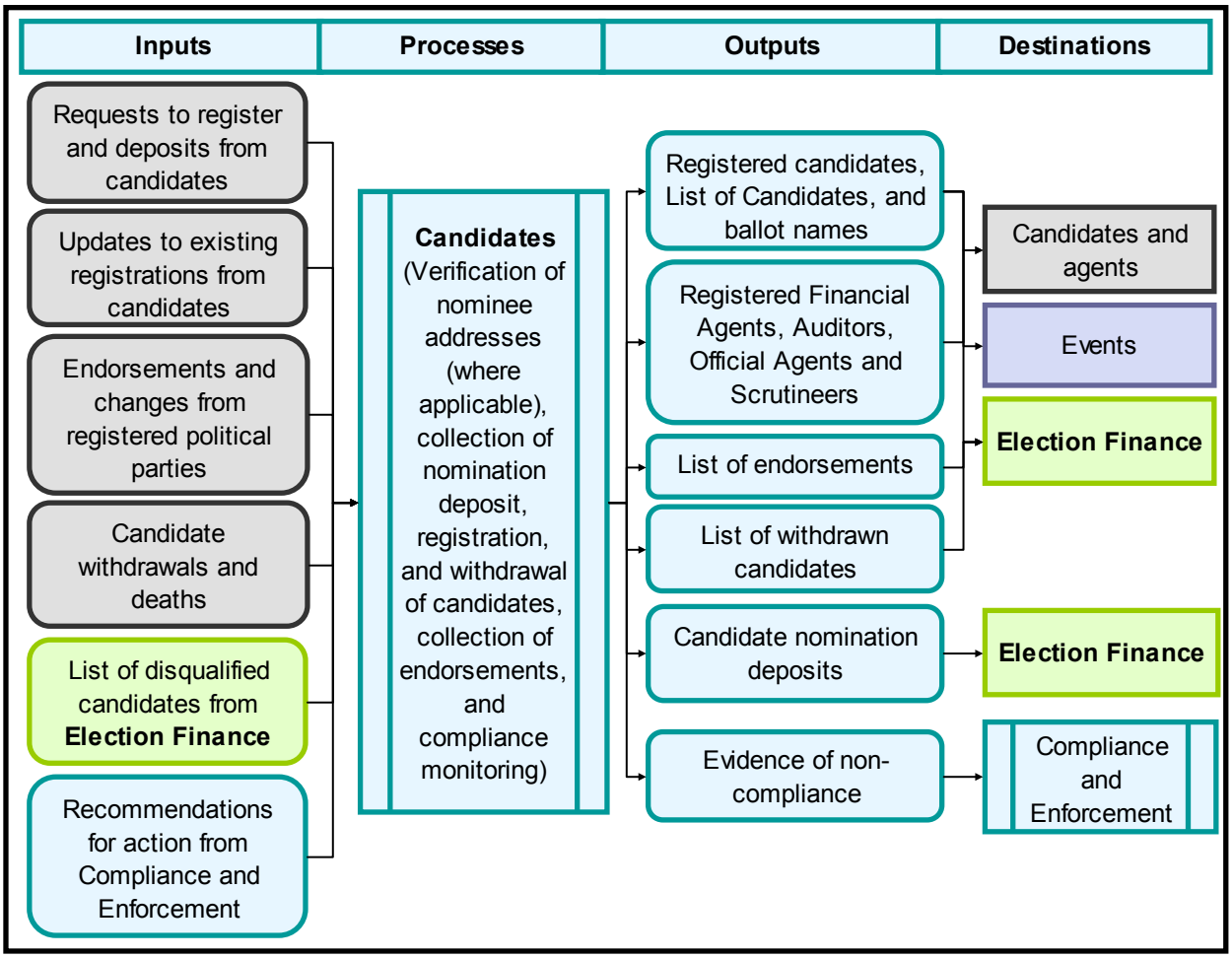
In order to be a candidate in an election, all jurisdictions require individuals to satisfy local nomination requirements and to register through either the Returning Officer for the electoral district in which they are seeking election or the Chief Electoral Officer. Candidate registrations take place during the nomination period, the timing of which is governed by local legislation.

Candidates may be endorsed by a registered political party, they may be unaffiliated with a registered political party, or they may declare themselves as independent of any political party, registered or not. They are always associated with an election and an electoral district. Unlike political parties and ED associations, a candidate's registration pertains to a particular event and there is no requirement for the candidates to continue to update their registration information after the financial reporting requirements for that event have been satisfied.[21] All candidates are required to file campaign financing reports by a legislated deadline following the election.

Figure 30 summarizes the inputs, outputs and the destinations for Registration of Candidates business processes.

[21] Note that while the candidate's registration for a particular event is retired after financial reports requirements are satisfied, the candidate's information remains in the computer system. If the candidate should run in a subsequent election, the existing candidate record can be updated and linked to a new event or contest, thereby creating a history in the system of that candidate's participation across events.

Figure 30 Registration of Candidates – Inputs, Outputs and Destinations



Registration

Candidate registration processes are triggered by the submission of a completed nomination package. In most jurisdictions, nominations are submitted to Returning Officers. In B.C., where general election dates are fixed, nominations may also be submitted to the Chief Electoral Officer during the standing nomination period, which concludes on the day the writs are issued. Nominations are then filed with Returning Officers for the first ten days of the election period. Legislation specifies a closing day and time for nominations; for instance, at the national level, nominations close at 2 p.m. on the Monday that is the 21st day before Voting Day. If at the close of nominations there is only one candidate for an electoral district, that candidate is elected by acclamation.

In B.C., candidates who fail to submit an election financing report by the legislated deadline may be disqualified from being a candidate in the next election. **Election Finance** provides a list of disqualified candidates to the Registration of Candidates process to ensure that, should such a candidate submit an application, it is denied.

The completed nomination papers demonstrate that the applicant-candidate satisfies the applicable qualifications for the jurisdiction. Some jurisdictions require a specified number of

signatures from electors who reside in the district where the applicant-candidate wishes to become a candidate. Verification processes may be undertaken to ensure that the residential addresses of those who have signed a candidate application are located within the electoral district in question.

With the exceptions of Québec and Manitoba, all jurisdictions also require a nomination deposit. In some jurisdictions, the deposit's return is conditional on the candidate achieving a certain percentage of valid votes, and in others it is returned when all required documents and forms are completed and returned. The nomination deposit is collected by the Registration of Candidates process and then given to the **Election Finance** business area for potential reimbursement to the candidate.

During the nomination period, there is a lot of interest from the media and the public regarding the current list of registered candidates in each electoral district. Communications processes in the **Events** business area keep all stakeholders apprised of the current status of registered candidates based on information supplied by Registration of Candidates processes. At the close of the nomination period, Registration of Candidates produces a final List of Candidates and list of ballot names for use by the **Events** business area in the administration of voting, production of ballots, and for communication to the electorate and media. **Election Finance** is also an important recipient of candidate and agent information because this business area will process candidates' campaign financing reports after the election.

Candidate deaths, withdrawals and changes to endorsements
Each jurisdiction has its own rules regarding changes to political party affiliations, the withdrawal of a candidate, or the death of a candidate. The withdrawal of a candidate and changes in affiliations are generally permitted if they occur before a certain date in the election period. These changes can confuse the electorate and electoral legislation is designed to ensure sufficient time to notify the electorate of the change before voting begins and, ideally, to reflect the change on the ballots.

In the case of the death of a candidate, the nomination period may be extended or the election in the affected electoral district may be postponed or cancelled and a new writ issued. Jurisdictions take different courses of action depending on the timing of the death relative to the close of nominations.

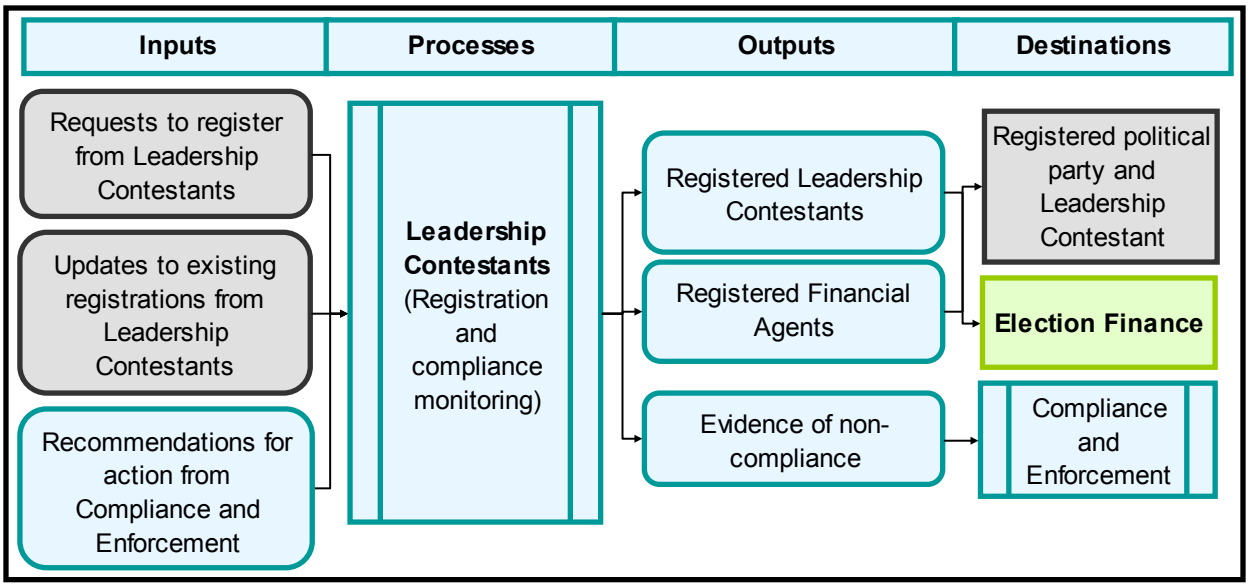
Destinations
Information about the registration of candidates and their agents is shared with the candidates themselves, as well as the **Events** and **Election Finance** business areas. Evidence of non-compliance may arise during the day-to-day processing of candidate nominations. For instance, someone may challenge that the candidate is not a Canadian citizen or the name they used is not their usual name. Any evidence of this nature becomes an input to Compliance and Enforcement, where the complaint is investigated and/or referred to the courts, as required by local legislation.

6.3.2.4 Registration of Leadership Contestants

Leadership contestants are associated with a registered political party and a particular contest. There is no requirement for leadership contestants to continue to update their registration information after the financial reporting requirements for the contest are met.

Figure 31, summarizes the inputs, outputs and the destinations for Registration of Leadership Contestants business processes.

Figure 31 Registration of Leadership Contestants – Inputs, Outputs, and Destinations



Particularly in provinces with smaller registered political parties, the request to register may not be submitted automatically by leadership contestants. Many leadership decisions in smaller parties are made informally and the requirement to register may not be well understood. Often the electoral agency finds out about the leadership contest from news reports or other sources that are monitored through Compliance and Enforcement processes. If evidence of a leadership change is detected, Compliance and Enforcement processes follow-up with the registered political party to ensure the leadership contestant submits an application to register and complies with financing requirements.

Leadership contestants must file a financing report with the **Election Finance** business area within a certain period after the contest, even if they are acclaimed. In B.C., failure to submit a contestant financing report by the legislated deadline results in penalties, which may include a fee, loss of seat for contestants who are Members of the Legislative Assembly, or disqualification from being a candidate in the next election. **Election Finance** provides a list of disqualified individuals to the Register of Candidates business process to ensure that, should they submit an application, it is denied.

Destinations
Information about leadership contestant registrations is shared with the leadership contestants themselves, and the registered political parties with which they are affiliated. The **Election Finance** business area is also apprised of registered leadership contestants because of the requirement for leadership contestants to submit financing reports.

6.3.2.5 Registration and Deregistration of Third-Party Advertising Sponsors

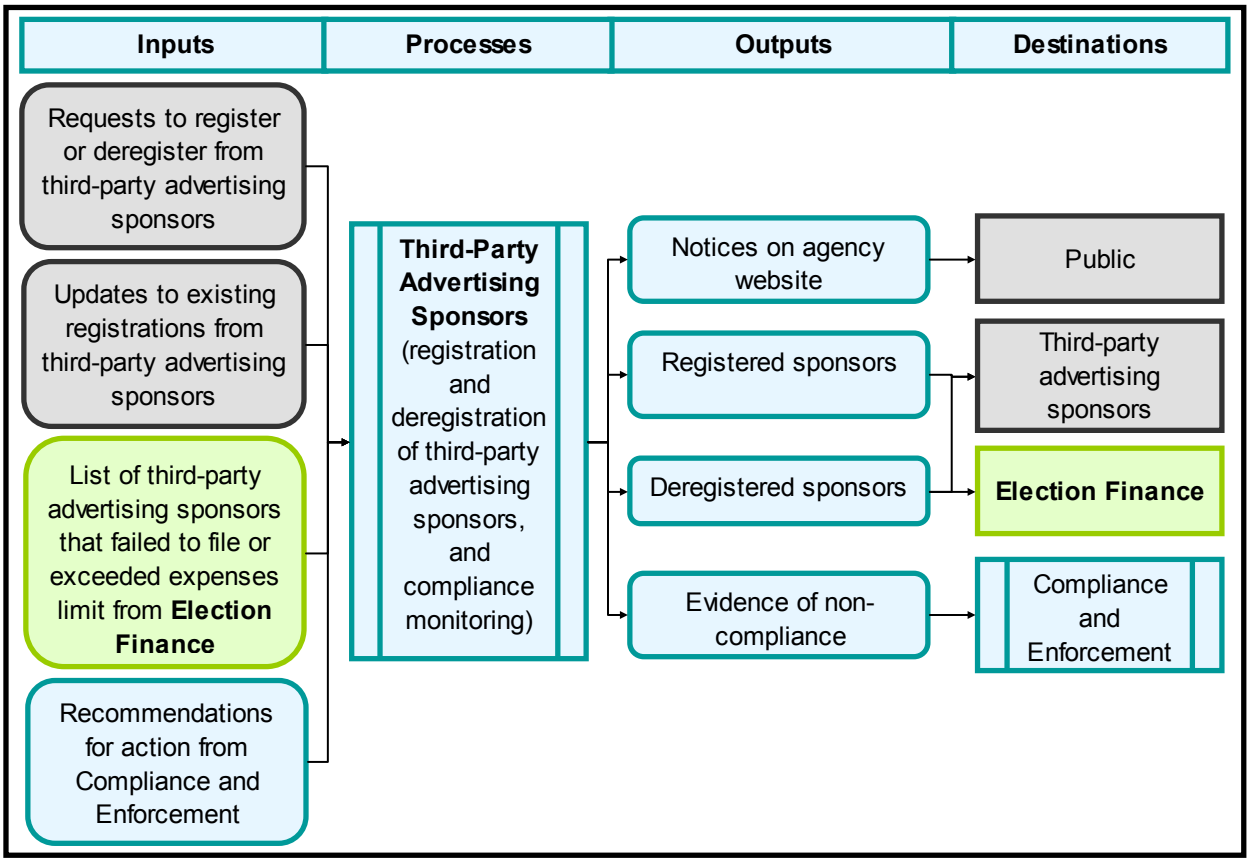
Most jurisdictions place limits on the amount of money that candidates, registered political parties, and ED associations can spend on election advertising. Some jurisdictions also register and monitor third-party advertising sponsors to ensure that they are, indeed, independent of these other political entities and that they do not sponsor advertising in order to circumvent the election expenses limits for these other political entities. The main qualification to register as a third-party advertiser is independence from registered political parties, registered ED associations, and candidates.

At the national level, and in British Columbia and Ontario, third-party advertisers are required to register with the Chief Electoral Officer; in Québec, they must file their registration to the Returning Officer of their electoral district. In all other provinces and in the territories, third-party advertisers are not required to register. British Columbia and Québec require third-party advertisers to register regardless of the value of the advertising they sponsor, whereas at the federal level and in Ontario, third-parties are only required to register if they spend more than $500 on election advertising. In all three jurisdictions, advertising sponsors are required to display sponsor information on advertising and to comply with spending limits.

Third-party advertising sponsors' registrations are maintained on an on-going basis in B.C., whereas at the national level and in Ontario, their registration ends after the election period for which they were registered.

Figure 32, summarizes the inputs, outputs and the destinations for Registration and Deregistration of Third-Party Advertising Sponsors business processes.

Figure 32 Registration and Deregistration of Third-Party Advertising Sponsors - Inputs, Outputs and Destinations



Registration

The registration of third-party advertising sponsors is usually triggered by the submission of an application. More often than is the case with other political entities, the registration process may also be triggered by recommendations from Compliance and Enforcement processes. The requirement for third parties to register is not well understood by the electorate. Organizations and individuals may not know that their activities constitute election advertising and that they are required to register. The electoral agency may become aware of third-party advertisers through complaints received from outside sources. After investigation, the agency may decide to contact the individual or organization and inform them of the requirement to register.

In B.C., those third-party advertisers that exceeded the advertising limits in the last election are deregistered and prohibited from registering until after the next election. A list of these entities is provided by the **Election Finance** business area as an input to Registration and Deregistration of Third-Party Advertisers.

To register, third-party advertisers must declare that they are independent of registered political parties, candidates, and ED associations and that they will not sponsor advertising on behalf of or together with them. Because their registration is on-going in B.C., third-party advertisers must notify the Chief Electoral Officer of any changes to their registration information within 30 days after the change occurs.

Deregistration
At the federal level, third-party advertiser registrations pertain to a particular election and end at the conclusion of the election period. In B.C., where the registrations are on-going, third-party advertising sponsors can deregister voluntarily after satisfying any outstanding reporting requirements. Involuntary deregistration is a penalty for advertisers who do not file and for those who exceed the advertising expenses limit in B.C. **Election Finance** provides information to Registration and Deregistration of Third-Party Advertisers processes when deregistration is necessary.

Destinations
Third parties are always notified of registration and deregistration decisions that impact them. In addition, **Election Finance** must also be notified so that it can ensure that the relevant reporting requirements are satisfied. Evidence of non-compliance may arise during the day-to-day processing of third-party advertising registrations. For instance, it may be observed that a third-party advertiser has a principal officer who is also the financial agent of a candidate and that they are located in the same city. This information might become an input to Compliance and Enforcement processes within **Political Entities** for further investigation and follow-up if it is determined that the two political entities are, indeed, working together to sponsor advertising.

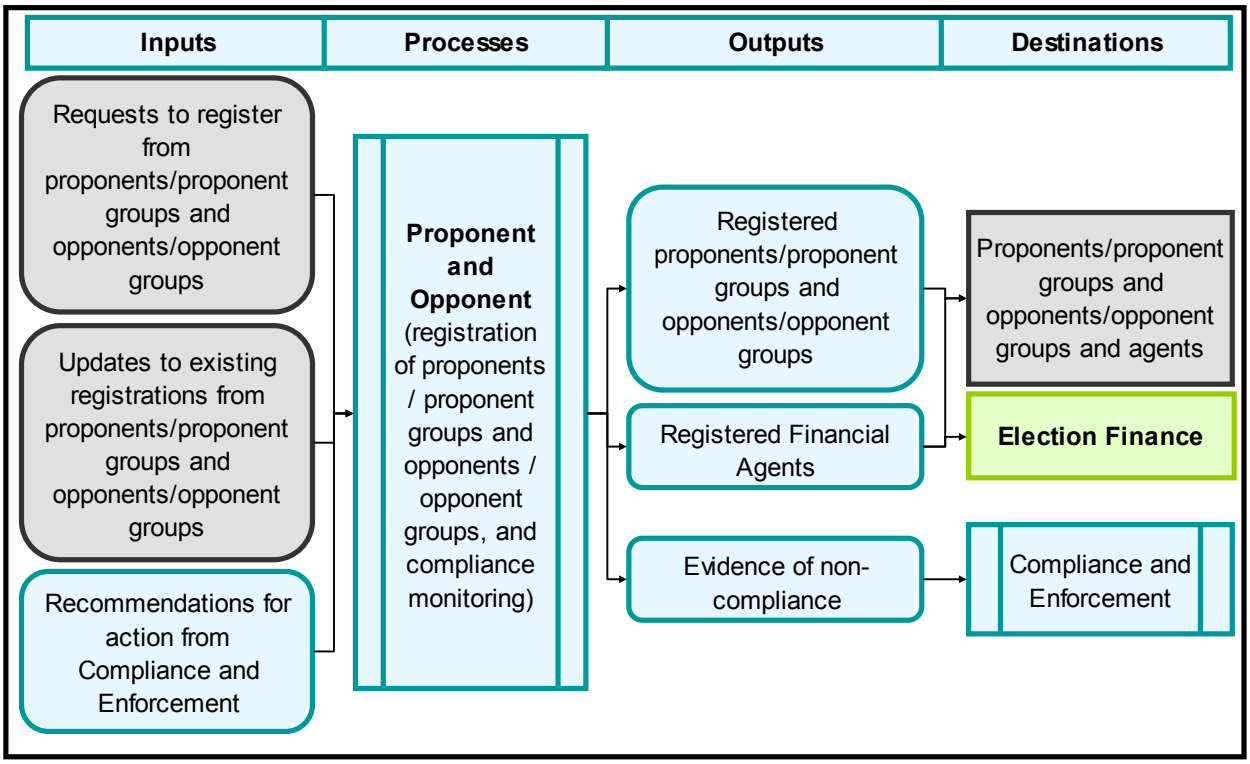
6.3.2.6 Registration of Proponents and Opponents

Proponents and opponents exist as political entities in B.C. and in Québec.[22] They are individuals or organizations who support or oppose an initiative or recall petition, an initiative vote, or a referendum.[23] When two or more individuals or organizations share a financial agent they are referred to as a proponent or opponent *group*. There is always a single proponent in an initiative petition; the registered voter who applied for the issuance of the initiative petition. There may be more than one opponent to an initiative petition or initiative vote, and there may be more than one proponent of an initiative vote. In the case of recall, the MLA who is the subject of a recall petition is always the single opponent. The proponent of a recall petition is the registered voter who applied for the issuance of a recall petition. The registration of proponents and opponents is specifically in relation to an event and after filing requirements are satisfied, the registration is concluded.

Figure 33 summarizes the inputs, outputs and the destinations for Registration of Proponents and Opponents business processes.

[22] A new *Plebicites Act* in Nunavut, if passed into law in early 2010, will introduce registered groups, which are similar to proponents and opponents.
[23] Recall legislation in B.C. establishes a single proponent and opponent (the MLA who is the subject of the recall petition), as opposed to groups.

Figure 33 Registration of Proponents and Opponents - Inputs, Outputs and Destinations



Registration

The registration processes are triggered in different ways, depending on the type of event. For initiative petitions, proponent registration is triggered upon submission of an application, including a deposit and a legislative proposal that is on a matter within the province's jurisdiction. Opponent registration processes are activated by submission of an application within 30 days of approval in principle for the initiative petition. Opponents/opponent groups may not begin their campaign until the Chief Electoral Officer has given notice that they are registered and that an individual has been appointed as their financial agent.

For recall petitions, the proponent registration processes are triggered by submission of an application for the issuance of a recall petition. If the application is complete, a petition is issued to the applicant, who is then referred to as the proponent. The member who is the subject of the petition is automatically the opponent.

The legislation governing the 2009 Referendum on Electoral Reform in B.C. made public funding available to one registered proponent group and one registered opponent group. The public funds were to be used solely for the purposes of opposing or supporting the referendum question. In addition, the groups could raise funds through contributions. The groups were selected by government.

Destinations

Registration decisions are shared directly with proponents and opponents and with **Election Finance.** Evidence of non-compliance may arise during the day-to-day processing of

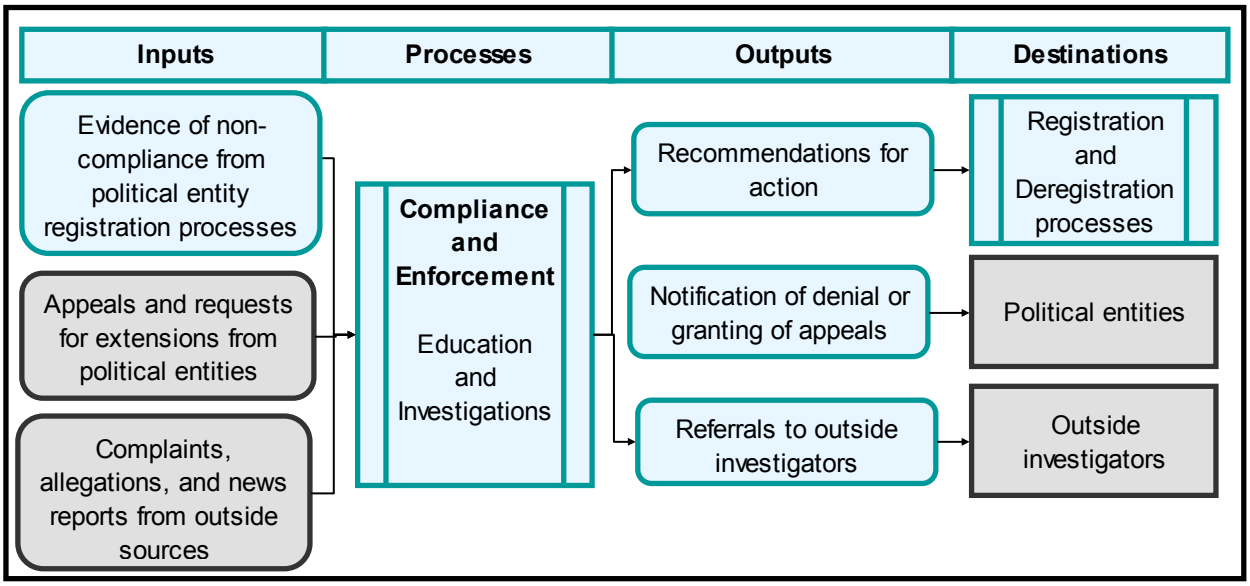
proponent/proponent group and opponent/opponent group registrations. For instance, it may be observed that a referendum proponent has the same financial agent as a candidate and that they are located in the same city. This information might become an input to Compliance and Enforcement processes within **Political Entities** for further investigation and follow-up to determine if the two political entities are working together to sponsor advertising.

6.3.2.7 Compliance and Enforcement

Compliance and enforcement processes in the **Political Entities** business area are mainly concerned with ensuring that all entities that should be registered are registered, that all legislated requirements for registration are satisfied, that appeals and requests for extensions are given due consideration, and that deregistration processes are activated as required by law.

Figure 33 summarizes the inputs, outputs and the destinations for Compliance and Enforcement business processes related to political entities.

Figure 34 Compliance and Enforcement Related to Political Entities - Inputs, Outputs and Destinations



Compliance and Enforcement processes focus on investigating evidence of non-compliance related to political entity registration from a variety of sources and considering and responding to appeals and requests for extensions from political entities. Evidence of non-compliance may come through the day-to-day processing of registrations, the monitoring of the daily news or through public complaints and questions. Some illustrative examples of situations that might launch an investigation include:

- a member of the public challenges the nomination of a candidate,
- a third-party advertiser has a principal officer who is also the financial agent of a candidate,
- an election sign is posted without identifying the sponsor,

- an unregistered tenant group places an advertisement in a local paper during an election that is critical of the current government's policies related to rent control,
- a news report announces that a registered political party has changed leaders, but no leadership contestant has registered
- etc.

Requests from political entities for extensions and other allowances are considered carefully to ensure that political entities are treated fairly and in accordance with the law. Electoral agencies emphasize compliance over enforcement whenever possible. In addition to regular mail and telephone contact, many electoral agencies hold regional information seminars to assist political entities to understand their on-going registration obligations.

Destinations
Compliance and Enforcement processes related to political entities result in recommendations to the registration processes within the **Political Entities** business area and notifications to political entities regarding the granting or denial of their appeals and requests. When there is evidence of an offence having been committed, electoral agencies may refer a case to their own legal counsel, a contracted investigator, and/or to the police for further action.

6.3.3 Outputs of **Political Entities** business processes

6.3.3.1 Registered political entities and their agents

Registered political entities are the main output of the **Political Entities** business area. When registered, political entities gain certain rights (e.g., ability to issue tax receipts) and they must also comply with the appropriate financing requirements. Local legislation specifies the supporting agents that political entities must appoint (e.g., financial agents, auditors, scrutineers, etc.).

6.3.3.2 Deregistered or suspended political entities

In some cases, suspension or deregistration is the penalty required by law when a political entity fails to comply with financing requirements. The **Election Finance** business area identifies these situations and the process of suspension or deregistration is conducted within **Political Entities**.

6.3.3.3 Withdrawn candidates

The withdrawal or death of a candidate is handled differently in each jurisdiction. These changes can confuse the electorate and electoral legislation is designed to ensure sufficient time to notify the electorate of the change before voting begins and, ideally, to reflect the changes on the ballots.

6.3.3.4 *Gazette* and website notices

Local legislation specifies when *Gazette* notices need to be published to announce the registration of political entities and changes in their registration status. Electoral agencies may also use their websites to announce political entity registrations, suspensions, and deregistrations.

6.3.3.5 Notifications of denial or granting of appeals to political entities

After consideration is given to requests for extensions and other allowances, political entities are notified of the result through Compliance and Enforcement processes.

6.3.3.6 Evidence for compliance and enforcement

The day-to-day processing of political entity registrations may identify evidence of non-compliance with registration requirements. When this happens, the information becomes an input to Compliance and Enforcement processes where it is investigated further.

6.3.3.7 Referrals to outside investigators

When there is evidence of an offence having been committed, electoral agencies may refer a case to their own legal counsel, a contracted investigator, and/or to the police for further action.

6.3.3.8 Lists of candidates and ballot names for **Events**

Registration of Candidates processes produce the official list of candidates and ballot names for use in an election. These products are used by the **Events** business area in the administration of voting and production of ballots.

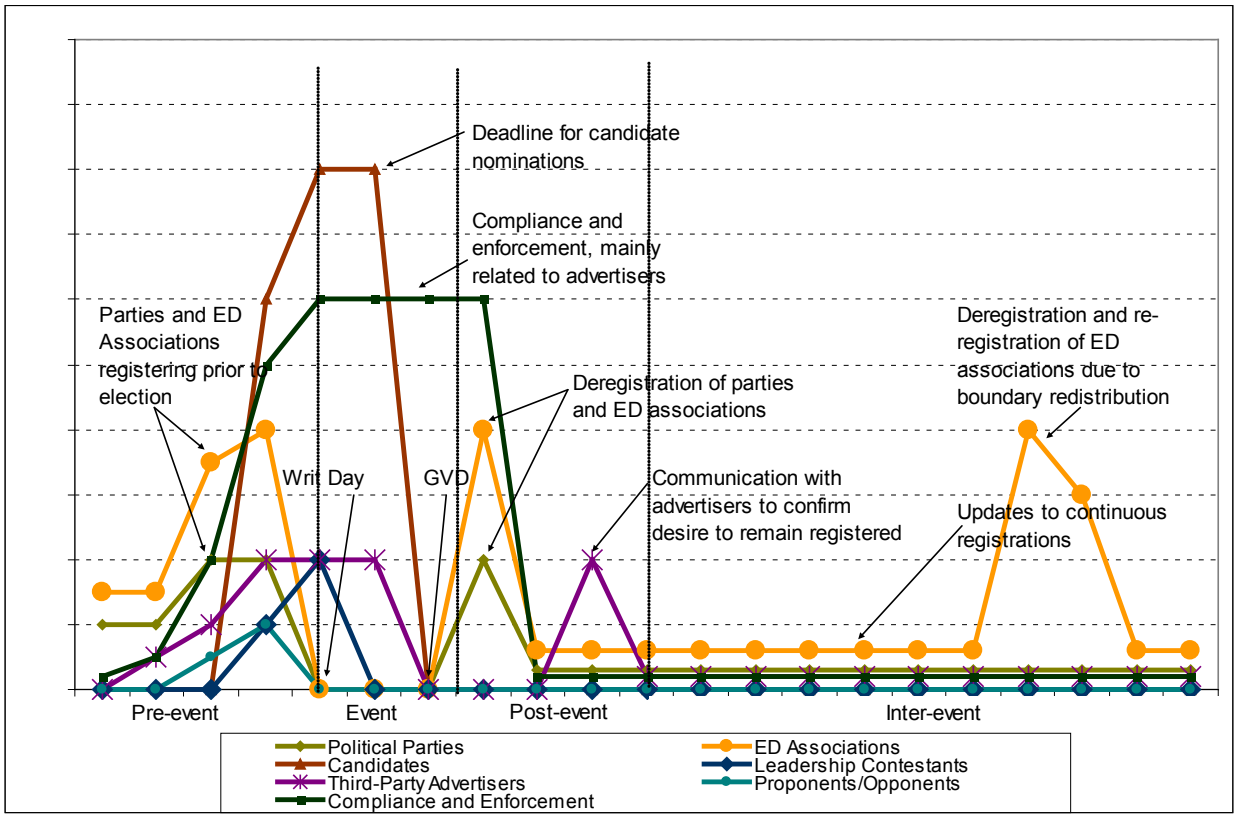
6.3.3.9 Candidate nomination deposits for **Election Finance**

The candidate nomination deposit is collected by the Registration of Candidates process and given to the **Election Finance** business area for potential reimbursement to the candidate.

6.4 Political Entities and the Business Cycle

As shown in Figure 35, some political entities are engaged with the electoral agency throughout the business cycle because of the continuous nature of their registration, while others are mainly involved during a concentrated period of time during the pre-event and event periods. The picture below represents a business cycle when ED redistribution takes place during the inter-event period, requiring all ED associations to deregister and re-register. Below is a description of the main focus of activity in the **Political Entities** business area within each of the four business cycle phases: pre-event, event, post-event and inter-event.

Figure 35 Variation in Level of Effort Through the Business Cycle, By Political Entity Business Process



6.4.1 Pre-event phase

Activity related to the **Political Entities** business processes begins to increase during the pre-event phase as entities planning to participate in the upcoming event begin to register. New political parties and their ED associations, as well as third-party advertisers begin to register during this period. In B.C., candidate standing nominations for general elections also begin during the pre-event phase. Proponents and opponents and leadership contestants may also register during the pre-event phase.

6.4.2 Event phase

During the event phase, a significant amount of effort is devoted to processing candidate nominations and producing the official list of candidates and ballot names. Compliance and enforcement processes related to registrations peak during this phase, especially for jurisdictions that require third-party advertisers to register.

6.4.3 Post-event phase

In some jurisdictions, political parties and their ED associations are deregistered if they do not run a specified number of candidates in an election. These deregistrations take place during the post-event phase. In B.C., where third-party advertiser registrations are on-going, letters are sent to inform advertisers of the option of voluntary deregistration.

6.4.4 Inter-event phase

During the inter-event phase, electoral agencies continue to maintain the currency of registration information for all political entities that are registered on a continuous basis. This may include political parties, ED associations and third-party advertisers. When ED boundaries are redistributed, existing ED associations must be deregistered and new ED associations, tied to the new electoral districts, may be registered. This occurs approximately every second business cycle.

6.5 Relationship of Political Entities Business Area to Other Business Areas

Figure 21 on page 71 provides a high-level view of how the **Political Entities** business area relates to other business areas within the organization. Inputs and outputs are exchanged directly between **Political Entities** and two other business areas: **Election Finance and Events**.

The **Political Entities** business processes are very closely tied to the **Election Finance** business area. All registered political entities are subject to the spending limits set by the jurisdiction and must satisfy its reporting requirements. When these requirements are not satisfied, the penalty required by law is often deregistration or suspension, processes carried out in the **Political Entities** business area. Candidate nomination deposits are collected by the **Political Entities** business area, but handled by the **Election Finance** business area.

The **Events** business area relies on **Political Entities** for the list of candidates, ballot names and changes to political entity information that will impact the administration of events.

6.6 Current Issues Affecting Political Entities Business Area

6.6.1 Related to the Registration of Candidates

6.6.1.1 Late filing of nomination papers by candidates

No matter how long the nomination period, candidates tend to file their nomination papers toward the end of the period. This means many individuals may be incurring financing transactions before they are official candidates. A high volume of late nomination filings can also result in delays in ballot printing. Given the tendency of candidates to wait until the end of the nomination period to file, some jurisdictions have recommended shortening the nomination period in order to increase the period of time between the close of nominations and the start of voting. Jurisdictions with fixed dates for general elections, such as B.C., also allow the filing of nominations prior to Writ Day.

6.6.2 Related to Third-Party Advertisers

6.6.2.1 On-going Registration of Third-party Advertisers

In B.C., third-party advertisers are registered throughout the business cycle on a continuous basis. On-going registration requires the continuous application of Compliance of Enforcement and Registration and Deregistration of Third-Party Advertisers processes throughout the business cycle. It may be more efficient to register advertising sponsors with respect to a particular event.

6.6.2.2 Ambiguity regarding what constitutes election advertising

It is important to have a clear definition of what constitutes election advertising, particularly given the extensive access of individuals to new forms of social networking media. The

definition of advertising should state what is considered to be advertising and what is not considered to be election advertising. A definition provides needed clarity to individuals to assist them to determine whether they need to register and also makes it easier for the electoral agency to enforce the requirement.

6.6.3 General

6.6.3.1 Balance between compliance and enforcement

The focus of electoral agencies is on encouraging compliance with the legislation rather than enforcing penalties. Agencies invest considerable energy in communicating with political entities through newsletters and information sessions, in addition to personal telephone calls, emails and letters, in order to proactively support political entities in meeting their obligations under the law.

6.7 Political Entities During the Next Ten Years

6.7.1 Online registration

See Electronic registration and filing, page 113.

6.7.2 Increased disclosure and accessibility of registration information on website

Electoral agencies rely on current and accurate political entity contact information to conduct their business. In many jurisdictions, the law requires that telephone numbers and addresses of the principal officers, financial agents, official agents, candidates, etc. be made available for public inspection. Many individuals do not wish to have their personal or residential contact information made public and, therefore, provide another address. For instance, the principal officers of an ED association may all provide the address and phone number of the ED association office, rather than their personal phone number and residential address. The issue for electoral agencies is that, should the number provided change, they may have no alternate contact information with which to contact the agents related to the entity.

6.7.3 More jurisdictions registering third parties?

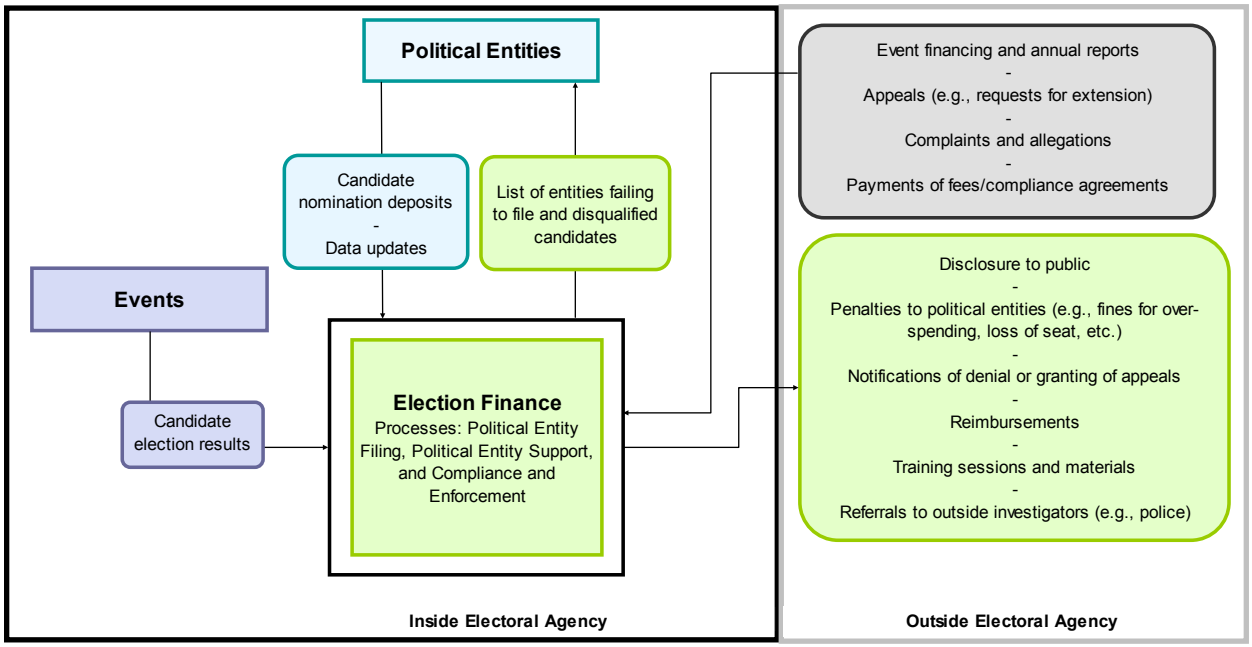
It is expected that more jurisdictions will require third-party advertisers to register in the future. At the time of writing, Manitoba's legislation has been amended to require registration of third-party advertisers, but the legislation has not yet been proclaimed.

7.0 ELECTION FINANCE

The **Election Finance** business area is concerned with ensuring that registered political entities abide by their jurisdiction's rules with respect to event financing and reporting. This business area:

1. supports political entities to ensure they understand the jurisdiction's restrictions on contributions, transfers, expenses, and their reporting obligations;
2. collects, reviews and discloses financial information from registered political entities; and
3. enforces election finance laws.

Figure 36 Election Finance Business Processes and Interactions



7.1 Overall Objectives for Election Finance Business Area

- To educate and support political entities to comply with the jurisdiction's financing and reporting rules.
- To review, audit and prepare for public disclosure event-related financing reports and annual financial reports.
- To enforce the law by applying administrative penalties as required.
- To fairly and efficiently respond to complaints, allegations and appeals.

7.2 Election Finance Business Area Background

In the area of electoral finance, the law is intended to level the playing field and, in some cases, to separate the interests of political entities from corporations and trade unions. It does this by placing restrictions on the source and/or amount of incoming funds (contributions), how funds can be shared by related political entities (transfers), and how campaign funds are spent (expenses).

7.2.1 Contributions

Political entities receive contributions from supporters to finance their campaigns. Contributions may take the form of money or goods or services received without full compensation to the provider. Some jurisdictions place restrictions on the contributions that can be accepted by political entities; for instance, some limit the total value of contributions or the amount that can be received in cash, some prohibit foreign contributions, and some prohibit contributions from trade unions, corporations, and charitable organizations.

Political entities are required to keep records of their contributors' identities, the date, and the amount of each contribution. In the case of goods and services, the market value net of any compensation provided by the political entity must be estimated and counted as a contribution. For individual contributions that exceed a specified threshold, political entities may be required to publicly disclose the identity of the contributor, the date, the value of the contribution, and the type of contributor (e.g., individual, organization, etc.). Because of the requirement to disclose, legislation usually prohibits anonymous contributions or permits them only for small amounts, such as under $50.

In order to ease the burden of reporting on political entities, some jurisdictions establish a threshold below which entities are not required to disclose details of their contributions. For instance, in B.C., political parties are only required to disclose the details of contributors who donate more than $250 in total.

Jurisdictions support political entities to raise funds through contributions by allowing them to issue tax receipts for eligible contributions.

7.2.2 Transfers

Transfers are non-reciprocal exchanges of money, goods or services among related political entities—a registered political party, its registered ED associations, candidates or any leadership contestants. Transfers are regulated to ensure that related political entities do not shift expenses between one another to take advantage of different expenses limits for each entity. For instance, in B.C., if a registered political party incurs an expense that is for the primary purpose of promoting a candidate, the election expense is the candidate's expense and must be recorded and disclosed as such.

7.2.3 Expenses

Political entities incur expenses as they undertake activities to promote or oppose, directly or indirectly, a registered political party, the selection of a leadership contestant, or the election of a candidate. To ensure a level playing field, jurisdictions establish rules about what constitutes an election expense and they may place limits on the amount of expenses that can be incurred in a specified time period.

Political entities are required to report their election and other expenses in election financing reports and/or annual financial reports. Local legislation specifies the penalties that apply when a political entity exceeds the applicable election expenses limit, files a false or misleading report, or fails to file a report by the deadline.

Many jurisdictions assist registered political parties and /or candidates by reimbursing a portion of their election expenses if they achieve a certain percentage of the vote. For example, in B.C., a candidate's nomination deposit is refunded if the candidate receives at least 15 percent of the total accepted votes for the electoral district. Eight jurisdictions (Canada, Newfoundland and Labrador, Nova Scotia, New Brunswick, Québec, Ontario, Manitoba and Saskatchewan) also reimburse part of the election expenses of candidates if they achieve a certain percentage of the vote.

7.2.4 Direct public funding

Some jurisdictions also provide direct funding to qualifying registered political parties in the form of an allowance (Canada, Prince Edward Island, New Brunswick, Manitoba, and Québec). At the federal level, political parties that achieved at least 2 percent of the total valid votes cast across the country, or 5 percent of the valid votes in the electoral districts in which they ran candidates, are eligible for a quarterly allowance. The size of the allowance is directly related to the total number of valid votes received by the party. As another example, for B.C.'s 2009 Referendum on Electoral Reform, the government provided $1 million in funding to be divided equally between the registered proponent and opponent groups.

7.2.5 Reporting and disclosure

Reporting is a key part of ensuring transparency and compliance in the funding of political campaigns. Political entities are required to submit financing reports in relation to particular events and those entities with on-going registration (e.g., political parties and electoral district associations) may additionally be required to submit annual financial reports. Filing is also required upon deregistration. Under certain circumstances, an auditor's report may also be required.

Some or all of the financial information reported to the electoral agency is then disclosed to the public. For instance, at the national level, all contributions in excess of $20 must be receipted and reported to Elections Canada. The threshold for public disclosure is slightly higher; the federal agency publicly discloses contributions totalling more than $200 to registered political parties, registered electoral district associations, leadership contestants, and candidates.

7.2.6 **Election Finance** data elements

The standard filing information collected from registered political parties and ED associations is documented in detail in the Electoral Technology Accord's 2006 Common Data Model. The data elements for all other political entities, candidates, third-party advertising sponsors, leadership contestants, and proponent and opponent groups have not yet been defined by the Technology Working Group.

In general, data elements related to filing for political entities are divided into four broad groups: balance sheet, income statement, contributions, and transfers. The data elements relating to a

particular report include, but are not limited to, information about the reporting period, the report deadline, the receipt and accepted dates, and the report's status. There are also a series of data elements relating to requests for extension.

For more information about the specific data elements related to **Political Entitites**, please refer directly to the 2006 Common Data Model.

7.3 Election Finance Business Area – Inputs, Business Processes, and Outputs

The **Election Finance** business area is described in this section in terms of its inputs, business processes and outputs.

7.3.1 Inputs to **Election Finance** business processes

The main inputs to the **Election Finance** business processes are received directly from registered political entities.

7.3.1.1 Event financing reports and annual financial reports from political entities

Political entities submit financing reports related to particular events and annual financial reports as required by local legislation. Upon deregistration, political entities also submit financial reports to cover the period between their last annual financial report and the date of deregistration.

7.3.1.2 Clarification and/or amended reports from political entities

The review of a report may identify areas requiring clarification, missing information, and in some cases, missing requirements, such as an auditor's report. Reviewers follow-up directly with financial agents when this occurs to obtain clarification, missing requirements, or, in some cases, an amended report.

7.3.1.3 Appeals and requests for extensions from political entities

Political entities can appeal decisions in a number of areas related to election finance, including the agency's assessment of expenditures eligible for reimbursement. Political entities may also request extensions to filing deadlines in extraordinary circumstances such as the serious illness or death of a financial agent.

7.3.1.4 Complaints and allegations from the public

Complaints and/or allegations from the public may assist the electoral agency with compliance and enforcement. For instance, a member of the public may allege that a registered political party is purchasing campaign signs on behalf of a candidate, or that a candidate is collecting anonymous contributions that exceed the limit of the jurisdiction.

7.3.1.5 Legislation and amendments from government

Guides and forms are produced in the **Election Finance** business area and these must be updated to reflect any changes in legislation.

7.3.1.6 Fee payments from political entities

In some cases, the penalty imposed on a registered political entity takes the form of a fee. The payment of these fees is an input to **Election Finance**.

7.3.1.7 Data updates from **Political Entities**

In order to ensure that political entities comply with election finance laws, the **Political Entities** business area must apprise **Election Finance** of all newly registered political entities and any changes to the registration status or contact information for existing registered political entities.

7.3.1.8 Candidate nomination deposits from **Political Entities**

Nomination deposits are collected from candidates as part of the registration process administered by the **Political Entities** business area. In some jurisdictions, these deposits are reimbursed by the **Election Finance** business area when local criteria are met.

7.3.1.9 Candidate election results from **Events**

Many jurisdictions have criteria for reimbursing candidate nomination deposits that depend on how the candidate performed in the election. For instance, in Yukon, candidates who receive at least 25 percent of the number of votes received by the elected candidate are reimbursed their nomination deposit.

7.3.2 Business processes in **Election Finance**

There are three business processes in the **Election Finance** business area:

1. Entity Filing
2. Political Entity Support
3. Compliance and Enforcement

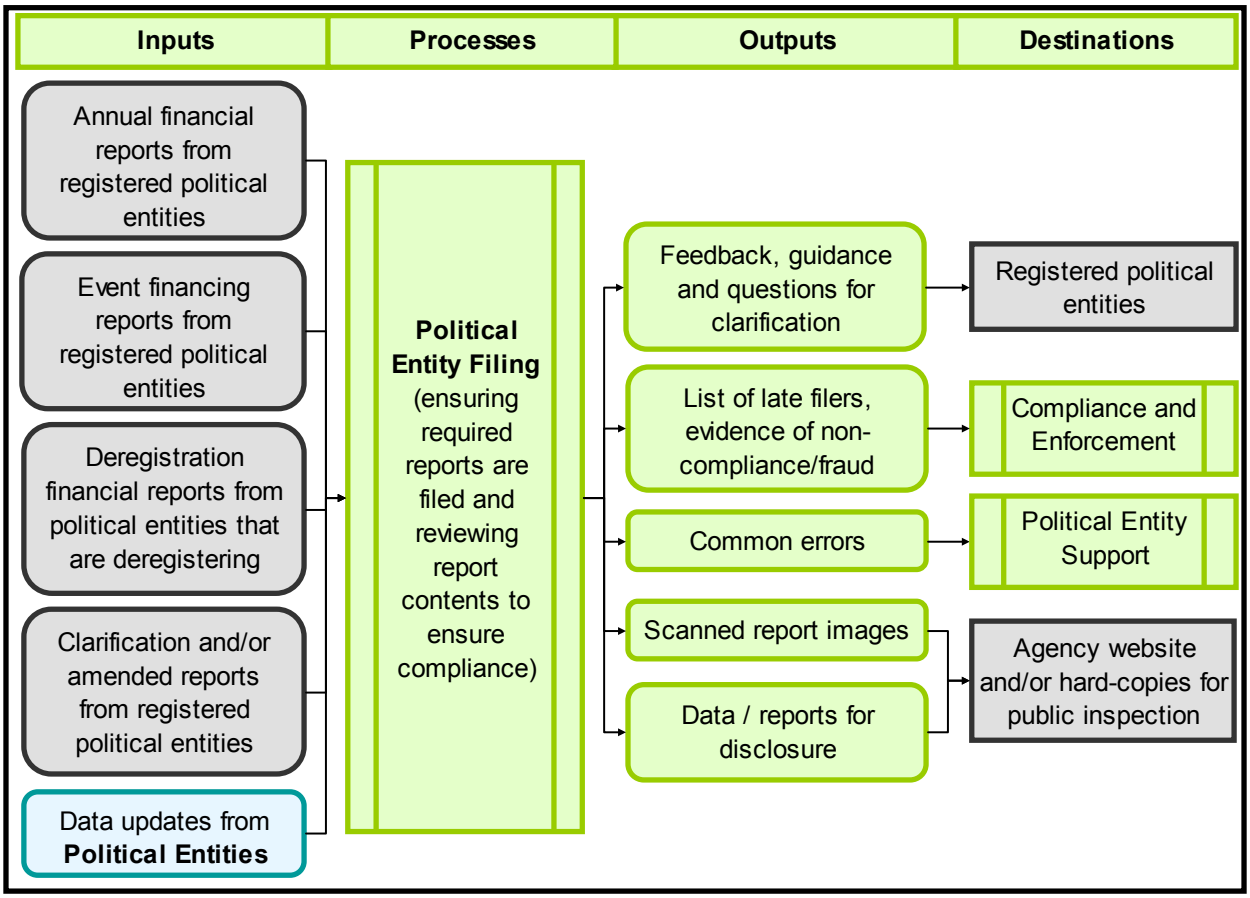
What follows is a description of each of the business processes in terms of inputs, what is produced as a result of the processes, and where those outputs are used.

7.3.2.1 Political Entity Filing

Business processes in Political Entity Filing are mainly concerned with ensuring that reports meet the requirements, as specified by local legislation. Late filers and serious cases of non-compliance (e.g., suspected fraud or substantial missing information) are referred to Compliance and Enforcement processes within the **Election Finance** business area. Each jurisdiction has its own filing requirements and deadlines.

Figure 37 summarizes the inputs, outputs and the destinations for Political Entity Filing business processes.

Figure 37 Political Entity Filing - Inputs, Outputs and Destinations



The volume of work related to Political Entity Filing business processes is characterized by dramatic peaks and valleys. The largest peak occurs during the post-event phase when election financing reports are due. In B.C., for instance, following the 2009 general election, 345 candidate, 15 registered political party, 90 ED association, and 280 third-party advertiser reports were reviewed. In most jurisdictions, reports are submitted in paper format for manual review. To prepare for a post-event review, electoral agencies hire and train temporary workers who work alongside permanent staff in conducting the review.

Reports are reviewed to ensure compliance with applicable legislation and regulations, agency policies and procedures, and generally accepted accounting principles. Using checklists, the team of reviewers works through the following stages for each report:

- recording receipt of the report;
- performing initial review to ensure required elements are satisfied to allow acceptance of the report as filed;
- reviewing report to ensure compliance;
- reviewing report in context of reports submitted by related entities to ensure that transfers have been accurately recorded and that contributions and expenses have been reported by the appropriate entity;
- scanning report for publication to the web; and

- downloading or data entering information for use in agency reports and/or a searchable database.

In many cases, the review identifies areas requiring clarification, missing information, and in some cases, missing requirements, such as an auditor's report. Reviewers follow-up directly with financial agents when this occurs to obtain clarification. Reviewers also document common errors made by political entities and this informs the development of future guides and forms by Political Entity Support. Late filers are identified by comparing the list of accepted reports to the full list of registered political entities from the **Political Entities** business area.

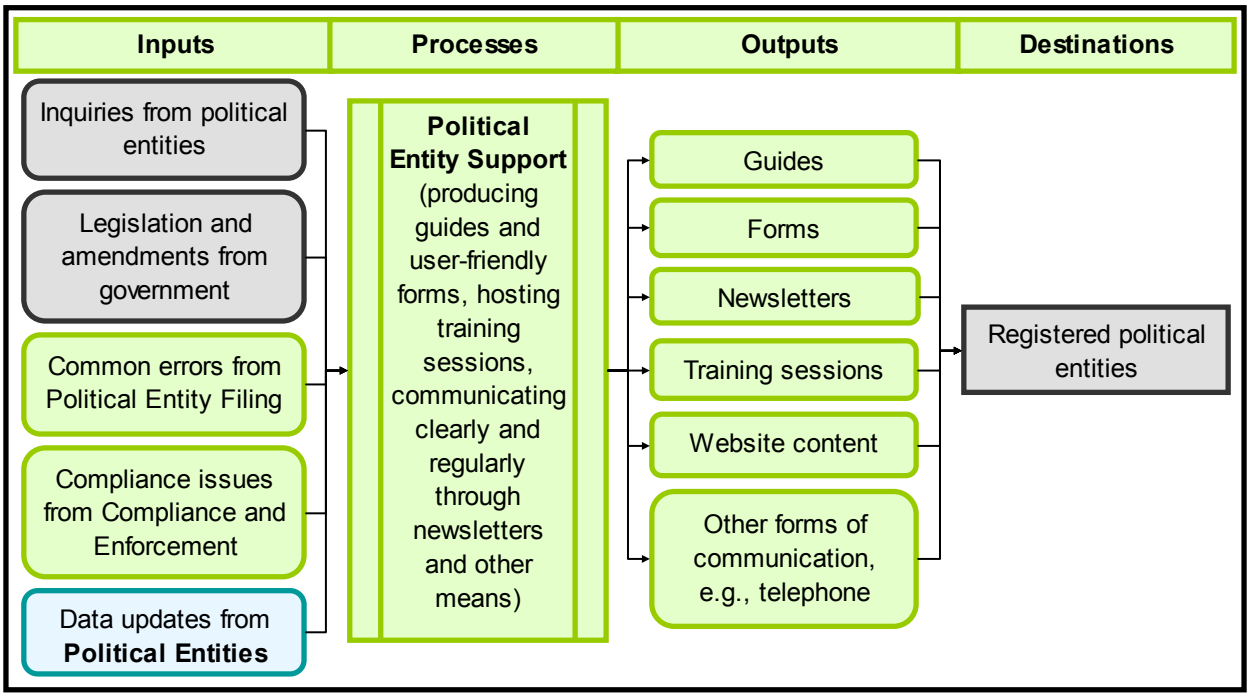
Destinations
Registered political entities receive feedback and questions of clarification from Political Entity Filing business processes. Some outputs of Political Entity Filing become inputs to other **Election Finance** business processes. Evidence of serious non-compliance, whether it is the absence of a required report, or missing or misleading information in a submitted report, is dealt with by Compliance and Enforcement processes. Common errors detected in the course of the review become an input to Political Entity Support where they inform the development of guides and forms for future use, as well as training sessions. Finally, the content of reviewed reports is destined for disclosure through the agency's website and/or hard-copies available for public inspection. Some jurisdictions make contribution information available online through a searchable database.

7.3.2.2 Political Entity Support

Electoral agencies work proactively to encourage and support compliance by ensuring all registered political entities understand their obligations. This is done by reminding entities about their obligations and deadlines, producing guides and forms, holding training sessions and communicating regularly with political entities through newsletters and other forms of communication.

Figure 38 summarizes the inputs, outputs and the destinations for Political Entity Support business processes.

Figure 38 Political Entity Support - Inputs, Outputs and Destinations



Political Entity Support processes are intended to reduce the workload in the areas of Political Entity Filing and Compliance and Enforcement by supporting political entities to understand and comply with the applicable election finance rules. The first objective of Political Entity Support business processes is to ensure that entities comply with election finance requirements.

In terms of filing, Political Entity Support processes use the complete and current list of registered political entities maintained by the **Political Entities** business area, to send letters and call political entities to remind them to file the required reports. Many agencies also send newsletters to political entities in order to raise awareness of the rules governing election financing, reporting requirements, and upcoming deadlines.

Through Political Entity Support processes, electoral agencies produce guides that are targeted to each type of registered political entity and their financial agents. They use plain language to explain the requirements of local election finance law, as well as other applicable legislation, such as the *Income Tax Act*.

Electoral agencies also produce a variety of reporting forms (e.g., annual financial, event financing, and deregistration). Traditionally, reporting forms have been distributed and submitted in paper format. Increasingly however, agencies are looking to electronic forms and/or electronic filing to simplify the filing process for political entities and to reduce the number of manual checks that need to be performed by reviewers. The content of all forms and guides is regularly reviewed and updated to reflect common errors and misinterpretations on the part of political entities and amendments to legislation.

Many agencies provide timely and focused information to political entities through training sessions and/or periodic newsletters. Training sessions are often held at various locations throughout the jurisdiction to facilitate access. The agency's website is an increasingly important source of information for political entities and the election finance content for the site is produced as part of Political Entity Support.

Communications with political entities are generally in writing to ensure a paper trail. A note-to-file is created for all verbal communications with political entities to ensure that a comprehensive record of direction given to each political entity is maintained in a single file.

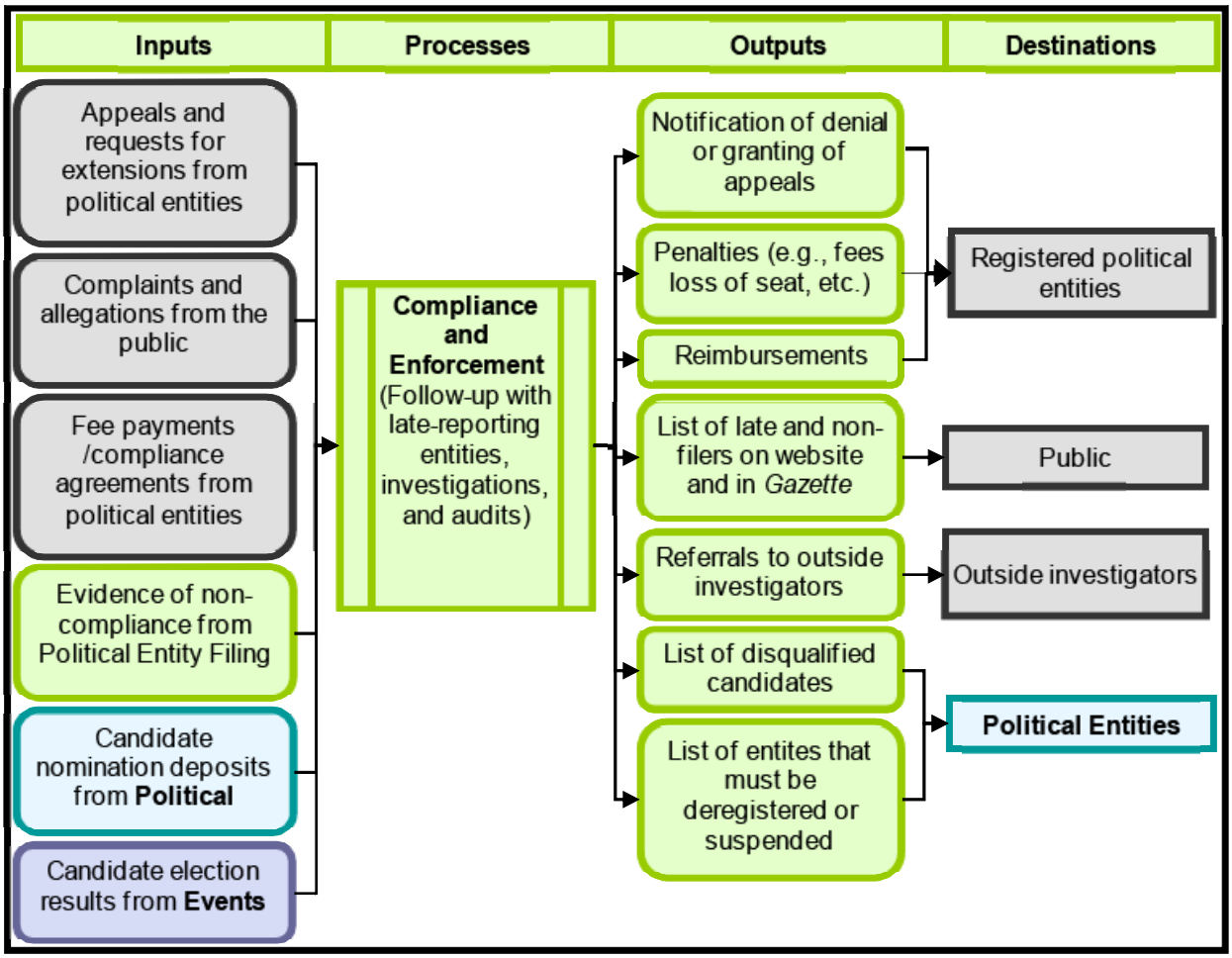
Destinations
Registered political entities are the destination for all of the outputs of Political Entity Support processes.

7.3.2.3 Compliance and Enforcement

Compliance and Enforcement processes are reactive processes that are activated by a failure on the part of a registered political entity to meet the requirements of the law in an area of election finance. This failure may be reflected in a late filing, a report that does not meet requirements, evidence that expenses limits were exceeded, or a failure to file a required report. The goal of the processes is to bring political entities into compliance. Where this is not possible, electoral agencies apply penalties as provided for in local legislation. The Chief Electoral Officer is responsible for ensuring that electoral legislation is enforced in all jurisdictions.

Figure 39 summarizes the inputs, outputs and the destinations for Compliance and Enforcement business processes.

Figure 39 Compliance and Enforcement - Inputs, Outputs and Destinations



Minor instances of non-compliance are typically resolved through the standard inquiry processes that are part of Political Entity Filing. Political Entity Filing processes refer more serious cases of non-compliance, evidence of fraud, and non-filers to Compliance and Enforcement processes where investigation and auditing procedures are used to determine whether penalties should be applied to the entity. Reports may also be selected for a more thorough review through random selection, a risk-based assessment, or on the basis of the general appearance of the report. Compliance and Enforcement processes may also be triggered by complaints and allegations received from outside sources.

The penalties applied to political entities vary by jurisdiction. Penalties may be applied in the following instances: late filing, failing to file, exceeding expenses limits, or filing a false or misleading report. Penalties include late filing fees, disqualification to run as a candidate, loss of a seat as an elected member, or suspension or deregistration of a political party or electoral district association. There are also fines and possible imprisonment for individuals convicted of an offence.

In B.C., political entities may apply to the Supreme Court for relief from penalties for their filing obligations or for exceeding expenses limits. When the electoral agency's investigation

uncovers evidence of an offence having been committed, electoral agencies may refer a case to a contracted investigator or the police for further action. As an alternative to prosecution and the court process, Nunavut's Integrity Commissioner may negotiate compliance agreements with persons alleged to have committed offences under the *Nunavut Elections Act*. Examples of the requirements of such an agreement include making a payment, promising future compliance, community service, offering a private and/or public apology, seeking atonement in accordance with traditional Inuit practice, etc.

Compliance and Enforcement processes also deliver reimbursements to political entities where local criteria are met. For instance, candidate nomination deposits may be reimbursed if a candidate achieves a certain percentage of the vote in an election. Some jurisdictions also reimburse a defined portion of political party and/or candidate election expenses when a certain percentage of the vote, as defined in local legislation, is achieved.

Destinations
Most of the outputs of Compliance and Enforcement processes are destined for the registered political entities involved; they are notified of the outcome of their appeals, levied penalties, and given reimbursements through these processes. Some jurisdictions require the names of late and non-filers to be published in the jurisdiction's *Gazette* publication and agencies may also inform the public by posting this information on their websites. When the penalty involves deregistration or suspension of a political entity, the information is sent to the **Political Entities** business area for action.

7.3.3 Outputs of **Election Finance** business processes

7.3.3.1 Disclosure to public

Legislation requires that certain financial information from registered political entities be disclosed to the public. The information may be made available for public inspection at the office of the agency and/or posted to the agency's website. Some agencies are also making contribution information available online through a searchable database.

7.3.3.2 Notifications of denial and granting of appeals

After consideration is given to requests for extensions and other allowances, political entities are notified of the result through Compliance and Enforcement processes.

7.3.3.3 Fees and other penalties to political entities

Compliance and Enforcement processes in the **Election Finance** business area identify the appropriate fee to be levied against registered political based on local legislation. Penalties such as fees and loss of a seat are levied directly by **Election Finance**. Penalties involving suspension or deregistration of a political entity are handled by the registration processes in the **Political Entities** business area.

7.3.3.4 Reimbursements to political entities

Where the criteria specified in local legislation are met, Compliance and Enforcement processes reimburse political candidates their nomination deposits and some jurisdictions also reimburse or a portion of election expenses to political parties and/or candidates.

7.3.3.5 Lists of entities failing to file and disqualified candidates for **Political Entities**

Some jurisdictions suspend candidates and financial agents from participating in the next election if they fail to file a financing report. The list of such entities is provided to **Political Entities** to ensure their registration is not processed during the next event.

7.3.3.6 Training sessions and materials for political entities

As an output of Political Entity Support, electoral agencies produce training sessions, guides, forms and newsletters to proactively promote compliance.

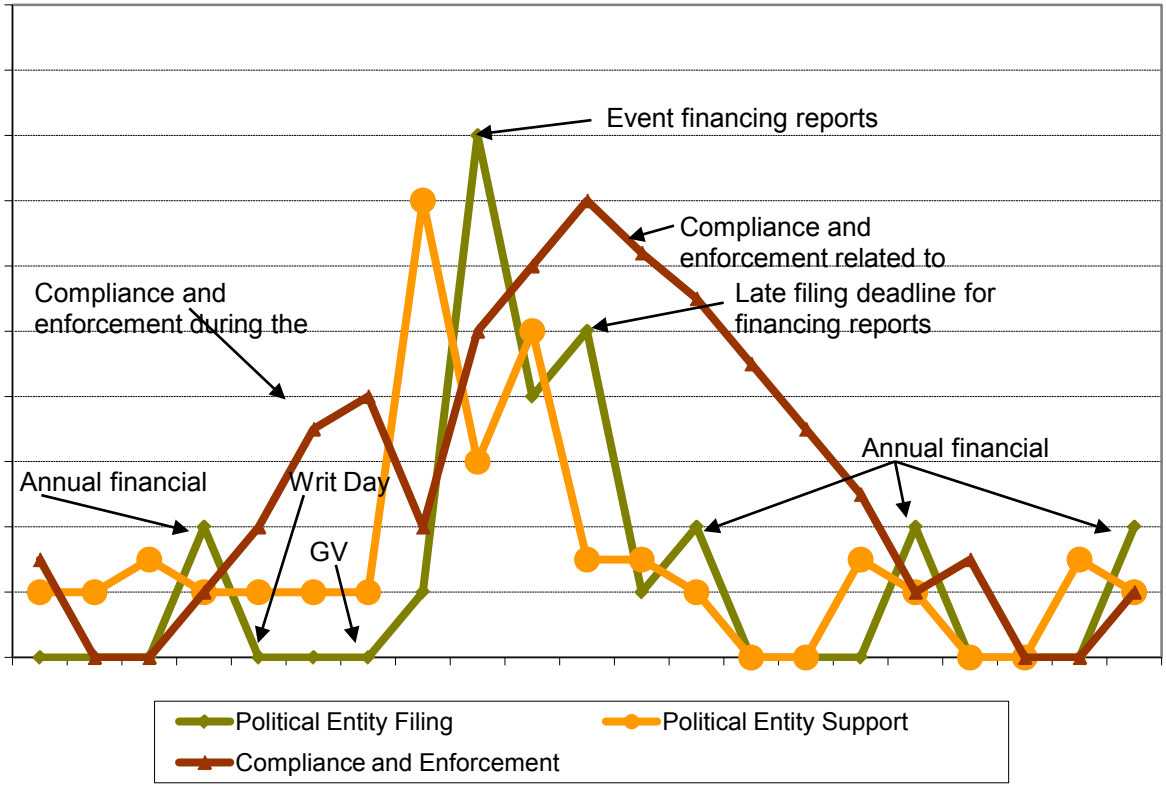
7.3.3.7 Referrals to outside investigators

When the electoral agency's investigation uncovers evidence of an offence having been committed, the electoral agency may refer a case to a contracted investigator or the police for further action.

7.4 Election Finance and the Business Cycle

The volume of work related to **Election Finance** varies throughout the business cycle, with small peaks annually that coincide with the filing of annual financial reports. All three business processes experience a large peak in activity during the post-event period when event financing reports are submitted and reviewed. Below is a description of the main focus of activity in the **Election Finance** business area within each of the four business cycle phases: pre-event, event, post-event and inter-event.

Figure 40 Variation in Level of Effort Through the Business Cycle, By Election Finance Business Process



7.4.1 Pre-event phase

A spring general election with annual financial reports due during the pre-event phase, shortly before the writs are issued is depicted in Figure 40. Activity in the area of Political Entity Support increases prior to the annual financial report filing deadline, as the agency works with entities to encourage timely and accurate filing. Political Entity filing processes then increase as the agency undertakes the review. Activity in the area of Compliance and Enforcement lags slightly behind Political Entity Filing as these processes handle requests for extensions, non-filers and sometimes lengthy investigations.

7.4.2 Event phase

During the event phase, Compliance and Enforcement processes are very active as the agency investigates and responds to complaints and allegations from the public. Because of their high numbers, Compliance and Enforcement processes are particularly active during the event for agencies that regulate third-party advertisers. Electoral agencies respond to a steady flow of questions from registered political entities during the event phase, resulting in activity in the Political Entity Support Processes.

7.4.3 Post-event phase

The post-event phase is the busiest phase of the business cycle for the **Election Finance** business area. Financing reports are due during this phase and the number of political entities involved and the scope of the review effort results in peaks in all three business processes. Because they are pro-active in nature, Political Entity Support processes precede Political Entity Filing processes. Compliance and Enforcement processes pick up after the deadline for filing and continue into the inter-event period.

7.4.4 Inter-event phase

The inter-event period is punctuated at 12-month intervals by the review of annual reports submitted by political parties, electoral district associations, and any other entities with annual reporting requirements.

7.5 Relationship of Election Finance to Other Business Areas

Figure 36 on page 99 provides a high-level view of how the **Election Finance** business area relates to other business areas within the organization. Inputs and outputs are exchanged directly between **Election Finance** and two other business areas: **Political Entities and Events**.

The **Election Finance** business area is very closely tied to **Political Entities** and these business areas are often organized into the same functional unit within an agency. While **Political Entities** maintains a current and accurate list of registered entities, **Election Finance** uses that list to ensure that all registered entities comply with election finance law.

The **Events** business area supplies **Election Finance** with the election results, which some jurisdictions use to determine whether reimbursements are needed.

7.6 Current Issues Affecting the Election Finance Business Area

7.6.1 Related to Political Entity Filing

7.6.1.1 Lack of adherence to deadlines

The failure of entities to file by the deadline is a chronic problem experienced by some electoral agencies. In spite of best efforts in the areas of Political Entity Support, a relatively high proportion of reports are submitted late in some jurisdictions.

7.6.1.2 Quality of submissions

The effort and time required to process reports through the review is high because the quality of reports submitted is often relatively low and the process in most jurisdictions is largely paper-based and manual. Many political entities, especially smaller entities, such as third-party advertisers or candidates, have little book-keeping experience and they may choose to act as their own financial agent. Also, after an election, the interest of financial agents and candidates declines dramatically so little attention is paid to preparing the reports. This lack of interest is evidenced by the number of reports that contain simple adding errors and/or apparently careless omissions.

7.6.1.3 Manual processing

The report review and preparation for disclosure processes in most jurisdictions currently rely heavily on manual processes. Reports are generally submitted in paper format. Some jurisdictions review reports in their original format, others data capture report contents so that the identification of addition errors and other inconsistencies can be automated, and still others are receiving at least a portion of their reports electronically. In preparation for public inspection, it is sometimes necessary for telephone numbers to be manually obscured. This involves photo-copying the report, striking through the phone numbers with a black marker on the copy, and then photo-copying the marked copy to obtain a version that is suitable for public inspection. Some jurisdictions scan reports for posting on their website.

7.6.1.4 Temporary staff needing specialized knowledge

Because election finance work is characterized by peaks and valleys in terms of volume, most jurisdictions hire workers on a temporary basis to conduct the review alongside a small core of permanent staff. The availability of qualified workers depends, to a large extent, on the performance of the overall economy and the level of competition from other employment opportunities.

Agencies attempt to recruit reviewers with book-keeping and auditing skills. Nonetheless, electoral agencies must invest significantly in training the temporary reviewers in the specialized knowledge necessary to accurately review the reports. When business cycles are staggered across jurisdictions, electoral agencies may loan their own qualified, permanent staff to the review effort of another electoral agency.

7.6.2 Related to Political Entity Support

7.6.2.1 Poor attendance at regional training sessions

One of the methods used to foster compliance is to conduct training sessions in the field to promote accessibility. This is an expensive use of staff time and resources and many sessions

are poorly attended. Political entities are often staffed by volunteers and many do not take the opportunity to attend an in-person training session even when it is offered in their local community.

7.7 Election Finance During the Next Ten Years

7.7.1 Online training (web seminars)

Web-based or online training may be one solution to the issues electoral agencies are encountering with declining attendance at regional training sessions. A web-based seminar can be viewed at the convenience of the political entity. While web seminars do not offer the personal connection benefits of in-person seminars, they improve accessibility while reducing time and effort on the part of electoral agencies. Elections Canada currently makes videos customized to the needs of most political entities available on its website.

7.7.2 Electronic registration and filing

There is significant demand from political entities to be able to register, update their registration, deregister, file reports and amend their reports electronically. Electoral agencies are also interested because electronic registration and filing reduces the need for manual processing and would likely improve compliance on the part of political entities. The technologies to achieve electronic filing are available; the main barriers to its introduction are time and money.

Various options for electronic filing are available, from distributing software to political entities for installation on their own computers, to offering centralized software accessed by political entities through the agency's website. The distributed option has the advantage that political entities may be able to extract data directly from their existing accounting systems into the software, thereby removing the need for double entry of data. The disadvantage, however, is that distributed software is relatively difficult for the electoral agency to support, especially given the range of operating systems and computer hardware options that exist across political entities.

Electronic Financial Return (EFR) System

Elections Canada currently distributes proprietary software called Electronic Financial Return (EFR), to political entities. The software allows entities to import contributions or transfers from a text file or to record their financial information directly in the system. When complete, data can be extracted from the system to create an electronic submission file for Elections Canada.

It is expected that, over the next ten years, agencies will work together to develop a fully integrated electronic registration and filing system. The system's functionality will allow entities to complete and submit forms electronically and will include logic so that forms that are incomplete or that fail to meet basic quality standards cannot be submitted. The software will also conduct more thorough audit checks on reports and will allow reviewers to focus on resolving exceptions. With the data already in electronic format, such a system will also facilitate public disclosure.

8.0 EVENTS

The outputs produced by the **Events** business area are the raison d'être of electoral agencies. Electoral agencies exist to deliver events, whether they are general elections, by-elections, referenda, enumerations, plebiscites, recalls or initiatives. The **Events** business area sits in the centre of the EMRM because it shares inputs and outputs with each of the other four business areas (Figure 41). The business processes within **Events** have been grouped into those that are common to all events (Event Management) and those that are specific to each type of event (Elections and Referenda, Enumerations, and Boundary Redistribution). The current version of this document reviews the 11 business processes that are part of Event Management and the six business processes that are part of Elections and Referenda. The business processes associated with Enumerations and ED Boundary Redistribution will be elaborated in the next version of this document. Recall and Initiative business processes are not included in this document because these events exist only in British Columbia.

Figure 41, page 117, shows how the business processes in the **Events** business area are related to the four other business areas and to external stakeholders through inputs and outputs.

8.1 Overall Objectives for Events Business Area

Objectives with respect to Event Management Processes

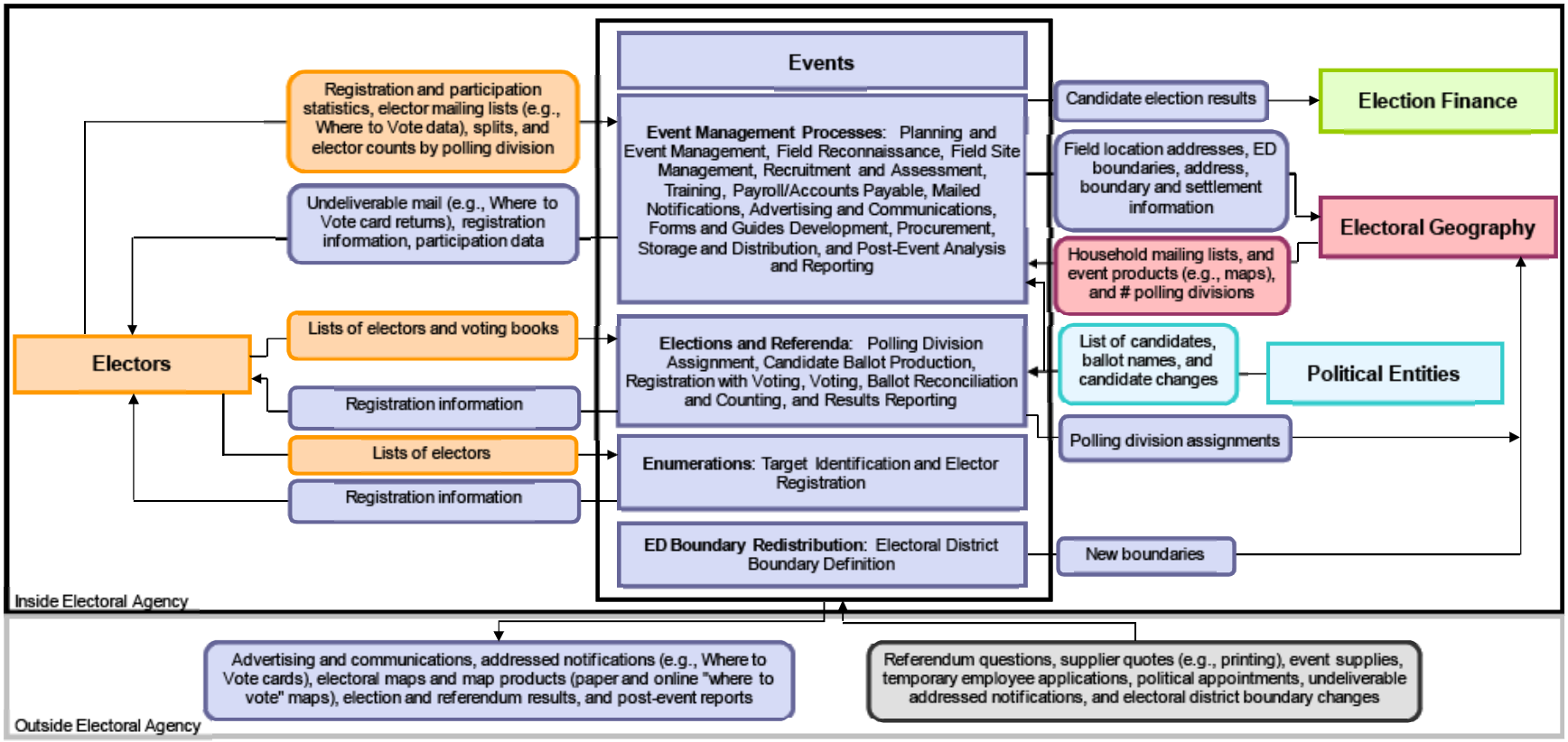
- To plan and manage the delivery of events in a manner that ensures high quality service to the electorate while making efficient use of public funds.
- To collect field information regarding new residential construction, schools, long-term care facilities, boundary issues, etc.
- To identify, lease, and manage appropriate event-related field facilities, including field offices and polling places.
- To recruit temporary workers, contractors, and election officials in sufficient quantities and with the skills needed to undertake event-related duties.
- To train temporary workers, contractors, and election officials so that they are prepared to undertake their duties with confidence and to deliver high quality service to the electorate.
- To track the hours-worked and/or deliverables completed by temporary workers, contractors and election officials and to ensure they are compensated appropriately.
- To mail timely and informative letters and notices to electors as required to inform them of event–related developments (e.g., Where to Vote cards, enumeration notices, etc.).
- To encourage event participation through targeted communications and advertising.
- To develop guides that are informative and readily understood by the target audience.
- To develop forms that are easy to use, collect required information, and can be processed efficiently by the electoral agency when completed.

- To procure, produce, store and distribute event materials on time, to the right locations, and in sufficient quantities to serve event requirements.
- To produce informative reports of events proceedings that satisfy legislated reporting requirements.
- To identify, document, and apply lessons learned from one event to the next in an effort to continuously improve the quality of service to the electorate.

Objectives with respect to Elections and Referenda

- To assign polling divisions to polling places in a manner that optimizes elector access while respecting polling place capacity constraints.
- To develop and produce candidate ballots that accurately reflect the approved list of candidates for an election or by-election.
- To accurately and efficiently register eligible electors who arrive to vote without a current elector registration.
- To effectively and efficiently deliver voting to the electorate.
- To accurately and efficiently reconcile ballots, consider ballots, and count votes to determine the outcome of an election or referendum.
- To accurately and efficiently compile and distribute election or referendum results to the media and the public.

Figure 41 Events Business Processes and Interactions



8.2 Events Business Area Background

8.2.1 Elections and Referenda Background

This section provides background regarding some of the key terms and concepts related to general elections, by-elections and referenda.

8.2.1.1 The writ

A writ is a formal written order issued by the Chief Electoral Officer that instructs a Returning Officer to hold an election or referendum in the electoral district for which they are responsible. Chief Electoral Officers issue writs when they are ordered to do so by either the Queen's representative for the jurisdiction or the leader of the government. The writ specifies some of the key dates in the election period, such as the close of nominations and Voting Day. It also specifies a date by which the writ is to be returned by the Returning Officer to the Chief Electoral Officer, with the name of the successful candidate noted on the back. A writ is issued for each electoral district that is holding an election. For instance, in a federal general election, 308 writs are issued.

8.2.1.2 The election calendar

Each jurisdiction has a legislated election calendar that sets the timing of key milestones during an election, by-election or referendum. The calendar covers the election period, which starts with the issuance of the writ and ends with its return. The date the writ is issued drives the timing of many event milestones. The period of time between the writ and Voting Day ranges from 21 days in Newfoundland and Labrador to 39 days for federal elections. In B.C., Voting Day is legislated to occur 28 days after the writ is issued. In Québec, this period ranges from 33 to 39 days, depending on the day of the week that the CEO receives the government's decree.

Key milestones that have legislated deadlines driven by the day the writ is issued are as follows:

- dates of absentee voting or special voting
- start and close of nominations or candidacy
- close of general registration
- start and close of advance voting
- date of Voting Day
- date(s) of counting
- date(s) of recounts conducted by Returning Officers, if any
- date official results due
- date of writ return

Election calendars are structured in different ways across jurisdictions; some consider Writ Day to be day 0 of the election period and count up to Return Day. In B.C., for instance, Writ Day is day 0 and Return Day is 51 days later on day 50 of the election period. Counting goes in the opposite direction in many jurisdictions (e.g., Canada, Ontario, and Manitoba). For instance, at the federal level, Writ Day is day 36 and the calendar counts down to 0 on Voting Day. Regardless of the direction that jurisdictions count, the important point is that when the writ is issued, the timing of many key event milestones is set automatically by legislation.

When election dates are not fixed by legislation and it appears that an event is imminent (e.g., by-election needs to be called, or vote-of-confidence in minority government setting), electoral agencies may explore different writ-day scenarios and the resulting election calendar. Electoral agencies may inform the government of writ dates to be avoided because they would result in key events falling on or close to holidays. Alternatively, some local legislation provides electoral agencies with flexibility regarding the date of Voting Day vis-à-vis the writ. For instance, in Manitoba, Voting Day must be at least 28, but not more than 35 days after the writ is issued.

8.2.1.3 Voting opportunities

Each jurisdiction offers a distinct array of voting opportunities. In response to declining rates of elector participation, many Canadian electoral agencies have received legislative amendments that permit expansion of the number, duration, and types of voting opportunities available to electors.

Voting Day

The most popular day to vote in all jurisdictions is Voting Day. The vast majority of electors vote on the main day designated for voting in the jurisdiction. In many jurisdictions, electors must vote at their assigned polling place on Voting Day. Electors are assigned to polling places based on the polling division of their physical address. Within each polling place there is a separate polling station established to serve electors from each assigned polling division. Election officials at polling stations work with a list that shows all registered electors in the polling division they are serving. Electors are allowed between 10 and 12 hours for voting on polling day. In B.C., electors are not constrained to vote at their assigned polling place on Voting Day; they are permitted to vote at any polling place in the province. However, if they do not attend to vote at their assigned polling place, they must vote using an absentee ballot.

Advance voting

Most jurisdictions also offer an advance voting day or period that takes place before the main day designated for voting. Some jurisdictions have received legislative amendments to lengthen the hours, number of days, and number of places designated for advance voting, as this is an increasingly popular option among electors. In B.C. for instance, the proportion of electors voting advance doubled from 6 percent of registered electors in the 1996 general election, to 12 percent in 2005, and then rose to over 17 percent in 2009.

Advance voting has traditionally been preferred by electors who require extra time to vote, such as older electors and electors with disabilities. Political parties and candidates are encouraging their supporters to vote during the advance period in the hopes of improving turnout and reducing pressure on limited party resources on Voting Day.

Manitoba is the only jurisdiction to offer an "advance voting week", with seven days of advance voting from Saturday to Saturday before Voting Day. Saskatchewan designates five days for advance voting and the advance voting period in B.C. is four days. Reflecting the trend toward expanding advance voting opportunities, Bill C-55 was introduced in the House of Commons in May of 2009 to amend the *Canada Elections Act* to expand the number of advance voting days in federal elections from 3 to 5 days. The fifth day of advance voting would be the Sunday prior

to Voting Day and would use the same polling places as Voting Day, effectively creating a second Voting Day.

Advance voting opportunities are established to serve electors residing anywhere within the electoral district where the opportunity is established. There are usually far fewer advance voting locations than there are polling places on Voting Day. B.C. is again an exception because electors can vote at any advance voting location in the province, however, if they attend to vote outside of their electoral district, they must vote with an absentee ballot.

Absentee voting or Special Balloting
In addition to these two main opportunities, many jurisdictions make an absentee ballot (also known as a special ballot) available at specified times during the election period to assist electors who cannot attend to vote on Voting Day or during advance voting (e.g., members of the Canadian Forces and other electors who are temporarily away from the jurisdiction, incarcerated electors, electors with disabilities or illnesses, electors in remote areas, etc.). Because these opportunities involve electors who are not voting in their electoral district during advance voting or at their assigned polling place on Voting Day, they are considered to be forms of absentee voting.

Absentee ballots may be distributed in the form of a vote-by-mail package, by a mobile team of election officials, or, in some jurisdictions, electors can access absentee ballots in the Returning Officer's office, or at polling places during advance voting or on Voting Day. Mobile polls are teams of election officials who administer absentee voting on or near Voting Day to electors who are in designated facilities and unable to attend a regular voting opportunity (e.g., acute care hospitals, correctional facilities, remote work camps, and long-term care facilities, etc.). Local legislation specifies when absentee voting may take place.

Proxy voting
Although Ontario is the only province with no absentee voting provisions in its legislation, the province offers proxy voting. Proxy voting allows electors to appoint a relative or another elector to vote on their behalf. This form of voting is intended to address the same barriers as mail-in or special ballots and is an option for electors in Ontario, Yukon and Nunavut.

8.2.1.4 Absentee ballots vs. "live" ballots

In order for a ballot to be considered valid and counted toward the election outcome, legislation requires that the elector be on the list of registered electors, or that they registered as such at the time of voting, and that they have only voted once. When electors vote in their electoral districts at advance voting or at their assigned polling place on Voting Day, election officials have the information they need at hand to confirm the elector's registration and that they have not already voted. At these opportunities the elector can place their marked ballot directly into the ballot box as a "live" ballot.

When electors do not vote in their electoral district at advance voting or at their assigned polling place, they are voting absentee. Absentee ballots are first placed into a plain, secrecy envelope and then into a certification envelope, bearing the elector's name, civic-style address and signature. The certification envelope is then placed in a ballot box. Certification envelopes must be verified prior to opening to confirm that:

- electors are registered to vote;
- electors voted in the election that they are eligible to vote in based on their address; and
- they did not vote more than once.

If these criteria are satisfied, the certification envelope is opened and separated from the secrecy envelope, thus separating the elector's identity from the vote. The secrecy envelopes are then opened and the ballots considered and votes counted.

Most jurisdictions set the deadline for applying for an absentee ballot sufficiently ahead of the start of advance voting that they can mark the list of electors used during advance voting and on Voting Day to show which electors voted absentee or applied to vote absentee. These electors are not permitted to vote again if they attend to vote during advance voting or on Voting Day. Absentee ballots can then be verified and counted at the same time as the "live" ballots are counted, following the close of voting on Voting Day. In B.C., absentee ballots are issued to electors right up to the close of voting on Voting Day. For this reason, the count of absentee ballots in B.C. (about 5 percent of all ballots) is delayed until 13 days after Voting Day. During the period between Voting Day and the final count of absentee ballots in B.C., certification envelopes are verified by Returning Officers and their staff to ensure that electors were registered and that they did not vote at more than one opportunity.

8.2.1.5 Accessibility of polling places

Because the vast majority of electors vote in a polling place, it is very important that electoral agencies and Returning Officers ensure that polling places are well located relative to the polling divisions assigned to them and that they are accessible to the electorate. Many jurisdictions require all of their advance voting locations, and as many of their regular polling places as possible, to be wheelchair accessible. In addition, signage is used to identify polling places, wheel chair parking and entrances, and to guide electors to the location of the polling place (e.g., gymnasium) within the larger building (e.g., school). With increased urbanization and declining rural populations, it is becoming increasingly difficult to offer a similar level of accessibility to all electors in a jurisdiction.

8.2.1.6 Ballot box splits, combines, and results merges

On Voting Day, voting and counting are administered by a team of two election officials, the Deputy Returning Officer and the Poll Clerk, to electors from an assigned polling division. Each polling station is responsible for a ballot box and is associated with a list of electors. Usually there is a one-to-one relationship between the list of electors in a polling division and a ballot box. However, there are the following exceptions.

As discussed in the **Electors** business area, when there are too many electors in a polling division, the list of electors is split in a manner that evens out the number of electors over two or more ballot boxes (i.e., split voting book). For results reporting purposes, the count of votes from each ballot box related to a single polling division is tabulated together and reported at the polling division level.

Particularly in remote areas, polling divisions can also have too few electors to assign to a single team of election officials. In these cases, two or more lists of electors from adjacent polling divisions may be combined and administered by a single team of election officials with one ballot box. In these cases, a single ballot box serves two or more polling divisions. The term "combines" is used to describe a situation where two or more adjacent polling divisions are assigned to a single ballot box.

When voting and counting are complete and the agency is in the reporting phase, the results from one ballot box may need to be merged with those from another in order to preserve the secrecy of the vote. A merge of the results may be necessary if the number of electors is small or if all electors tended to vote in a similar manner.

8.2.1.7 Spoiled ballots, declined ballots and rejected ballots

Spoiled ballots

Spoiled ballots include misprinted ballots and ballots returned by electors to election officials due to an error in marking the ballot. When electors make mistakes on their ballots, it is preferable for them to notify the Deputy Returning Officer responsible for the polling station and to be issued a new ballot. If electors try to correct the error without being issued a new ballot, there is a risk that their intention may not be clear and the ballot may ultimately be rejected by the Deputy Returning Officer during counting. Spoiled ballots are placed in an envelope and kept separate from other ballots. They are tallied during the ballot reconciliation process because all ballots issued to the polling station must be accounted for.

Declined ballots

Some jurisdictions permit electors to decline a ballot, which means that the elector does not vote for any of the candidates or choices, but they nonetheless register their choice to abstain. In Manitoba, for instance, electors can write the word "declined" across the face of the ballot before putting it in the ballot box. In other jurisdictions, the elector may make a verbal declaration that they decline. The verbal declarations are counted, but no evidence of them is put into the ballot box.

When two events are held simultaneously (e.g., a referendum and an election), the option to decline a ballot accommodates electors who want to participate in one event and not the other. In this situation, ballot reconciliation is markedly simplified when declined ballots are placed in the ballot box, ensuring a consistent 1:2 relationship between the number of electors who voted and the number of ballots in the box.

Rejected ballots

At the conclusion of voting, the Deputy Returning Officer considers each ballot to determine if the marking is valid. For a marked ballot to be considered valid and counted, the Deputy Returning Officer must be able to confidently interpret the elector's intent. In an ideal scenario, every ballot would be marked with either an x or a check for a single candidate. However, there are always some ballots that do not conform to this ideal scenario. Electoral agencies issue guidance to election officials regarding markings that commonly occur and how they should be interpreted. If, in the opinion of the Deputy Returning Officer, an elector's intent is unclear, the ballot is rejected and is not counted toward the vote. Another reason for rejecting a ballot is if

the elector has signed the ballot or made any mark that could result in the identification of the elector.

8.2.1.8 Control systems for multiple voting

With the trend toward making voting accessible by offering a range of voting opportunities, it can become challenging to ensure the integrity of the voting process. Each eligible elector is entitled to one vote for a candidate or referendum choice in the electoral district where they are registered. Lists of electors in the form of voting books are used as control documents during the administration of voting to confirm elector registration and guard against multiple voting. Electors are also required to show identification in some jurisdictions as a control mechanism.

When voting opportunities occur in sequence, there is an opportunity to mark the list of electors used in a subsequent voting opportunity to reflect the electors who have already voted. For instance, immediately following advance voting, the lists used on Voting Day are marked to show who voted during the advance period. In Ontario and Nunavut, the list of electors is marked between each day of advance voting to reflect voting that took place the previous day.

B.C. is the only jurisdiction that offers an extensive selection of simultaneous voting opportunities through to the close of voting on Voting Day. For example, on Voting Day in B.C., electors can vote at any polling place, at the office of any Returning Officer, by mail-in package, or at a mobile poll. In the absence of a fully integrated real-time source of elector registration and participation information, it is not possible to guard against multiple voting when opportunities are offered simultaneously through to the close of voting on Voting Day. Elections BC addresses this situation by making all but advance voting and assigned voting on Voting Day forms of absentee voting. Most of the verification processes to guard against multiple voting are conducted after Voting Day when the certification envelopes from absentee voting are compared against voting book documentation from advance voting and Voting Day to identify if an elector voted more than once. When evidence of multiple voting is identified, the corresponding certification envelope remains unopened.

8.2.1.9 Registration at the polls

Registration at the polls is an option in all jurisdictions in Canada, except Québec and Yukon. Electors who register at the polls are either required to show identification, and/or take an oath, or be vouched for by another elector. Identification documents generally need to prove both the elector's identity and residential address. Chief Electoral Officers issue directives regarding acceptable forms of identification.

8.2.1.10 Participation statistics

Some agencies include participation statistics in their post-event reporting. Turnout rates reflect the number of electors who voted, regardless of whether their ballot was considered to be a valid vote or was rejected. Thus the number of electors who vote (turnout) will be slightly higher than the number of valid votes in an election, by-election or referendum. For instance, in the 2005 general election in B.C., 1,774,269 electors voted, but 1,762,343 valid votes (99.3%) were counted toward the election results.

8.2.1.11 Election and referendum data elements

The standard data collected about event facilities and ballot boxes as defined in the Electoral Technology Accord's 2006 Common Data Model includes the following.

Site information

- electoral district, event, physical address, building type (school, community centre), common name, status and status change date (proposed, confirmed, withdrawn, discontinued), rental payment information, contact information, mailing address, accessibility, facilities details (e.g., toilet, communications, parking, etc.).

Room (polling place) information

- name of room (e.g., gym), accessibility, number tables and chairs, capacity in terms of maximum number of ballot boxes, and dimensions.

Ballot box information

- electoral district, event, polling division relationship, split type, combined with information, site identifier, ballot box type (regular, advance, mobile special, mobile unrestricted), date(s) of voting.

Ballot box results

- results type (initial, official, judicial recount, certified), status, number of electors who showed up, total votes cast, rejected ballots, declined ballots, valid votes, notes, vote count by candidate or referendum choice, notes.

In addition to the above, the **Events** business area captures participation data that can be linked with the register of electors to identify electors who participated in the event.

For more information about the specific data elements related to **Events**, please refer directly to the Common Data Model.

8.3 Events Business Area – Inputs, Business Processes, and Outputs

8.3.1 Inputs to **Events** business processes

This section describes the inputs to the 11 Event Management business processes, as well as the six business processes related to elections and referenda. The list below describes all inputs that come from other business areas (**Electors**, **Electoral Geography**, **Political Entities** and/or **Election Finance**) or from outside the organization. Inputs to **Events** processes that are produced by other **Events** processes are not listed below.

8.3.1.1 Lists of electors from **Electors**

Lists of electors are prepared in different sort-orders and in print and CD formats for use by **Events** to support enumerations, and registration and voting at the polls. Voting books are a special type of list used to document who has voted. In B.C. only, lists may also be used for the administration of recall and initiative events and by other government departments for non-electoral purposes permitted by legislation, such as jury selection lists.

8.3.1.2 Registration statistics from **Electors**

Registration statistics are used by the **Events** business area to target communications efforts to support enumeration, election and referendum events. Registration statistics are also used to inform event administration. For instance, information regarding the number of registered electors per polling division is used by **Events** business processes to determine whether a team of two elections officials should administer voting for more than one polling division.

8.3.1.3 Participation statistics from **Electors**

Participation statistics are incorporated into Post-Event Analysis and Reporting business processes in the **Events** business area.

8.3.1.4 Elector mailing lists from **Electors**

Elector mailing lists are produced by the **Electors** business area for use by **Events** to send notifications to defined subsets of registered electors. Typically, the largest addressed mailing is the distribution of Where to Vote cards to all registered electors just before the start of advance voting.

8.3.1.5 Household mailing lists from **Electoral Geography**

Using the address register as a base, the **Electoral Geography** business area produces household-based mailing lists to support enumeration efforts in the **Events** business area.

8.3.1.6 Polling division information from **Electoral Geography**

Polling division maps and counts of polling divisions are used to plan polling division assignments and for general event planning.

8.3.1.7 List of polling divisions requiring splits from **Electors**

Electors monitors registered elector counts in each polling division and identifies those that exceed the maximum number allowable by law by a sufficient margin that they need to be split. This information is provided to **Events** for planning purposes.

8.3.1.8 Paper and electronic maps, on-line maps and geography products from **Electoral Geography**

Various maps in different formats are created to meet the needs of the **Events** business area.

8.3.1.9 Boundary transition products from **Electoral Geography**

Polling division conversion tables are used by staff when assigning polling divisions to polling places.

8.3.1.10 Other geography products from **Electoral Geography**

The street index and the Location Index (in B.C.), are produced by **Electoral Geography** to assist election officials to identify an elector's electoral district and polling division assignment based on their civic-style address.

8.3.1.11 List of candidates and ballot names from **Political Entities**

The **Political Entities** business area produces the official list of candidates and ballot names for use in an election. These products are used by the **Events** business area in the administration of voting and production of candidate ballots.

8.3.1.12 Event financing information from **Election Finance**

Event financing information is an input to post-event reporting processes.

8.3.1.13 Amendments to legislation from government

Amendments to legislation are an input to the high-level Planning and Event Management processes because they impact the requirements for all of the processes, as well as policies and procedures.

8.3.1.14 Referendum questions from government

The wording of referendum questions is usually defined in a regulation by government.

8.3.1.15 Political appointments from the Governor General or Lieutenant Governor in Council

Some Chief Electoral Officers do not have the authority to appoint Returning Officers. Appointments are made by the Governor General or the Lieutenant Governor in Council, and may reflect recommendations from political parties.

8.3.1.16 Temporary employee and election official applications from the public

Applications for employment are an input from outside the agency to recruitment processes in the **Events** business area.

8.3.1.17 Potential field office and polling place locations from external stakeholders

External stakeholders may inform electoral agencies about potential field facilities.

8.3.1.18 Invoices/expense claims from contractors

Contractors hired to support the event submit invoices and expense claims to Payroll/Accounts Payable processes.

8.3.1.19 Questions and complaints from external stakeholders

Throughout an event, the electoral agency receives and addresses questions and complaints from external stakeholders.

8.3.1.20 Event supplies from external suppliers

During any type of event, electoral agencies produce some supplies in-house and rely on external vendors for others. Supplies procured from vendors range from computers to standard stationery items, such as pens and pencils.

8.3.1.21 Quotes and proposals from external suppliers

Suppliers of goods and services related to events are selected through competitive bidding processes.

8.3.2 Business processes in **Events**

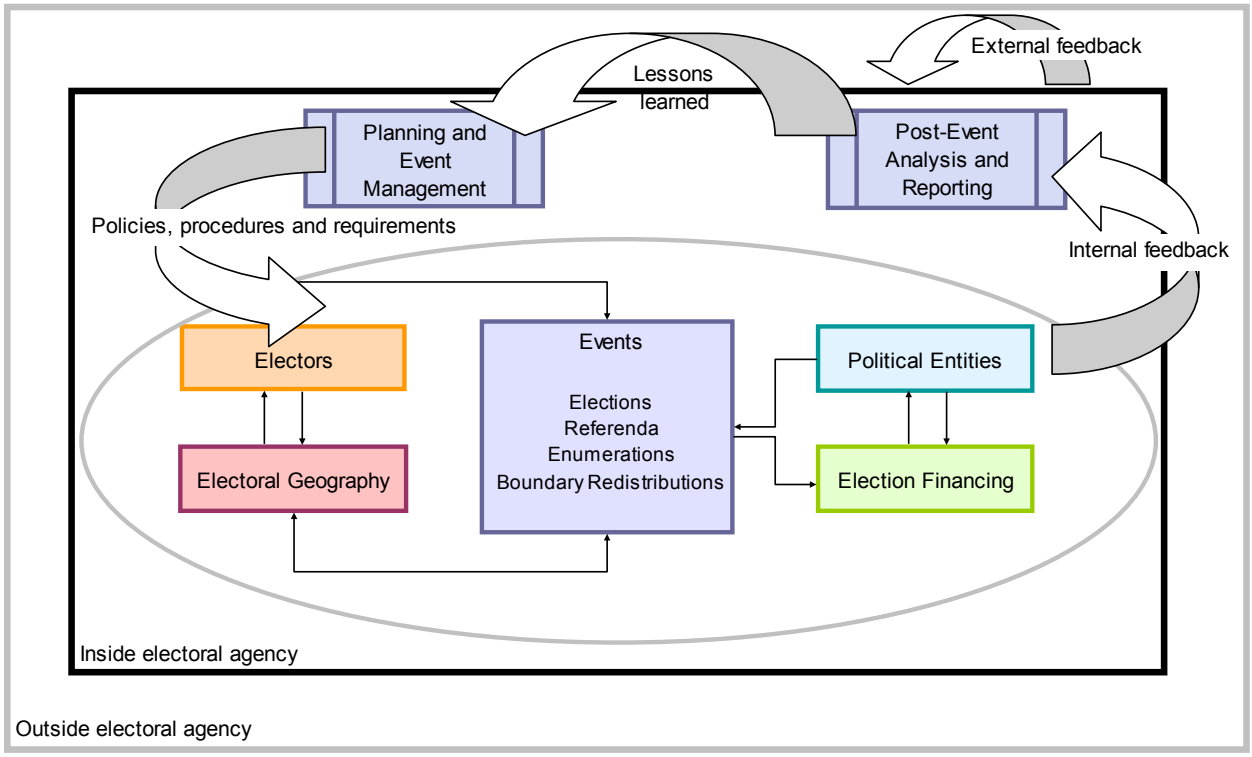
8.3.2.1 Event Management

Event Management is a grouping of the 11 business processes that are likely to be a part of every electoral event. These are the processes that identify lessons learned and plan the event, establish field facilities, hire, train and pay employees, contractors and suppliers, acquire, produce, store and distribute supplies and equipment, and ensure that the electorate and other stakeholders are informed. The business processes included in the Event Management group are listed below.

1. Planning and Event Management
2. Field Reconnaissance
3. Field Site Management
4. Recruitment and Assessment
5. Training
6. Payroll/Accounts Payable
7. Mailed Notifications
8. Advertising and Communications
9. Forms and Guides Development
10. Procurement, Storage, and Distribution
11. Post-Event Analysis and Reporting

Electoral agencies aim to improve continually the quality of service they provide to electors, political entities and other stakeholders. Figure 42 draws attention to two particular business processes in the Event Management grouping that are central to ensuring that feedback is incorporated into subsequent cycles of event delivery. During all phases of the event, feedback regarding the agency's performance may be gathered from internal sources (permanent and temporary staff) and from external stakeholders (contractors, electors, political entities, suppliers of goods and services, and other stakeholders). That feedback is synthesized and translated by Post-Event Analysis and Reporting processes into lessons learned, which become an input to Planning and Event Management processes. Lessons learned are translated into policies, procedures and requirements for business processes in the next event delivery cycle. It is this interaction between Post-Event Analysis and Reporting and Planning and Event Management that ensures that lessons learned from past events are addressed in future events and continuous improvement is achieved.

Figure 42 The Feedback Loop

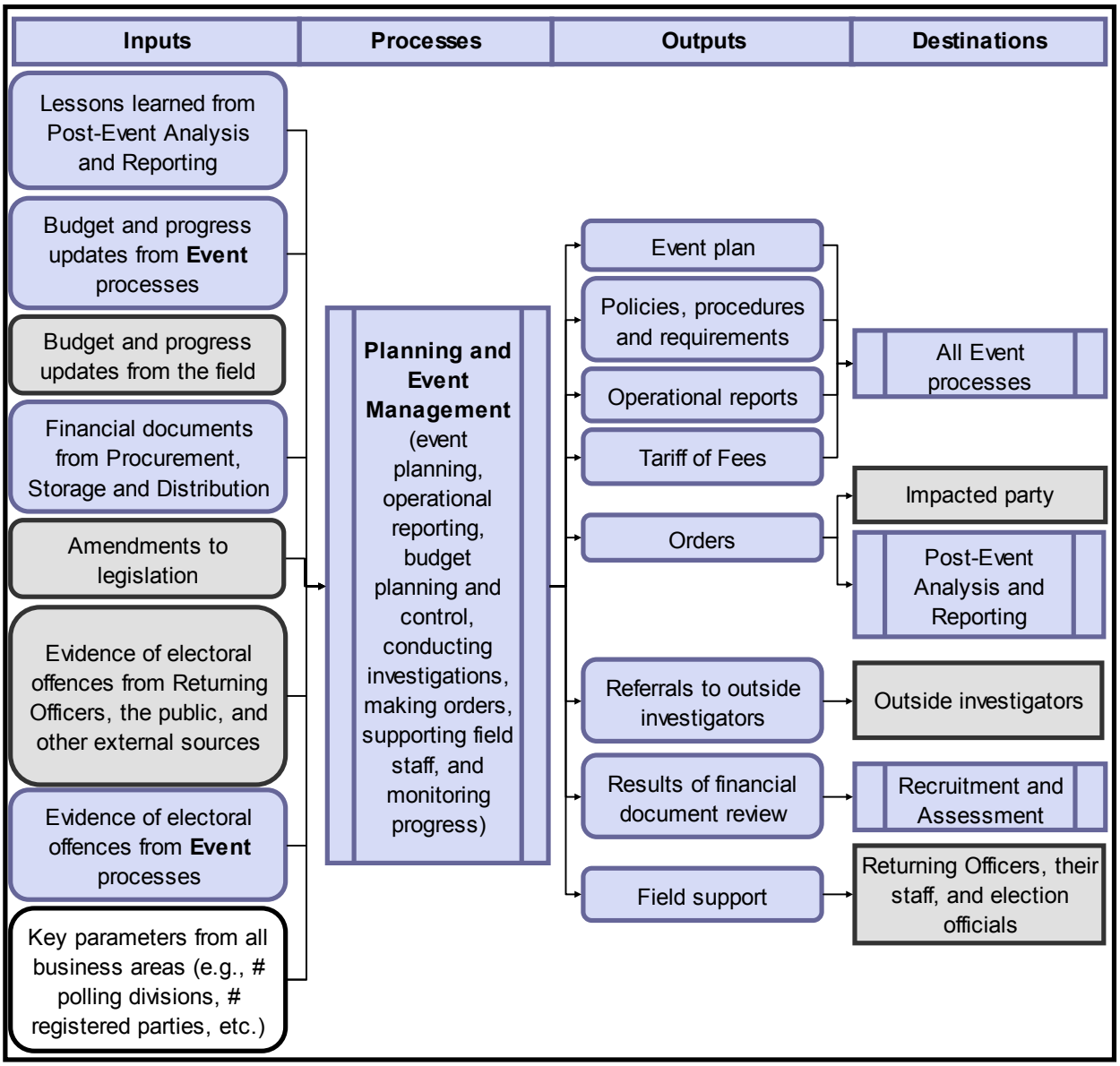


The following is a description of each of the eleven business process groupings in Event Management.

8.3.2.1.1 Planning and Event Management

Planning and Event Management is a group of high-level processes that oversee and influence the entire event, such as event planning, the development of policies, procedures and requirements, and event budgeting. These processes also include investigations and CEO orders, as well as head-office support for, and progress monitoring of, Returning Officers and their staff.

Figure 43 Planning and Event Management - Inputs, Outputs and Destinations



Note: the key parameters input box is shown in white because key parameters are drawn from all business areas.

Planning

Many electoral agencies are applying the principles of project management to the planning and delivery of electoral events. Events are a type of project in the sense that they are temporary endeavours with a definite beginning and end and each one is different from the last. Many projects are planned using a Work Breakdown Structure (WBS) as the basis for identifying all of the deliverables that need to be produced: in other words, the full scope of the project. A WBS is a detailed deliverable-oriented breakdown, which is organized in a hierarchical fashion, starting with an overall organizing schema. Using the structure of the WBS as a foundation, an activity list can be developed, that identifies the activities that need to be performed to produce the deliverables identified in the WBS.

The EMRM may be used as a foundation for the creation of an event WBS and activity list. The five business areas defined by the EMRM could serve as the first level of a WBS (the organizing schema). The next level would be the business process groups that produce outputs associated with the event. Level 3 would be the event-related outputs for each business process. At level 4, the specific activities required to produce the outputs or deliverables would be identified, scheduled, assigned to resources, hours estimated, etc. Table 3 shows a simple example of the structure that a WBS and associated activity list based on the EMRM might take.

Some agencies have developed detailed event plans and are using project management software to manage the implementation of events. When the activities required to produce deliverables are defined, resources can be assigned and the time required to complete the work can be accurately estimated. Schedules and resource loading information can then be derived from the data that populates the WBS and its associated activity list. In order to be successful in detailed event planning, it is important to obtain input from everyone in the organization so that descriptions of the work to be undertaken and estimates of the time required are as accurate as possible. This may be accomplished through the establishment of event planning teams with members from all functional units.

Table 3 Example of a WBS and Activity List Based on the EMRM

Level 1: Business Areas **Level 2: Business Processes** **Level 3: Outputs** **Level 4: Activities**
1.0 Events
1.1 Planning and Event Management
1.1.1 Event plan
1. Review lessons learned from last event
2. Review changes to policies/procedures/legislation
3. Develop event plan
etc.
1.1.2 Tariff of Fees
1. Develop Tariff of Fees for the event
1.13 Operational Reports
etc.
1.2 Field Reconnaissance
1.2.1 List of potential polling places
1. Contact past polling places and confirm availability
2. Identify potential new polling places and contact to confirm availability
1.2.2 List of potential field offices
1. Identify possible locations for field offices
1.2.3 List of potential training facilities
etc.
1.3 Field Site Management
1.3.1 Signed leases
1. Obtain signed leases for confirmed facilities
etc.
2.0 Political Entities
2.1 Registration and Deregistration of Political Parties
2.1.1 Registered political parties
1. Process requests to register
2. Approve party names
2.2 Registration and Deregistration of ED Associations
etc.
3.0 Election Finance
etc.
4.0 Electors
etc.
5.0 Electoral Geography
etc.

During the planning process, electoral agencies give consideration to lessons learned from past events, amendments to legislation that suggest a need for the development of new, or the

modification of existing, policies and procedures, and key parameters that help to define the scope of the event (e.g., number of polling divisions). Changes to legislation can have profound effects on event planning and delivery; for instance, if legislation was amended to remove the requirement for the assignment of two election officials to a ballot box, then the work flow in a polling place would likely be modified and this, in turn, would have implications for staffing, training, field facilities, voting materials, etc. The planning process identifies what is required by the event, how it will be delivered, and how much will be needed, and this is expressed as requirements for other business processes.

Budgeting and the Tariff of Fees

Planning and Event Management processes develop and manage the event budget and the Tariff of Fees, which establishes maximum salary and fee-for-service rates. The budget may be planned as an extension of the WBS. As deliverables and the work required to produce them are defined, the associated costs can also be estimated. Many agencies are required to submit a cost-estimate for the event prior to delivery and to manage to that estimate. Budget monitoring processes during the event are important to ensure that assumptions made in budgeting are holding true and that actual costs are in line with budget estimates. Certain areas can have a particularly large impact on the budget if assumptions are inaccurate: election official salaries, mass mailings, field facility rentals, and advertising costs. These areas provide regular updates to Planning and Event Management processes during the event for budget monitoring purposes. Returning Officer financial documents are often reviewed and/or audited at the end of the event and the findings may become an input to Returning Officer evaluations.

Operational reporting

In order to conduct the analysis necessary for planning, to deliver the plan, and to effectively monitor progress during event delivery, Planning and Event Management processes must have access to reporting systems that can pull data from all business areas to populate operational status reports. Many jurisdictions define a series of standard operational reports that are required in every event. It is also important to have the ability to produce reports that can be customized by the type of information they show (e.g., financial, status, exceptions, etc.), the geography or time period to which they pertain, and the permission attached to their distribution to different roles. For instance, custom reports might be used in the case of an enumeration to identify targets for a door-to-door campaign (e.g., particular geographic areas, or building types). Finally, there may be a requirement for a set of executive-level reports that present daily statistics and key performance indicators in a dashboard format.

Investigations

Planning and Event Management processes receive complaints and allegations regarding possible violations of electoral law during the event. Evidence is gathered and complaints are investigated. For instance, a Returning Officer may have evidence of an elector voting more than once. The evidence would be copied and sent to Planning and Event Management processes for study and potential follow-up. When the electoral agency's investigation uncovers evidence of an offence having been committed, the electoral agency may refer a case to a contracted investigator or the police for further action. In Nunavut, all complaints are made to the police and the police conduct all investigations.

Orders
During the delivery of the event, there are instances where election officials or agency staff do not follow procedures and/or provide misleading information that has the potential to result in a negative consequence for an elector, candidate, political party, or other stakeholder. CEOs have the authority to make orders in these situations if they believe that doing so will not adversely impact the overall integrity of the electoral process. As an example, in B.C., the law requires electors who vote-by-mail to use a write-in ballot. If an election official erred by including an candidate ballot in a vote-by-mail package instead of a write-in ballot, the CEO might issue an order to ensure that the candidate ballot was not rejected on the basis that the incorrect ballot form was used. In extreme circumstances, orders may be used to grant extensions to financial filing deadlines or nomination deadlines. Orders can only be made when the CEO is confident that the exception that is made to the law does not harm the integrity of the election.

Field office support and progress monitoring
The head office plays a key role in supporting staff who are delivering the event in the field. Agencies organize themselves in different ways to ensure that accurate and timely responses are provided to questions from field staff. Some use a case-worker model, where staff are hired and/or trained to support a small group of Returning Officers. This model has the advantage that staff are very familiar with the breadth of issues experienced by their particular group of Returning Officers. Another approach is to provide a list of subject matter experts and to instruct Returning Officers to call an expert when they have a question. Both approaches have advantages and drawbacks. What is important from the perspective of a successful event is that a system is devised that provides accurate and timely information to Returning Officers who are contacting the agency for assistance after consulting manuals and other documentation provided by headquarters.

Some agencies are making effective use of intranet sites that support Returning Officers by proactively providing answers to questions that are being asked frequently. These sites may also include a day-by-day task list that can be updated by the Returning Officer so that their progress is shared with the head office. This allows Planning and Event Management processes to efficiently identify electoral districts that have not achieved critical milestones. The intranet sites may also be used as a distribution channel for operational data reports that assist field staff in conducting their work.

Destinations
Many of the outputs of Planning and Event Management processes become inputs to all **Event** processes, reflecting their high-level role in defining the scope and approach to the event. The event plan, policies, procedures, and requirements, standard and customized operational reports, and the Tariff of Fees are inputs to every **Event** process. Orders are issued to affected parties and are summarized in post-event reports prepared by Post-Event Analysis and Reporting processes. Field support is received by all staff in the field, however, the primary contact is through Returning Officers and their senior staff. Agencies that review Returning Officer financial documents may provide feedback to Recruitment and Assessment processes to be incorporated into performance evaluations.

8.3.2.1.2 Field Reconnaissance

Most events are delivered in the field and local information is extremely valuable to many areas of event administration. During the pre-event phase of an election, by-election or referendum, Returning Officers may be asked to complete a field assignment to prepare for the event in their jurisdiction. The assignment is intended to identify potential event facilities, local suppliers of specific goods and services, the locations of mobile polls (hospitals, correctional facilities, long-term care facilities, etc.), as well as new residential construction that might result in the need for split voting books.

Prior to undertaking this assignment, Returning Officers receive information from Planning and Event Management processes regarding the number of polling facilities and field offices required for the event in their electoral district, as well as specifications regarding what constitutes suitable space (e.g., amount of space, connectivity requirements, etc.). Returning Officers also receive information about facilities used in past events, and the Tariff of Fees, which provides guidance around lease rates.[24]

Facilities Identification

Returning Officers and/or property managers are responsible for generating a list of potential facilities that could be used for:

- polling places for Voting Day;
- advance voting locations;
- field offices for Returning Officers;
- training facilities; and/or
- other purposes, as required.

Polling places used on Voting Day are often located in schools, but may also be in libraries, community centres, firehouses, park buildings, other government buildings, meeting rooms of places of worship, meeting halls, or any place deemed suitable by the Returning Officer. In some jurisdictions, legislation requires that public school facilities be available for use on Voting Day at the request of the Returning Officer. Many jurisdictions aim to make all of their advance voting places wheel chair accessible and almost all of their polling places for Voting Day wheelchair accessible.

When identifying potential polling places, Returning Officers need to take the following into consideration:

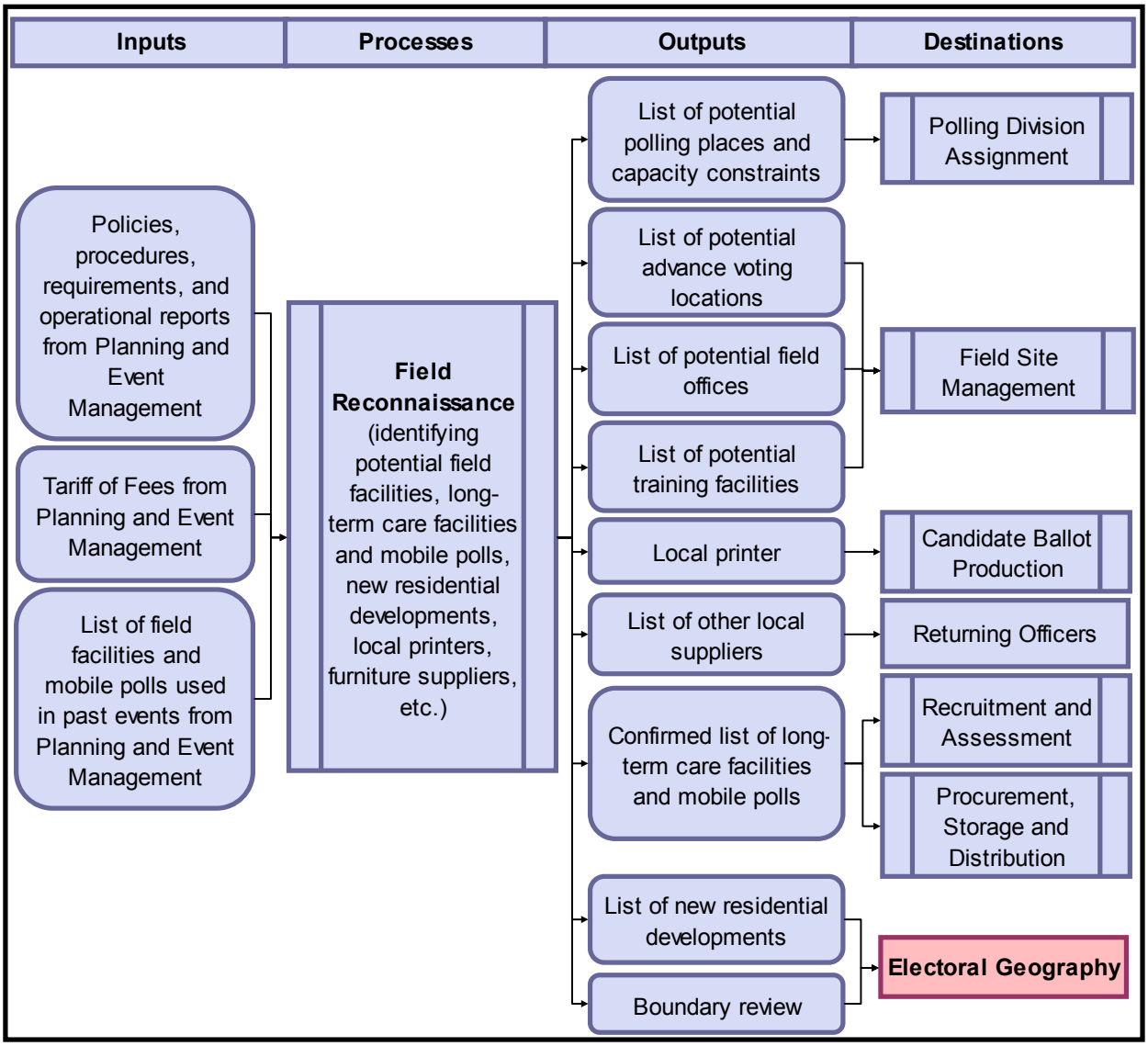
- past practice;
- capacity of polling places;
- traffic patterns;
- public transit routes;
- geographic barriers;

[24] Note that some jurisdictions do not set out lease rates in the Tariff of Fees (e.g., Nunavut).

- cultural groups/demographics;
- wheelchair accessibility; and
- distance and weather conditions.

Whenever possible, Returning Officers try to keep polling places the same from one election to another because electors appreciate consistency in this area. It is important for Returning Officers to identify the capacity constraints of each potential polling place in terms of the number of stations that can be accommodated. This information is used when polling divisions are assigned to polling places.

Figure 44 Field Reconnaissance - Inputs, Outputs and Destinations



Identifying and selecting polling places can be a politically charged process. Electors may have associations or beliefs that conflict with the usual use(s) of facilities identified as potential

polling places. For instance, some electors may object to voting in a place of worship or in a Legion hall. Electoral administrators respond by stressing that use of a particular facility does not imply an endorsement of the usual use(s) of that facility. Parents often express concern about the use of schools for voting. Electoral agencies sometimes respond by retaining security personnel and training them as election officials to work in those schools. The reality is that electoral administrators often have few options available when selecting polling places.

When identifying potential field offices most agencies rely on Returning Officers to conduct a search for suitable space, while others retain professional property management companies to do this work. Below is a list of some of the qualities that are frequently sought after for field offices.

- location is within the boundaries of the electoral district;
- location is convenient and accessible to electors;
- location is not too close to a candidate's office;
- parking is available for electors
- office is located on the ground floor or accessible by an elevator
- office is wheelchair accessible or can be made so with a minor improvement;
- office is a suitable size in terms of floor space;
- office includes a private office for the Returning Officer;
- office includes a space for the media on Voting Day;
- office includes space for training;
- office has convenient access to bathroom facilities;
- office includes a pick-up and delivery access point for supplies;
- office includes secure storage for ballot boxes; and
- has satisfactory cabling for installing telephones and data lines, as per requirements.

In rural areas, it can be particularly difficult to find facilities that satisfy the IT infrastructure requirements for connectivity. In urban areas, it can be difficult to find space that satisfies the constraints of the Tariff of Fees with respect to lease rates. A list of potential offices that meet specifications becomes an input to Field Site Management for selection and lease negotiation.

Local Goods and Services Providers

Electoral agencies take different approaches to ensure that Returning Officers have the supplies and equipment they need to run their field offices. Some provide all required supplies and equipment through headquarters (e.g., Nunavut), while most take a mixed-model approach, requiring Returning Officers to source some equipment and supplies locally. When there are economies of scale to be achieved through central supply, or a business reason for consistent equipment in the field (e.g., computer support), the equipment tends to be sourced centrally. Supplies and services where timeliness is critical and/or there is little to be gained through economies of scale, tend to be sourced locally. Examples of supplies and equipment that are often sourced by Returning Officers through local suppliers include:

- ballot printing;
- photo-copy services;
- furniture; and
- stationery products.

Equipment that tends to be purchased or leased and distributed through the head office includes: photocopiers, printers, computers, fax machines, telephones and cell phones.

Returning Officers are responsible for identifying potential sources for supplies and equipment that they are required to source locally. For agencies that produce ballots locally, the choice of ballot printer becomes an input to Ballot Production.

Other field information
To support Planning and Event Management, Returning Officers review and confirm the list of long-term care facilities, hospitals, correctional facilities and other locations where mobile teams were sent during the last election and add any new facilities to the list. This information is used to identify mobile team staffing requirements and to ensure adequate supplies are produced and shipped. Returning Officers also identify areas of new residential development that might result in a need for an alpha-split voting book. Notification of new developments is sent to the **Electoral Geography** business area. Returning Officers may also be involved in reviewing new polling division and electoral district boundaries to ensure maps reflect the current street network and to identify any issues with the boundaries.

Destinations
Lists of potential polling facilities and field offices are sent to Field Site Management for negotiation of leases and selection of the facilities to be used in the event. The only exception is for polling places that are identified as potential locations for use on Voting Day; these are sent first to Polling Division Assignment. Through the polling division assignment process, the actual list of facilities that will be used as polling places is identified. This information is then sent to Field Site Management for lease negotiation. Details about the ballot printer are an input to the ballot production process.

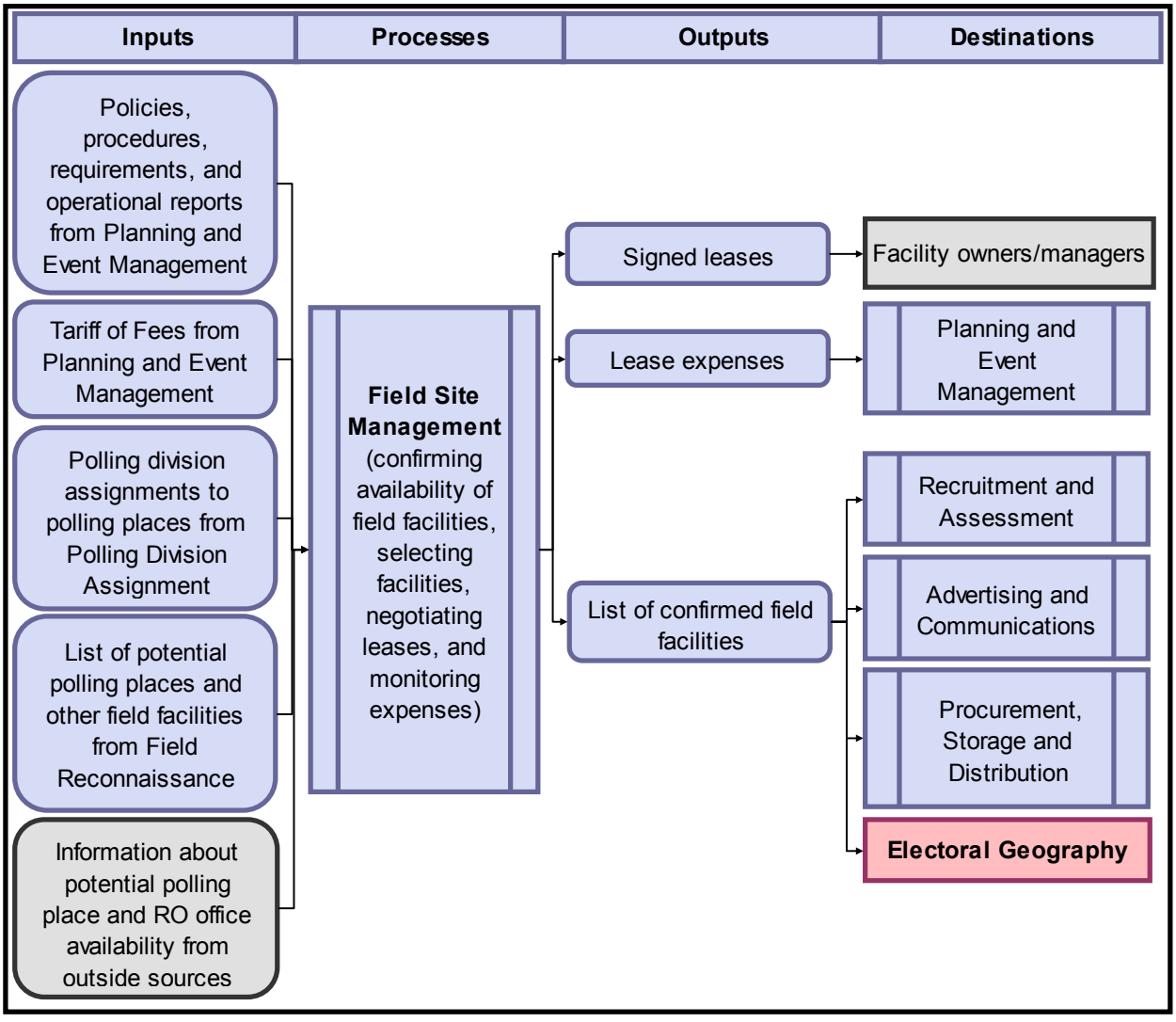
The list of facilities requiring a mobile team becomes an input to Recruitment and Assessment and Procurement, Storage, and Distribution. The **Electoral Geography** business area receives information about new developments that may be a source of new electors and addresses. As well, the **Electoral Geography** business area receives Returning Officer feedback about polling division and electoral district boundaries.

8.3.2.1.3 Field Site Management

Elections, referenda and by-elections are usually delivered in the field through a network of facilities that the electoral agency leases temporarily. Some field offices may also be required to support a door-to-door enumeration event. Field Site Management processes select and lease field facilities. These processes may also be used to expand the operations of the electoral agency's headquarters as the number of temporary employees and contractors grows during the pre-event phase of the business cycle.

As illustrated in Figure 45, Field Site Management processes receive a number of inputs from other **Events** processes and external stakeholders. Some important parameters are set by Planning and Management processes in terms of the number of advance voting and field offices required per electoral district, and acceptable lease rates (Tariff of Fees). Through Field Reconnaissance, various lists of potential field facilities are created: advance voting locations, field offices for Returning Officers, training facilities, and other temporary facilities, as required. The polling places required for Voting Day are identified by the final polling division assignments, which are an output of Polling Division Assignment processes.

Figure 45 Field Site Management - Inputs, Outputs and Destinations



Returning Officers take the lead in confirming polling place availability and negotiating leases. It can be particularly challenging to confirm polling place availability for jurisdictions that do not have fixed-date elections or in advance of by-elections because of uncertainty about the start and end dates of the event. Using the Tariff of Fees, Returning Officers determine the lease rate as

either a negotiated flat fee or a variable fee based on the number of stations at the venue. Lease rates vary depending on whether furniture and janitorial services are included in the negotiated fee, or must be contracted separately. In some cases there may be no charge for the use of a facility as a polling place. Higher flat-fees that may deviate from the Tariff of Fees are more commonly negotiated in large cities where rental space is relatively expensive.

Returning Officers review the list of the potential field offices from Field Reconnaissance processes, and select their preferred site for lease negotiation. Leases may be negotiated by property managers, Returning Officers or head-office staff. The lease is usually two months in duration and should include a proviso allowing an extension of the rental period in the event of a judicial recount. Uncertainty regarding the date of the election can result in establishing field offices well in advance of an event to be sure facilities are available when the writ is issued. Identifying suitable office space at an affordable rate is challenging when the event occurs during a period of low vacancy rates.

Destinations
Planning and Event Management processes are kept apprised of lease expenses for budget monitoring purposes. A list of confirmed field facilities is shared with Recruitment and Assessment processes so that election officials can be assigned to work at confirmed polling places. The list is also an input to Advertising and Communications so that polling place locations can be listed in advertisements. **Electoral Geography** incorporates confirmed polling place addresses into the address register and on-line maps. Finally, the list of confirmed field facilities is an input to Procurement, Storage, and Distribution, so that supplies can be distributed to these locations.

8.3.2.1.4 Recruitment and Assessment

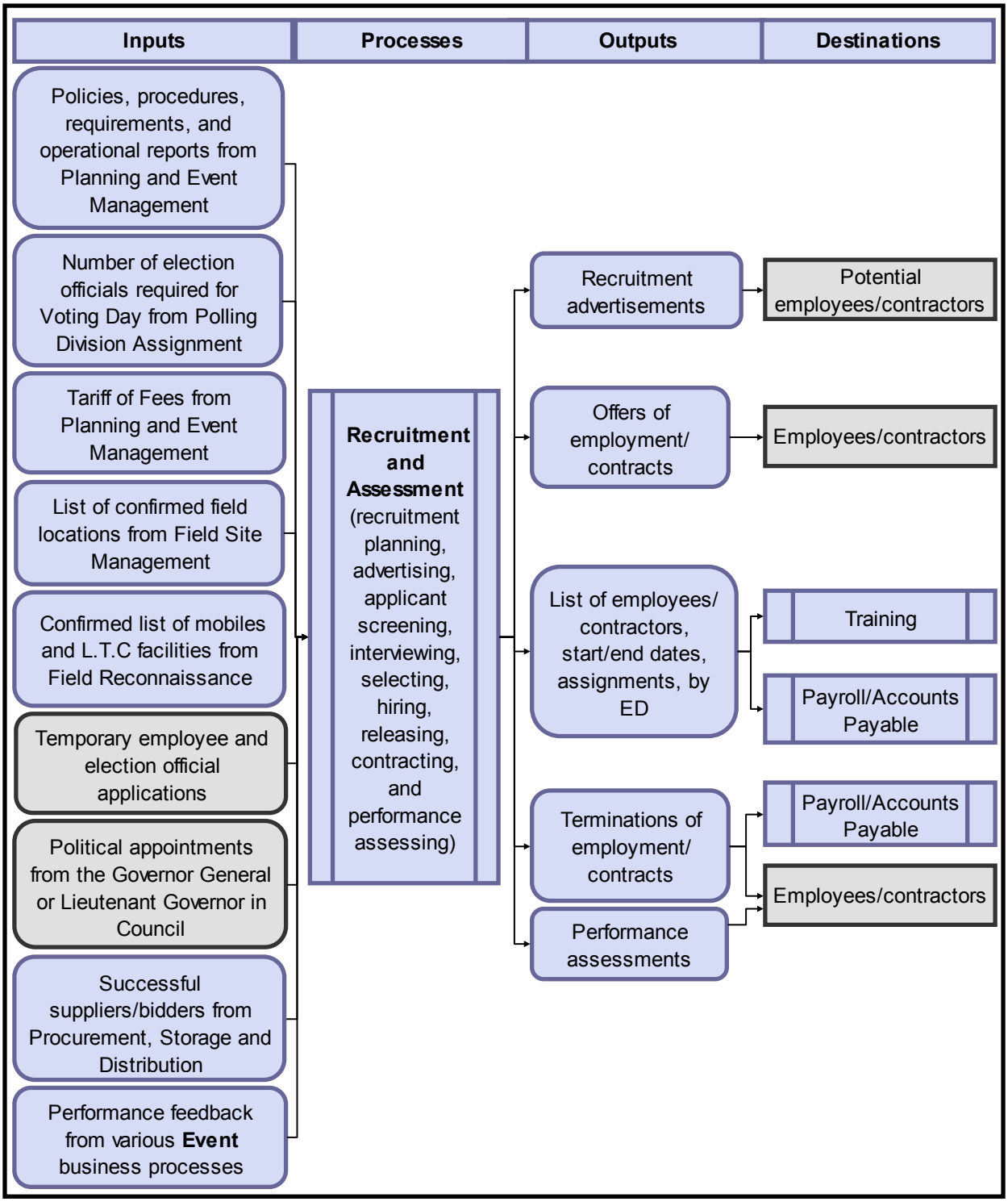
Full-scale events, whether they are general elections, referenda or enumerations, require an enormous recruitment effort. Electoral agencies may increase their staffing levels by a factor of over 700 times during a general election. People are recruited to fill many different tasks, from assisting permanent staff at headquarters, to working in Returning Officer offices and polling places. While most of the recruitment takes place on a competitive basis, some Chief Electoral Officers do not have the authority to appoint Returning Officers and must, instead, accept appointments made by the Governor General or the Lieutenant Governor in Council.

Recruitment and Assessment processes advertise available positions and recruit, screen, and select successful applicants. These processes may also collect feedback on the performance of selected workers, such as Returning Officers and Assistant Returning Officers, and prepare performance evaluations. In addition to establishing employer relationships, Recruitment and Assessment processes also develop and manage contracts for suppliers of goods and services related to the event.

There are a wide variety of inputs to Recruitment and Assessment processes from other event processes and from outside the agency. The agency's requirements in terms of numbers and types of workers are provided by Planning and Event Management processes. In addition, the final polling division assignments, which take account of splits and combines, are used by Recruitment and Assessment processes to identify the number of election official teams required

to administer voting and counting on Voting Day. The confirmed list of field facilities and mobile polls allows election officials to be associated to polling places and mobile team locations. Procurement, Storage, and Distribution processes may launch competitive bidding

Figure 46 Recruitment and Assessment - Inputs, Outputs and Destinations



processes, which link into Recruitment and Assessment processes, where the contract is developed and managed. Performance feedback on certain employees, such as Returning Officers and Assistant Returning Officers may be collected so that performance assessments can be created for these employees.

In jurisdictions where CEOs recruit and appoint Returning Officers, efforts are made to ensure a competitive process and the selection of the most qualified applicant vis-à-vis the job requirements. As part of their screening processes, some agencies ask experienced Returning Officers to complete an assessment and/or interview prior to re-appointment. Some agencies have developed profiles of the skill sets that define a high-performing Returning Officer and measure each Returning Officer-applicant's profile against the idealized profile to screen applicants for interviews. In some jurisdictions, Returning Officers retain their appointment throughout the inter-event phase, while others rescind the appointments and then recruit and appoint Returning Officers as an election approaches.

Returning Officers take the lead on hiring staff and election officials to work in their own electoral districts. They may do their own advertising, or this function may be coordinated centrally on their behalf. Most jurisdictions instruct Returning Officers to hire 10 percent more election officials than required to accommodate situations where an election official does not report for work, or leaves early. In rural areas, these *spare* election officials should be geographically dispersed throughout the electoral district. Depending on the state of the labour market, it can be extremely challenging to find sufficient numbers of qualified individuals to act as election officials.

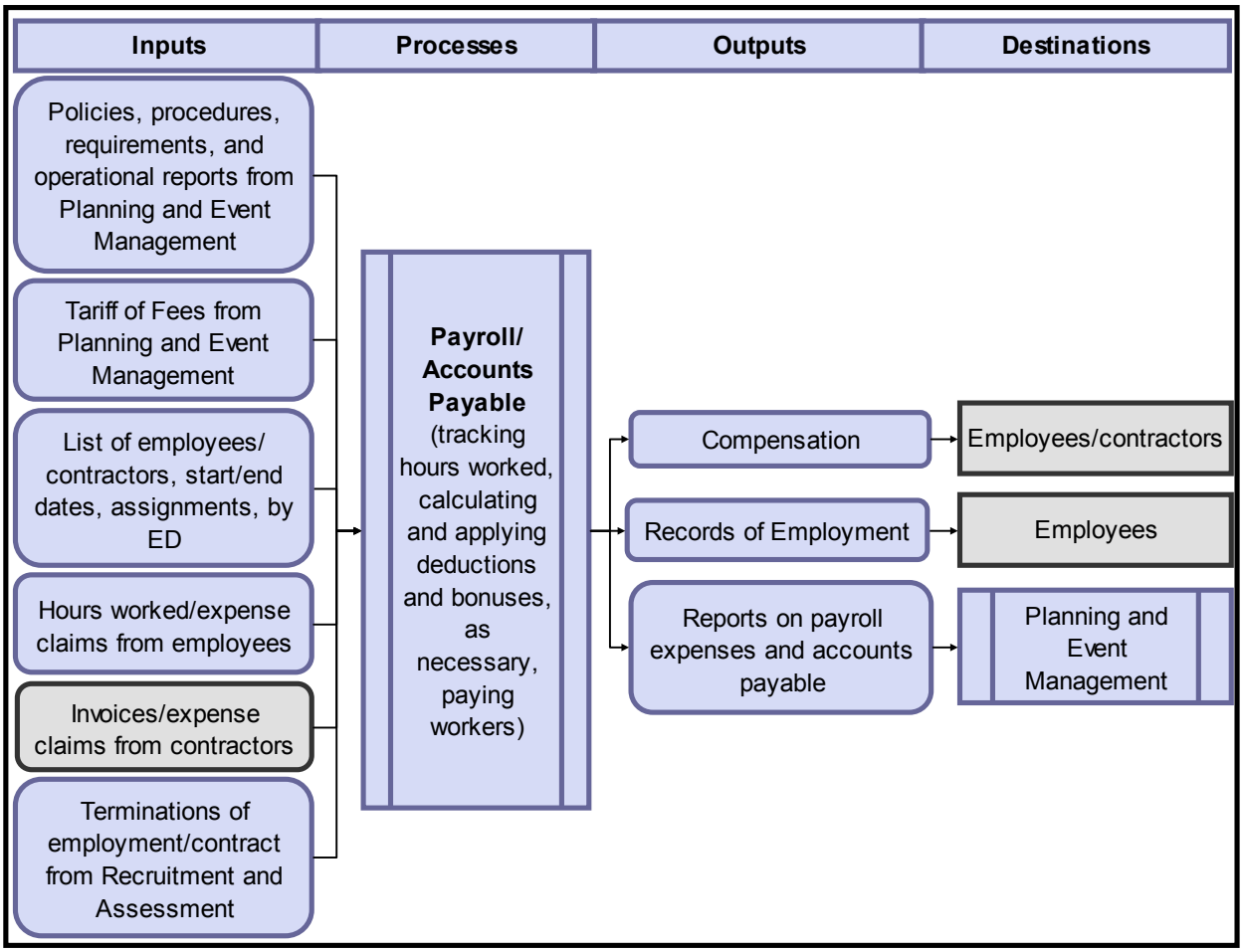
Destinations

Offers of employment and contracts are produced for new employees and contractors. A list of temporary workers, election officials, and contractors by electoral district and assignment is provided to Payroll/Accounts Payable and Training processes. Employees and contractors, as well as Payroll/Accounts Payable processes, are notified of any terminations of employment or contract. Performance assessments are provided directly to affected employees and contractors.

8.3.2.1.5 Payroll/Accounts Payable

Human resource costs are a substantial proportion of the overall event budget. As an example, if 30,000 election officials are hired to work on Voting Day for $200 each for the day, payroll would be $6 million for this day. Because of the volume of temporary workers and election officials, electoral agencies may not use their standard payment process for event workers. The rate at which temporary workers and election officials are compensated is defined by the Tariff of Fees, which is set by Planning and Event Management processes. Payment processes begin with notification of a confirmed contract or offer of employment. Upon receiving such notification, systems are put in place to pay the employee or contractor upon receipt of an expense claim, hours report, invoice, job completion confirmation, or other trigger used to signify that a payment is due. Employee or contract terminations are also communicated to Payroll/Accounts Payable processes so that records of employment can be issued and employees can be paid any money owing.

Figure 47 Payroll/Accounts Payable - Inputs, Outputs, and Destinations



Electoral agencies may use the same payroll system that they use for their permanent employees or they may use a different system for event payroll. Event payroll is characterized by an extremely large volume of transactions that must be processed in a very short amount of time. For instance, in B.C., there may be as many as 30,000 election official payments to process for Voting Day alone.

Destinations

Compensation is paid directly to employees and contractors. Records of employment are issued to former employees upon conclusion of their assignment. Planning and Event Management is provided with regular reports regarding spending on payroll and accounts payable for budget monitoring purposes.

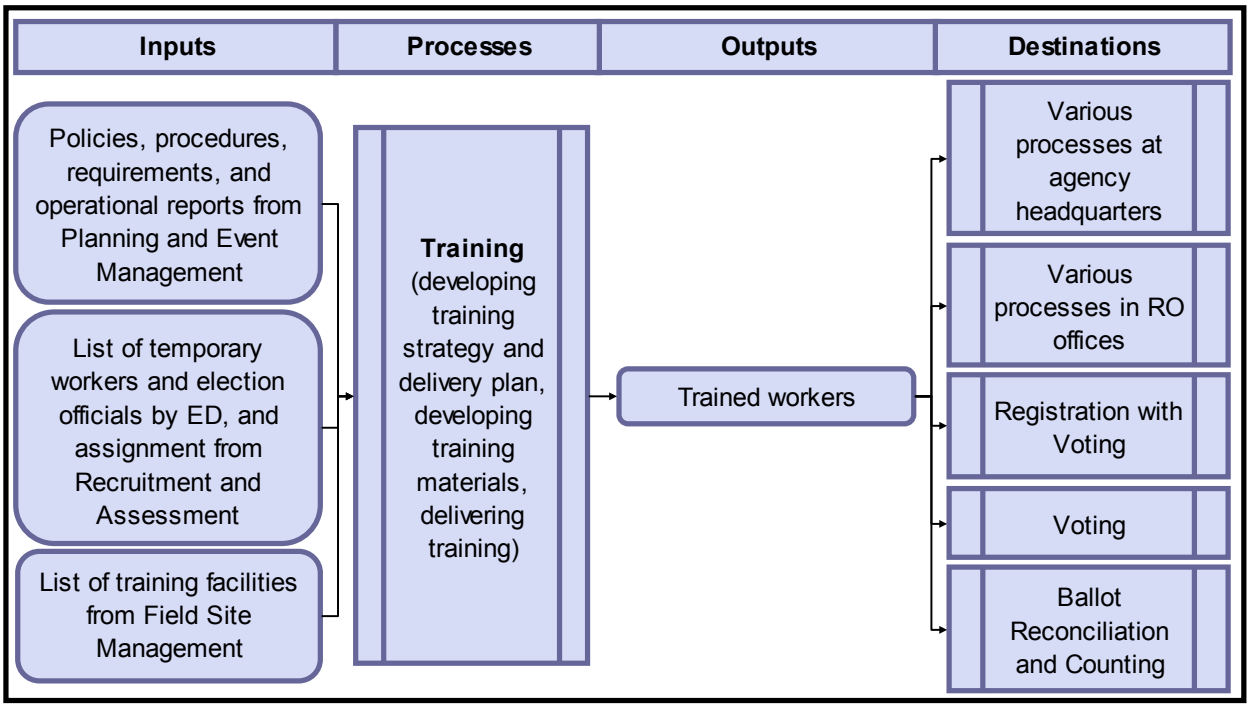
8.3.2.1.6 Training

After months of steady preparation, electoral agencies turn the delivery of an event over to thousands of temporary employees, contractors, and election officials in the final phase. Quality is critically important at this stage because it is essential to ensuring that the right of electors to vote is protected. The registration officers and election officials who deliver an event often interact directly with the electorate and thus, they play an important role in shaping electors'

perceptions of their voting or registration experience and the overall performance of the electoral agency.

The main objective of Training is to produce employees, contractors and election officials who are prepared to undertake their assignments with confidence. As illustrated in Figure 48, these trained workers may perform tasks in a variety of different processes at agency headquarters (e.g., call centre), in Returning Officer offices (e.g., office manager), and in certain processes that are defined specifically by the EMRM: Registration with Voting, Voting, and Ballot Reconciliation and Counting.

Figure 48 Training - Inputs, Outputs and Destinations



Based on the training requirements specified by Planning and Event Management processes, Training processes develop a training strategy and training materials. The training strategy must consider a number of questions for each group of workers who requires training (e.g., Returning Officers, Managers of Returning Officer offices, election officials, electoral finance support staff in head office, etc.):

- what are the key skills these workers need to master and attitudes they need to display?
- what skills would be nice to have?
- where should the training be delivered – in the field, at headquarters, at a central location, on-line?
- what type of training is best suited to teaching the required skills/attitudes – hands-on activities, lecture format, whiteboard activities, video, teleconference, home-study, on-line, etc.

- who is best positioned to deliver training – headquarter staff, the Returning Officer, a professional trainer, etc.?
- what is the budget for the training/what is the length of time allotted to train this group of workers?

After considering these questions, agencies will arrive at different answers regarding the best way to train different groups of workers. As an example, some have Returning Officers train their own staff and election officials directly, while others hire professional trainers to train election officials. Electoral agencies share best practices and learn from one another about what works in the area of training. The types of materials produced for training include instructional videos, presentations, instructor guides, participant workbooks, textbooks, sample ballots, etc.

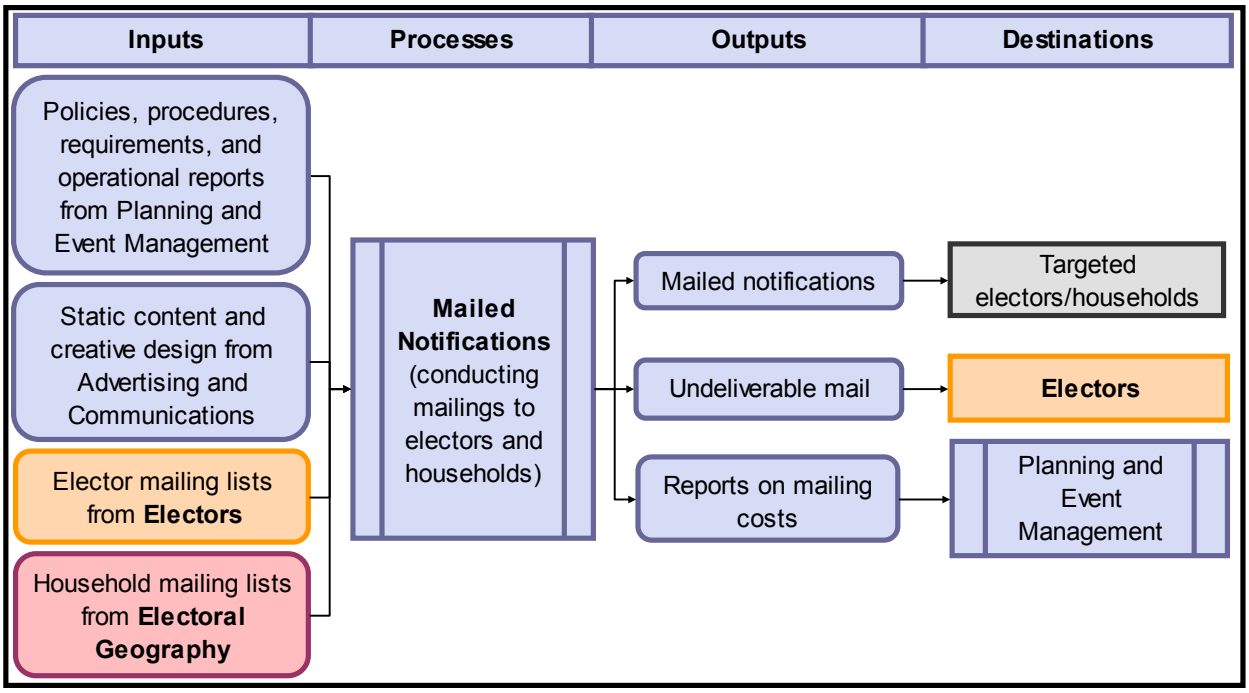
When the strategy for the best approach to training is established for each sub-group of workers, the Training processes develop the necessary training materials and make arrangements for training facilities, as required to support the strategy.

Destinations
The output of Training is trained workers and these are destined to perform tasks in a variety of different processes at agency headquarters, in Returning Officer offices, and in polling places (e.g., Registration with Voting, Voting, and Ballot Reconciliation and Counting).

8.3.2.1.7 Mailed Notifications

Mail is used in many events as a means of communicating directly with electors. Notifications may be addressed to registered electors or to the household and mailing lists are provided by the **Electors** and **Electoral Geography** business areas. The targets for mailings are identified by Planning and Management processes and their static content and creative design (template) come from Advertising and Communications. Mailed Notifications processes combine mailing list information with the template through a mail merge process and conduct mailings to targeted electors and/or households. These processes also forward undeliverable mail to the **Electors** business area for review.

Figure 49 Mailed Notifications - Inputs, Outputs and Destinations



One of the largest mailings conducted during a referendum, by-election, or general election is the mailing of Where to Vote cards to registered electors. The cards inform registered electors of their assigned polling place and the location(s) available to them, based on their address, for advance voting. This is generally conducted as an addressed mailing with one piece of mail for each registered elector. The list for the mailing of Where to Vote Cards is provided by the **Electors** business area. Mailed Notification processes merge the mailing list with the Where to Vote Card template supplied by Advertising and Communications processes, to create a customized card for each registered elector. The **Electors** business area processes mail that is returned as undeliverable. To facilitate this process, a bar code is often included on each outgoing piece of mail. When scanned, the bar code pulls up the elector record or household address to which the mail piece is associated.

Mailed Notifications processes may also send mail to a household based on a list provided by **Electoral Geography**. This approach is more commonly used during mail-based enumerations to target empty addresses in urban areas, or cases of multiple registered electors with different surnames associated to a single dwelling unit.

In preparing mailing lists, a Canada Post approved address validation software package, such as Street Perfect or Street Sweeper, is applied to urban mailing addresses by the **Electors** business area. When mailing lists meet or surpass Canada Post accuracy standards, the deliverability of the mail improves and Canada Post offers incentive postage rates. Given the scale of mailings to support an event, even a small reduction on the postage rate can result in large savings. For example, a one cent reduction per piece on 3,000,000 addressed Where to Vote Cards would be a savings of $30,000.

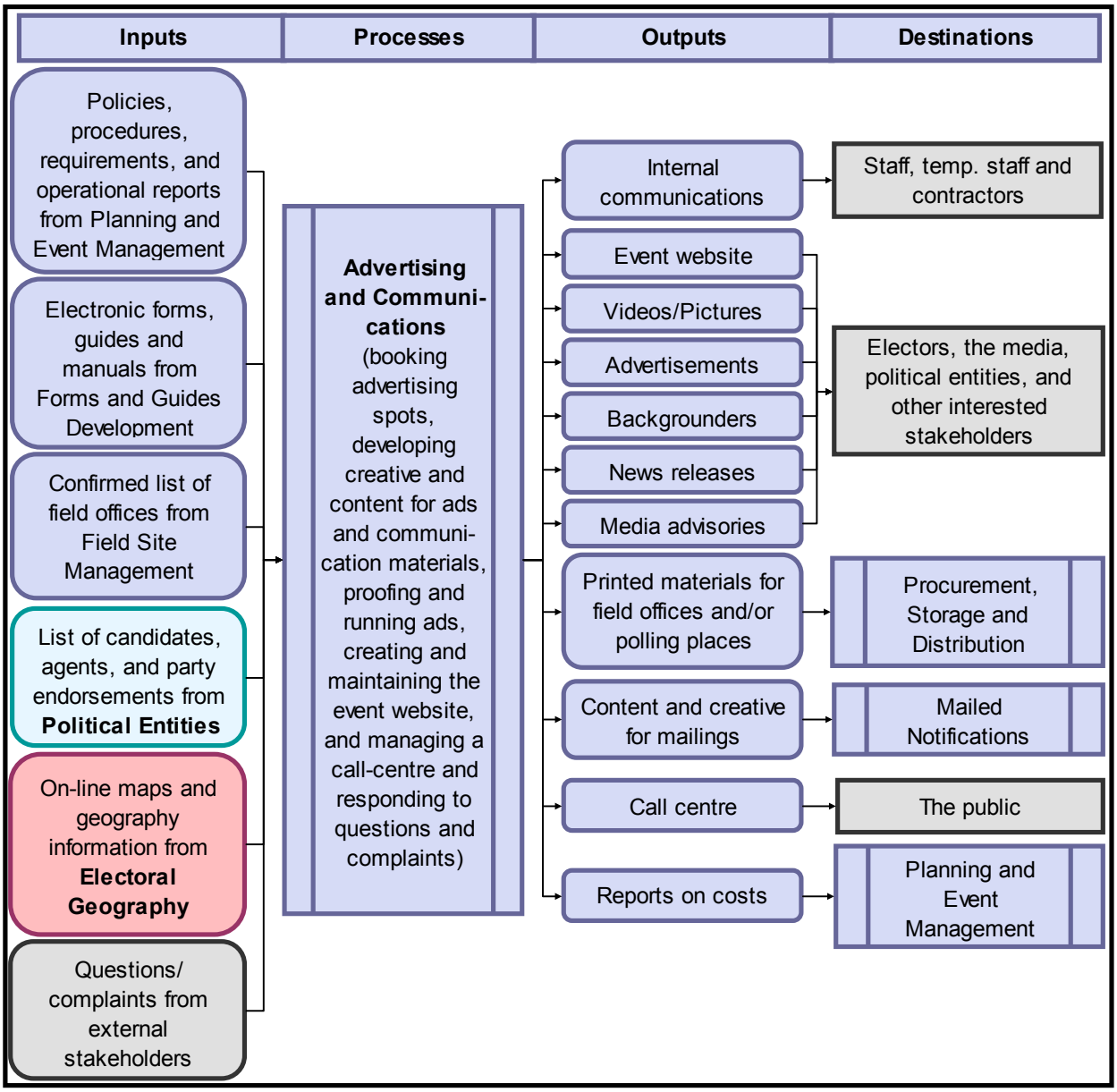
Mail sent to rural areas requires additional information, such as a person's name, a rural route, PO Box, etc. Mail cannot be sent to "the residents" of a household in rural areas; it must be addressed to a person in order to ensure delivery. Rural areas of the country are identified by postal codes that have a zero in the first numeral position (e.g., V0K 1N2).

8.3.2.1.8 Advertising and Communications

During the lead-up to an event and during the event itself, electoral agencies launch intensive advertising and communications campaigns to keep both internal and external stakeholders informed about the event. Electoral advertising and communications campaigns aim to serve key audiences the information they need, when they need it, and in accessible formats. Advertising and Communications processes produce the content and creative for communications products, book advertising spots and time, proof statutory and non-statutory advertisements, and create and maintain the event website. They also manage a call centre and correspond with external stakeholders to ensure that questions and complaints are addressed accurately and efficiently.

Planning and Event Management processes identify the high-level communications strategy and requirements. This involves defining the key messages that need to be communicated to identified audiences at different points in time during the event. Key messages often reflect changes to legislation that need to be communicated to electors (e.g., identification is required at the polling place). While most of the planning and strategizing is done before implementation of the event, some is done during the event so that communications processes can respond in real-time. For instance, during an enumeration, Planning and Event Management processes may identify areas of relatively low response to enumeration efforts and direct Communications and Advertising processes to undertake additional local advertising in targeted geographic areas.

Figure 50 Advertising and Communications - Inputs, Outputs and Destinations



Given budget constraints, electoral agencies work to make effective use of various forms of earned media; that is, publicity and media attention gained through promotional efforts other than advertising, such as news releases, op-ed pieces, letters to the editor, as well as various forms of social media (blogging, videos on YouTube, postings on Facebook, etc.). A large variety of communications products are produced to satisfy different purposes, as summarized in Table 4.

Table 4 Communications Products, Distribution Channels, and Audiences

Communications Product	Distribution Channel	Target Audience(s)	Main Purpose
Statutory Advertisements	Newspapers	Electors	To inform about when and where voting will take place and who the candidates are.
Advertisements	Radio On-line TV Newspapers Movie theatres	Electors	To motivate electors to participate and to distribute key messages – e.g., ID required.
News Release	On-line Email Fax	News media	To announce an event-related development and encourage the news media to write articles on the subject.
Media Advisory	On-line Email Fax	News media	To advise members of the news media, through a brief announcement, about an activity or upcoming event (e.g., press conference).
CEO op-ed / letter to the editor	Newspaper On-line	News media	To provide a complete newspaper article or letter that expresses the opinion of the CEO with the goal of having it published in a variety of newspapers across the jurisdiction.
Backgrounders/ Fast Facts/ Q&As	On-line Email Fax	Media and electors	To provide valuable context and explanation of some of the detail that underlies news release contents.
Social media	On-line	Electors	To reach particular demographics (e.g., younger electors) by providing information on-line through YouTube, Facebook, etc.
Event website	On-line	Electors	To inform electors about the event through information posted on the event website.
Internal communications	Intranet Email	Staff and appointees	To keep staff informed of developments and to maintain a sense of cohesion among geographically dispersed team members.
Scripts or audio files	On-line	Electors with low literacy or visual impairments	Audio versions of advertisements and other information may be created to improve the accessibility of information to electors with low literacy levels and/or those with visual impairments.

The event website occupies a place of growing prominence in the communications strategies of electoral agencies. Increasingly, electors are turning to the web to obtain information.

Advertising and Communications processes design and populate the event website with information. A lot of the subject-matter information posted on the website comes from other business areas; for instance, the list of candidates comes from **Political Entities** and online maps and geography products come from **Electoral Geography**.

Most jurisdictions are required by law to advertise certain information in local and major newspapers at key junctures in the election period. Below are some examples of the sorts of information that jurisdictions may be required to announce in the print media:

1. that an election has been called;
2. the dates, times, and places at which nominations will be received by Returning Officers;
3. the names of candidates, their party affiliations or independent status, their agents' names, and contact information; and
4. the dates, locations, and hours for voting.

Careful attention to proofing is needed for these advertisements as they provide specific information that is often customized by electoral district. The details to populate the advertisements come from other business processes. For example, the list of candidates by electoral district is provided by **Political Entities**.

A call centre is often established to handle frequently asked questions from the public. Where telephone registration is permissible, jurisdictions may also offer direct registration services through the call centre. Where telephone registration is not allowed, operators must direct electors who wish to register to other channels, such as mail or on-line. The call centre may be staffed by temporary employees of the agency, or the service may be contracted out.

In addition, Advertising and Communications processes produce the static print content and creative design for Where to Vote Cards and enumeration notices. The dynamic content that comes from the **Electoral Geography** or **Electors** business area is merged into the template by Mailed Notification processes. Special materials may also be produced for distribution to polling places, field offices, or other destinations (e.g., libraries) by Advertising and Communications processes. Printed copies of these documents become an input to Procurement, Storage, and Distribution.

With the exception of motivational advertisements, electoral agencies tend to produce the written content or scripts for communications products in-house. External advertising and graphic design services tend to be hired for creative input and the production of radio, movie, and TV advertisements. The professional services costs associated with booking advertising space or time and hiring creative talent comprise a fairly large proportion of the event budget. In particular TV and movie theatre advertising are very expensive. Advertising and Communications processes provide cost reports to Planning and Event Management throughout the event to avoid cost over-runs.

Destinations

There are several destinations for communications products. Internal communications are generally distributed to permanent and temporary staff and contractors via email or through an

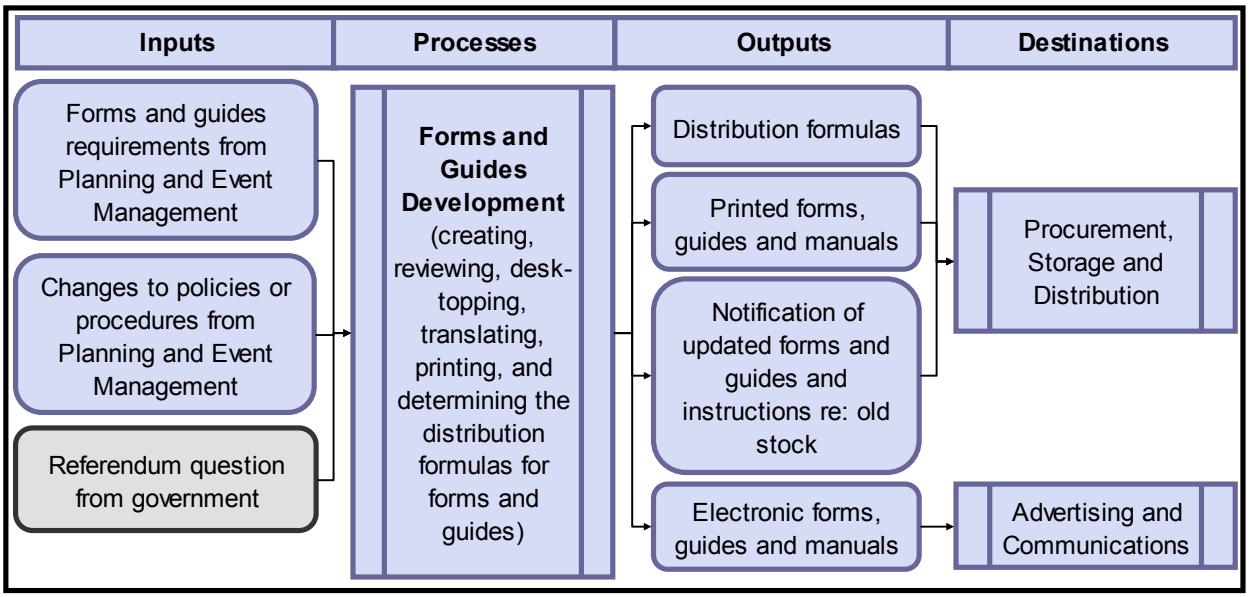
intranet. Earned media and advertisements are destined for electors, the media, political entities, and other interested stakeholders. Advertising and Communications also produces products that become inputs to other business processes in the **Events** business area. For instance, materials produced for distribution to electors via polling places or field offices become inputs to Procurement, Storage, and Distribution. The static content and creative design for mailed communications become an input to Mailed Notifications. Call centre services provide answers to frequently asked questions from members of the public. Finally, Advertising and Communications prepares regular cost updates for Planning and Event Management.

8.3.2.1.9 Forms and Guides Development

Forms and Guides Development processes create and produce the forms and guides used in event administration.[25] A review of forms and guides takes place prior to an event, during the inter-event and pre-event phases of the business cycle.

Forms are used extensively in the administration of events for a variety of purposes. As an example, forms are used to ensure that required information is collected in a consistent format from electors and political entities when they register. They also help to ensure that event workers follow procedures and keep their documents organized. Some forms are completed as a means of transferring information from the field to the agency headquarters for compilation. Referendum and write-in ballots are forms because they do not vary by electoral district. Guides are developed to assist various stakeholders in understanding their responsibilities vis-à-vis the event. Some jurisdictions produce guides to the electoral law in their jurisdiction to make the legislation more accessible to a range of stakeholders.

Figure 51 Forms and Guides Development - Inputs, Outputs, and Destinations



[25] All event-related forms and guides are produced by Forms and Guides Development, except training workbooks, manuals and other training materials, voting books, and forms and guides produced by Political Entity Support processes.

The content of forms and guides is created by subject matter experts and driven by legislated requirements, policies and procedures, lessons learned, and the needs of the intended audience. Electors, for instance, are a very broad stakeholder group and include a wide variety of literacy levels and language competencies. Forms that are intended for electors are generally written in plain language and may include pictures, so as to accommodate a range of literacy levels. Selected materials are translated into a variety of languages to meet the needs of different cultural groups.

The layout and design of forms and guides is sensitive to the needs of the audience and may also reinforce proper procedures. For instance, a ballot reconciliation and results form may have the ballot reconciliation portion at the top of the form because this step should be completed before the ballot box is opened and the votes counted. Forms are designed to be as intuitive to the user as possible, so that the information collected is fit to serve the intended purpose.

Forms and guides are produced in a variety of formats. Increasingly, forms and guides are being published in electronic format and distributed through the event website. This is particularly the case with forms and guides related to political entity and elector registration. Electronic forms and guides are provided to Advertising and Communications for posting to the event website.

Forms that are intended for use in the field administration of events by election officials or enumerators, are printed through Forms and Guides Development processes and distributed in hard-copy by Procurement, Storage, and Distribution processes. Every form and guide that is produced in hard-copy must have an associated distribution formula that determines the quantity of that document that must be printed and ultimately distributed. The derivation of the formula considers how many copies of the document are used by whom, where and how. Each formula includes parameters that vary with each event (e.g., number of political parties, electoral districts, polling divisions, election officials, etc.) The formulas include a contingency factor to accommodate for unusual circumstances and for identified risks. As an example, if elector registration rates are known to be particularly low in a particular electoral district, the contingency on registration forms may be higher in those districts.

Distribution Formula Example for Ballot Reconciliation Forms

One form is needed for each:

- polling division =3,000
- polling station at advance voting =400
- mobile poll=100
- absentee polling station=200

Contingency is needed to account for polling division splits and lost or damaged forms – 10%.

Number of ballot reconciliation forms required =
(# polling divisions + #advance polling stations + #mobile polls + #absentee stations)*1.10

(3,000+400+100+200)*1.10=4,070

In larger agencies, where there may be many different people creating forms and guides for different purposes, it is sometimes challenging for electoral agencies to ensure a consistent use of terminology and a design that represents the electoral agency or the event. As well, there may be a tendency for forms created by different functional units within the organization to over-lap in purpose or for an area to be neglected because of a failure to communicate. A formal approval and review process is helpful to ensure that collaboration takes place when required, and that the final product represents the agency and/or the event well in terms of its content and appearance. Many organizations also make use of a style guide that specifies standards for the agency in terms of written language (e.g., when to capitalize, acceptable abbreviations, etc).

Destinations

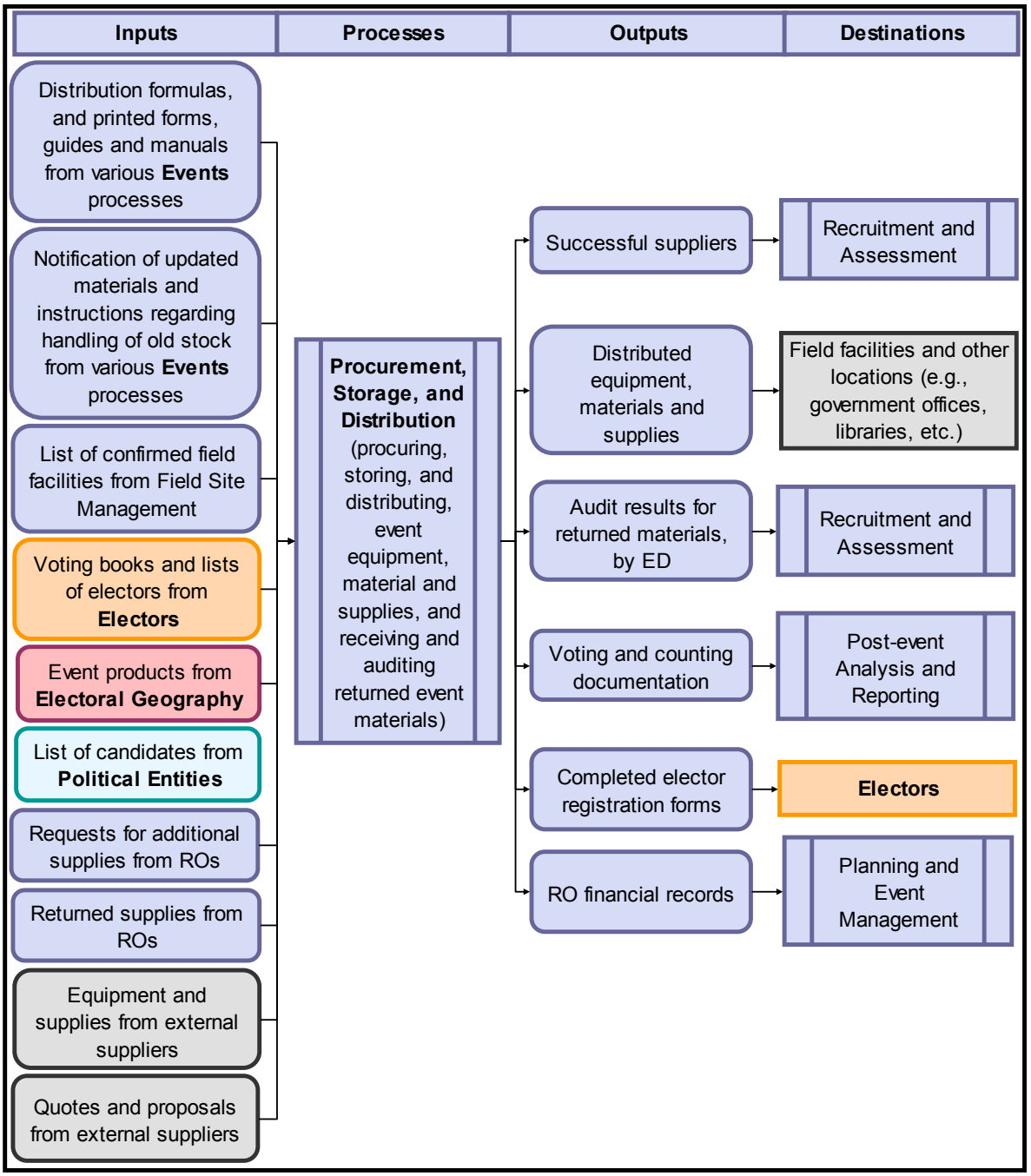
Forms and Guides Development processes produce printed forms and guides in sufficient quantities to satisfy distribution requirements, distribution formulas, and electronic documents. Hard-copies of printed documents are sent to Procurement, Storage, and Distribution for distribution to the intended audience in accordance with the distribution formula. Instructions regarding the continued use and/or disposal of previous versions of forms also become an input to Procurement, Storage, and Distribution processes. Those forms that are produced in electronic format are posted on the event website by Advertising and Communications processes.

8.3.2.1.10 Procurement, Storage, and Distribution

Procurement, Storage, and Distribution processes procure, store and distribute event equipment, material, and supplies, and receive and audit returned materials. The items that are stored and distributed to the field include equipment and supplies that are purchased or leased from external sources, event materials produced in-house, including printed forms, guides, manuals, voting books, lists of electors, lists of candidates, etc.

Procurement, Storage, and Distribution processes include the purchase or lease of equipment and supplies that are coordinated centrally, as opposed to being sourced locally by Returning Officers. Agencies may select suppliers of photocopiers, computers, printers, fax machines, and/or cell phones through a competitive bid or proposal process. These are all areas where bulk discounts may apply and consistency in the type of the equipment in the field makes it easier for headquarters to support. Equipment may be distributed to Returning Officers from headquarters and/or it may be delivered and installed by the supplier.

Figure 52 Procurement, Storage, and Distribution - Inputs, Outputs and Destinations



Depending on their size, electoral agencies may establish one or more warehouses to organize and store event-related materials. Smaller jurisdictions may use a room within their office space to store event materials and supplies. Supplies necessary to administer an event are determined prior to an event. Inventory levels are tracked and compared against distribution formulas to ensure sufficient quantities are on hand for the event. During the inter- and pre-event phases, pre-defined quantities of materials are packaged so that they are ready for shipping when field

offices are established. Returning Officers are provided with supply lists to allow them to confirm that they have received the required quantity of each item.

There is usually a review and approval process to handle requests for additional supplies. When forms are in short supply and/or required in a tight frame, Returning Officers may use their own printing equipment or a local printing supplier to reproduce forms with an electronic file. Additional stationery supplies, such as pens and paper are generally sourced locally and paid for with petty cash.

Materials are shipped by the electoral agency to field offices and then distributed by Returning Officers to polling places and training facilities, as necessary. Agencies may use the distribution services of several different suppliers, depending on the circumstances, including, Canada Post, provincial or territorial government mail distribution services (e.g., BC Mail Plus), and private couriers. Agencies support Returning Officers with their office set-up, particularly in the areas of computers and telecommunications.

At the conclusion of the event, field office materials and equipment are sent back to the agency by Returning Officers. Returned supplies include voting documents, completed registration forms, financial documents, and all remaining election materials destined for recycling, confidential destruction or re-use. Specific instructions are provided regarding how materials are to be sorted and organized prior to return. Procurement, Storage, and Distribution processes may audit returned materials to ensure procedures have been followed and to provide input toward an assessment of Returning Officer and/or Assistant Returning Officer performance.

Certain types of returned materials are distributed to other business processes for review; for instance, voting and counting documentation becomes an input to Post-Event Analysis and Reporting, and financial documents become an input to Planning and Event Management processes. Procurement, Storage, and Distribution processes must comply with electoral legislation regarding retention schedules for event materials. For example, in B.C., ballots, unopened and resealed certification envelopes, ballot accounts, voting books, and lists of electors used in conducting an election or referendum, must be retained for one year after Voting Day.

Destinations

Recruitment and Assessment processes are informed of the successful bidder(s) on selection processes for event equipment, so that a contract can be established for these services. Supplies are distributed to field offices of Returning Officers, or other locations, such as training venues, government offices, libraries, and polling places. The results of an audit of returned materials may become an input to performance assessments of Returning Officers conducted as part of Recruitment and Assessment. Returned voting documentation becomes an input to Post-event Analysis and Reporting for analysis. Completed registration forms from registration in conjunction with voting become an input to the **Electors** business area.

8.3.2.1.11 Post-Event Analysis and Reporting

Post-Event Analysis and Reporting processes gather and synthesize information from all parts of the organization and from external stakeholders to identify lessons that can be learned from the administration of the event. Information is collected through a variety of methods, including

surveys, meetings, reports, etc. In addition, documentation from the administration of voting and counting, such as voting books and ballot account forms, may be reviewed to assess the overall quality of electoral administration in the field. Chief Electoral Officers are required to report on the event by summarizing the results of general elections, by-elections, and referenda, providing recommendations for legislative change and elaborating on the agency's experiences with event delivery. These reports are produced by Post-Event Analysis and Reporting processes.

In order to identify lessons learned, information is gathered in a number of different ways from various stakeholder groups.

1. *Surveys*

Surveys (paper, on-line, and telephone) are a relatively inexpensive means of gathering input from a large stakeholder group and identifying issues. They are well-suited to capturing information about what happened, but less able to enhance an organization's understanding of the deeper dimensions of issues and possible solutions. For instance, a survey may show an association between voting behaviour and interest in politics, but it cannot explain why such a relationship is observed. Surveys are best used as a means of identifying issues that can then be explored further through different forms of in-person discussions.

Many agencies conduct surveys of voters and non-voters after elections to gain a better understanding of the roots of declining rates of participation. A written report of the survey results is often posted on the agency website and some organizations are also posting the data, stripped of all identifiers, to permit researchers to independently analyze and draw conclusions from the data.

2. *Staff meetings*

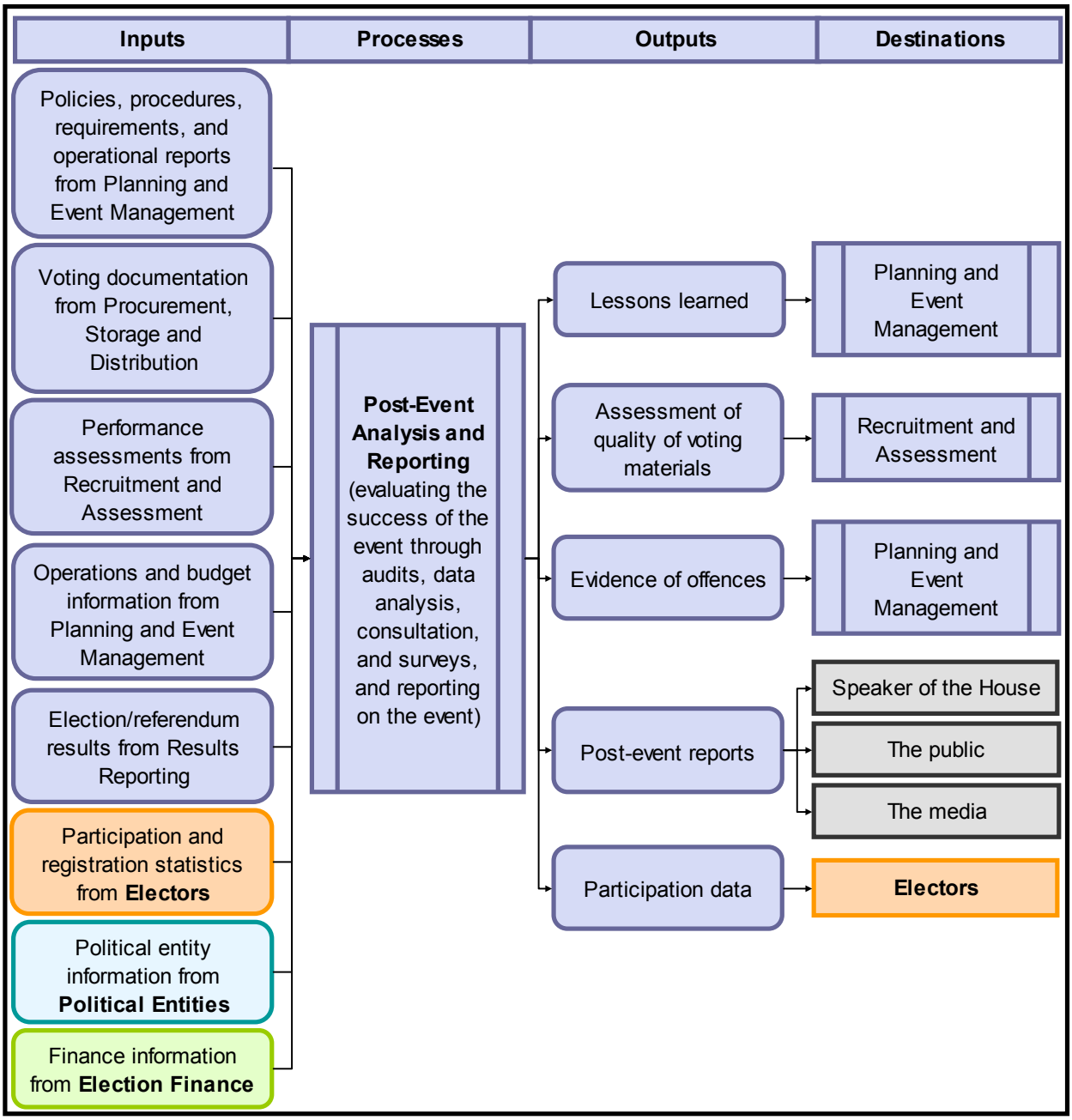
Staff meetings may be conducted with permanent and temporary employees, as well as contractors. These meetings generally take place at the functional unit level, as well at the overall organization level.

3. *Post-event conferences and staff meetings*

Large conferences are a common way for agencies to gather feedback from Returning Officers, Assistant Returning Officers, and their staff. Conferences often include break-out groups to encourage participation. Agencies may conduct a survey beforehand so that the main issues are already identified and the conference can explore the specific nature of the issues and how to improve.

An over-riding concern around the collection of information from people in large groups is creating an environment where people feel safe to share their critical thoughts with the shared goal of continuously improving service to electors and other stakeholders. For many, the experience of event delivery may have been stressful and emotions may be quite raw. There may be a tendency at large gatherings for the group to fall into a pattern of complaining as opposed to identifying issues and discussing solutions. Careful planning needs to take place ahead of time and in the introductory remarks of key personnel in order for these meetings to make effective use of time and resources.

Figure 53 Post-Event Analysis and Reporting – Inputs, Outputs and Destinations



4. Audits and post-event analysis

Electoral agencies may conduct audits of election materials to assess the overall quality of voting and counting administration and to identify evidence of offences. Any error patterns observed become lessons to be incorporated into the planning of the next event. The results of an audit of election material may become an input to an assessment of Returning Officer and/or Assistant Returning Officer performance. If a review of election materials uncovers evidence of an offence (e.g., multiple voting), this information becomes an input to Planning and Event Management processes for investigation.

Lessons learned from all sources are compiled, formulated into recommendations for action, and provided to Planning and Event Management, where they shape the development of policies, procedures, and requirements for the next event.

Chief Electoral Officers are required to report to the legislative assembly or parliament through the Speaker on events. They may be required to submit a report or separate reports that detail the proceedings, results, and costs of the event, as well as recommendations for legislative change. Event reports are an opportunity for electoral agencies to educate stakeholders and the public about the challenges inherent in running an event and to draw attention to areas of the law that may not be functioning as intended.

The overall requirements for event reporting are provided by Planning and Event Management processes based on legislation and lessons learned from previous events. Input is required from many different parts of the organization to support the development of event reports: budget and operations information is provided by Planning and Event Management processes; validated election and referendum results are provided by Results Reporting processes; participation and registration statistics are provided by the **Electors** business area; political entity registration information comes from **Political Entities**; and election financing information comes from **Election Finance**. The information is compiled to create an interesting, accurate and complete historical record of the proceedings and results of the event. After they have been made public, post-event reports may be printed in hard-copy, and/or posted on the agency website in electronic format.

Finally, some agencies produce detailed participation statistics that involve marrying information from voting documentation with the register of electors. Participation statistics are created by flagging individual records on the register of electors to indicate which electors participated in the event. Because participation information is captured at the case level in the register of electors, it can be used to produce participation rates by age, gender, polling division, and by any other descriptive variables available in the register. Post-Event Analysis and Reporting processes may produce an electronic data file listing the electors who participated. This file then becomes an input to the **Electors** business area where it is combined with the register of electors to create participation statistics. Some agencies create participation statistics based on a census of all participants, and others select a sample of polling divisions, and others do not produce demographic breakdowns of participation statistics at all.

Destinations

Lessons learned are an extremely valuable input to Planning and Event Management because they are used to shape the planning of future events to ensure continuous improvement. Assessments of the quality of voting and counting materials may become an input to performance assessments conducted as part of Recruitment and Assessment processes. Any evidence of offences discovered during the review of voting and counting documentation is provided to Planning and Event Management for investigation. Post-event reports are provided to the Speaker of the House and are then made public. Participation data is captured and provided to the **Electors** business area for the development of participation statistics.

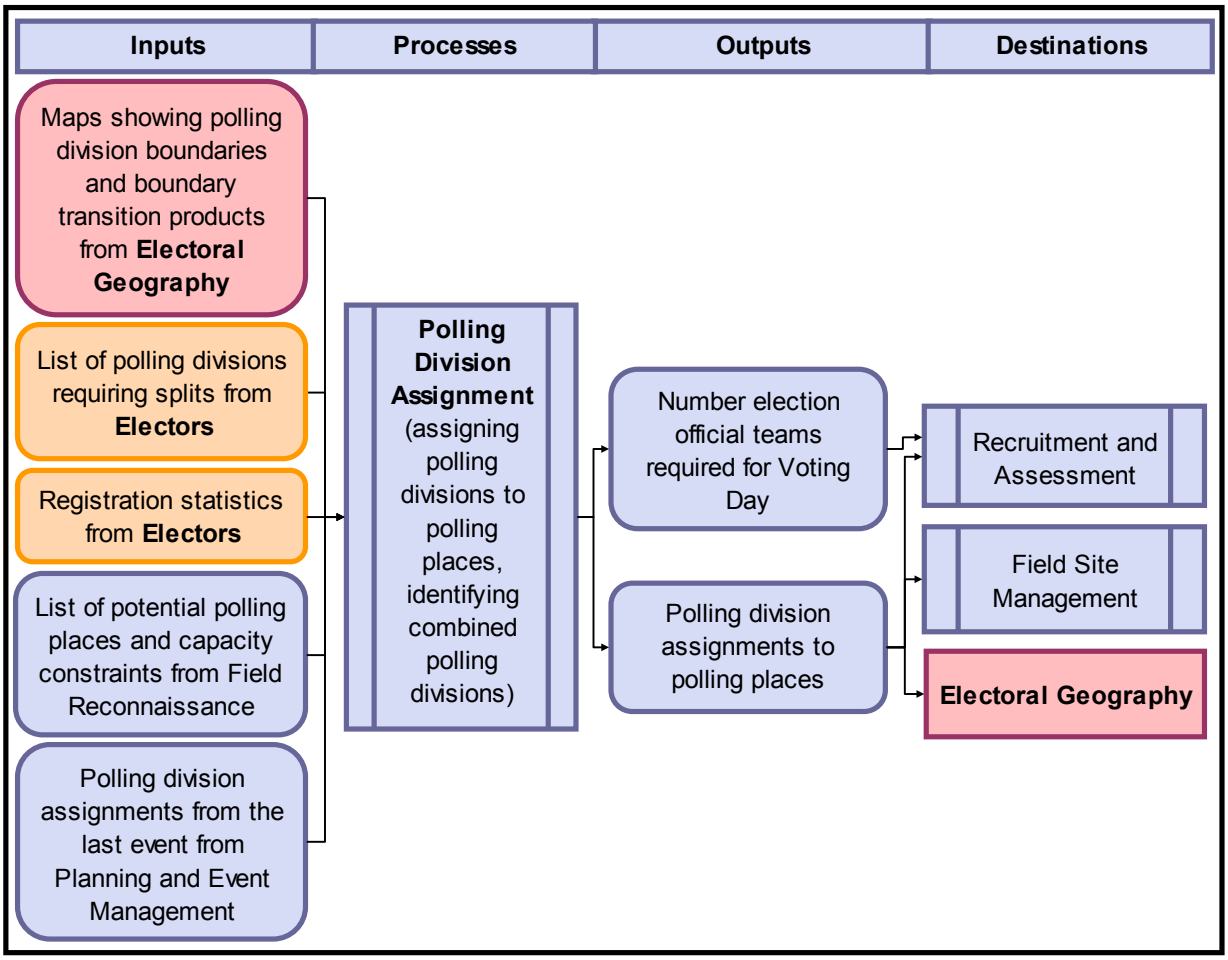
8.3.2.2 Elections and Referenda

The six processes in this section are specific to elections, by-elections, and referenda.

8.3.2.2.1 Polling Division Assignment

As discussed in the **Electoral Geography** business area (Figure 14, page 49), most jurisdictions assign polling divisions to polling places. The number of registered electors within the boundaries of a polling division should be approximately equal to the maximum number that a Poll Clerk and Deputy Returning Officer can administer voting to on Voting Day. Returning Officers assign polling divisions to polling places after conducting Field Reconnaissance processes to identify the list of potential polling places for their electoral district.

Figure 54 Polling Division Assignment - Inputs, Outputs and Destinations



There are several important inputs to the assignment of polling divisions to polling places. **Electoral Geography** provides polling division maps, which assist Returning Officers in visualizing the assignments and identifying accessibility issues. Boundary transition products may also be required if boundaries have changed. In addition, historical information regarding polling division assignments from the last event are useful because, where possible, it is important to accommodate electors' expectations for consistency from one event to another. The **Electors** business area identifies polling divisions requiring splits because they exceed the

maximum allowable number of registered electors. Split polling divisions require a separate polling station within the polling place for each split. Returning Officers also make decisions about combining polling divisions that have fewer than the maximum number of registered electors. For instance, if two neighbouring polling divisions have fewer than 150 registered electors each, the Returning Officer may choose to combine them and assign them to a single team of election officials. All of this information is compared against the distribution and capacity constraints of potential polling places identified during Field Reconnaissance to identify the optimal assignment of polling divisions to polling places such that elector accessibility is maximized and cultural and historical considerations are taken into account.

A challenge in assigning polling divisions to polling places is identifying and adhering to acceptable levels of accessibility. Accessibility cannot be defined the same way throughout the electoral district. In densely populated urban areas, electors may expect their polling place to be within walking distance of their home; whereas, in rural areas, the expectation may be that the polling place is within a 20 minute drive. While there is always a desire to make cost-effective choices when assigning polling divisions, it is important to maintain the number of polling places wherever possible, as reduced accessibility may impact elector turnout.

Destinations

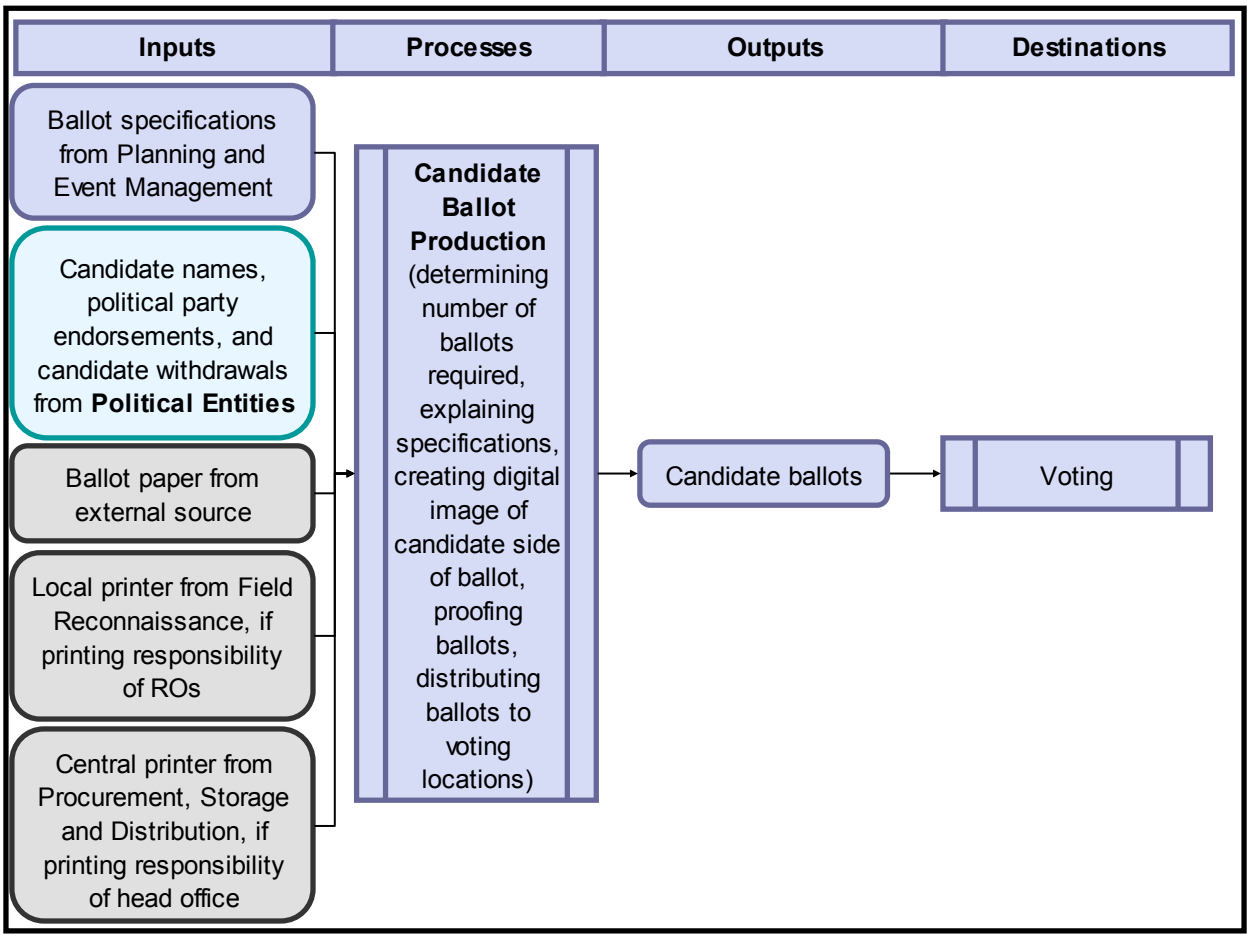
An output of Polling Division Assignment is the number of Poll Clerk/Deputy Returning Officer teams required for Voting Day. Split polling divisions require two or more teams of election officials, depending on the number of splits. Combined polling divisions require fewer teams of election officials than they would if they were administered separately. When polling division assignments are completed, the number of election officials that need to be recruited for Voting Day and their workplace assignments are known. These are both important pieces of information for Recruitment and Assessment processes.

Polling division assignments are also an input to Field Site Management processes, which secure polling place leases. The polling places to which polling divisions are assigned are the ones that need to be leased by Field Site Management processes for use on Voting Day. **Electoral Geography** uses polling division assignment information to generate where to vote maps.

8.3.2.2.2 Candidate Ballot Production

There are three different types of ballots: referendum ballots, write-in ballots, and candidate ballots. Referendum and write-in ballots are considered to be standard forms because the information on the face and back of the ballot is constant across electoral districts. The candidate ballot, which is used in general elections and by-elections, varies by electoral district because the list of candidates is different in each electoral district. Further, the list of candidates is not known until nominations close, so candidate ballots must be produced between the close of nominations and the start of voting opportunities that require candidate ballots. In some jurisdictions this time period may be as little as seven days. The approach to candidate ballot production is important because this is an area of the election where quality and timeliness are both critical to overall success.

Figure 55 Candidate Ballot Production - Inputs, Output and Destination



Many of the specifications for candidate ballots are defined by legislation:

- the inclusion of a stub and counterfoil, perforation requirements, and what should be printed on the stub and counterfoil (e.g., date of Voting Day, electoral district name, place for voter number, and same sequential number of ballot on the stub and counterfoil);

- what should be printed on the candidate portion of the ballot (e.g., candidate full name, registered political party name if endorsed, and independent if declared as such on nomination documents);
- the ordering pattern (e.g., alphabetical by surname) and how to deal with ties; and
- some legislation also specifies the number of ballots in each booklet.

Legislation may also define the colour and width of the ballot and use of party logos. The length of the ballot is difficult to specify because it varies depending on the number of candidates running in a given electoral district. Chief Electoral Officers often specify the weight of paper to be used for candidate ballots.

The number of ballots in a book influences the distribution formula for candidate ballots. Smaller books of ballots offer more flexibility in terms of distribution and, therefore, require a smaller contingency factor. However, agencies that have discretion in terms of the size of the book of ballots may find that it is more cost-effective to produce larger books of ballots, even though more ballots will be printed overall. This is because the cost of binding the books is substantial relative to cost of printing ballots. An estimate of the number of ballots required for the electoral district and the number of candidates that will be nominated in each electoral district may be made before the close of nominations so that sufficient quantities of ballot paper are on hand for printing.

Many agencies print a security image on the back of the candidate ballot to ensure opacity and the secrecy of the vote, and to permit the identification of forged ballots. This portion of the ballot is usually printed prior to the close of nominations. At the close of nominations, the **Political Entities** business area provides the candidate names, political party endorsements, etc. for the candidate portion of the ballot. Candidate withdrawals that take place between the close of nominations and the start of voting are an input to Candidate Ballot Production processes so that appropriate action can be taken.

Depending on the amount of time between the close of nominations and when the candidate ballots need to be available for use, agencies may opt to produce candidate ballots centrally, to assign this responsibility to Returning Officers, or to do a combined approach. After the close of nominations, a digital image of the face of the ballot must be proofed at headquarters or by the Returning Officer prior to production. Printers are supplied with the proofed digital image and printing instructions, including direction regarding the sequence number on the stub and counterfoil of each ballot. There are no tracking numbers on the candidate portion of the ballot to ensure that each vote is anonymous. Some jurisdictions require printers to deliver an affidavit setting out a description of the ballots they printed, the number of ballots printed and delivered, and the fact that no other ballots were printed for that electoral district by that printer.

Destination

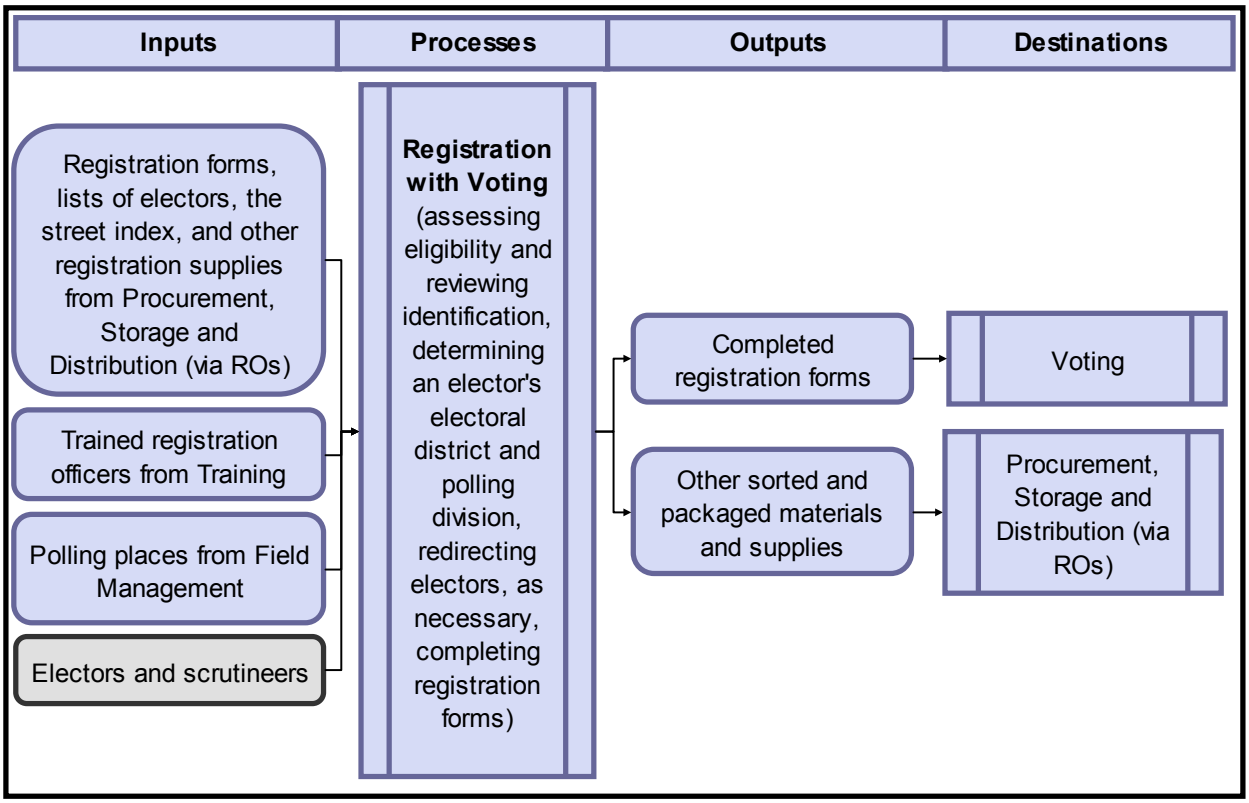
When candidate ballots have been produced, they are distributed to voting sites along with other supplies required to administer voting. For tracking purposes, Returning Officers keep a record of which books of ballots are assigned to each Deputy Returning Officer. Deputy Returning Officers must account for all of the ballots assigned to them during Ballot Reconciliation and Counting processes.

8.3.2.2.3 Registration with Voting

Registration at the polls is an option for eligible electors in all jurisdictions in Canada, except Québec. It is an option for electors who are not on the list of electors, or whose registration is incorrect or out-of-date. While agencies aim to have the highest quality register possible prior to the start of voting, some electors opt for the convenience of registering and voting at the same time. Registration at the time of voting usually requires an elector either to prove their identity and residential address, or to take an oath, or both. Subject to specified conditions, some jurisdictions allow registered electors to vouch for other electors who do not have the required identification documents.

Registration with Voting may occur at all places where voting opportunities are established (e.g., polling places, the Returning Officer's office, and mobile poll locations). Electors need to be registered in order to vote and therefore Registration with Voting processes precede Voting processes.

Figure 56 Registration with Voting - Inputs, Outputs and Destinations



Electors must register at the time of voting if they attend to vote and fall into any of the circumstances below:

- they are not on the list of electors for the electoral district where they reside;
- they have changed their name and it has not been updated on the list of electors;
- they have changed their residential address and it has not been updated on the list of electors; or
- there are errors or omissions in their information on the list of electors (e.g., misspelled name).

Screening is conducted at the entrance to the polling place, or with each elector in a mobile poll, to determine registration status. Election officials are trained to confirm that information on Where to Vote Cards or the list of electors is accurate prior to directing registered electors to their polling stations.

Registration officials begin by assessing elector eligibility according to the criteria established by legislation for the jurisdiction. Those electors who are deemed eligible must meet the jurisdictions requirements in terms of proving their identity and residential address. The residential address is important for assigning electors to an electoral district and polling division and determining whether they have attended to vote at their assigned polling place. In B.C., electors have the option to vote absentee if they are not at their assigned polling place. In other jurisdictions, registration officials need to redirect electors if they have not attended to vote at the polling place to which their polling division is assigned on Voting Day. **Electoral Geography** products such as the street index are used to identify an elector's polling division based on their residential address.

In some jurisdictions, Registration Officers may need to follow different procedures for an elector who is a new registrant to the electoral district (not on the list of electors for the electoral district) versus an elector who is updating an existing registration. This is confirmed by reviewing the list of electors to determine if the elector is already on the list. If they are on the list, and updating to a new address in the electoral district, changing their name or correcting a spelling error, they are considered to be updating an existing registration. Otherwise, they are considered to be a new registrant. Some jurisdictions do not require electors who are updating an existing registration to provide identification.

Chief Electoral Officers define acceptable forms of identification for proving an elector's identity and residential address. Often, one piece of government-issued identification such as a driver's license or provincial/territorial identification card will satisfy both the identity and residential address requirements simultaneously. This is because these documents include the elector's photograph, name and residential address. Electors who do not have one of these forms of identification may need to produce two documents that together prove their identity and residential address. Some jurisdictions also permit registered electors to vouch for one or more electors whom they know.

When the identification requirements have been satisfied, Registration Officers proceed with completing the required registration form. It is critical that Registration Officers have legible

hand writing and that they follow procedures. The forms completed by them will be incorporated into the register of electors by processes in the **Electors** business area. After each election, significant resources are consumed in the **Electors** business area resolving addresses and interpreting information provided through Registration with Voting.

When registration forms are complete, electors proceed to Voting processes. In a polling place, they are directed to the polling station that corresponds with their polling division. The completed registration form is usually carried by electors to their polling stations as proof of their registration. In a mobile setting, the election official would complete the Registration with Voting processes first and then proceed with Voting processes. When electors vote-by-mail, a registration form may be included in their package and they may send photo-copies of required identification documents.

Destinations
At the conclusion of Registration with Voting processes, the completed registration forms become an input to Voting processes. Ultimately, the completed registration forms are processed in the **Electors** business area in preparation of the final list of electors. All other registration materials used in the administration of Registration with Voting are packaged for return to headquarters via Returning Officers.

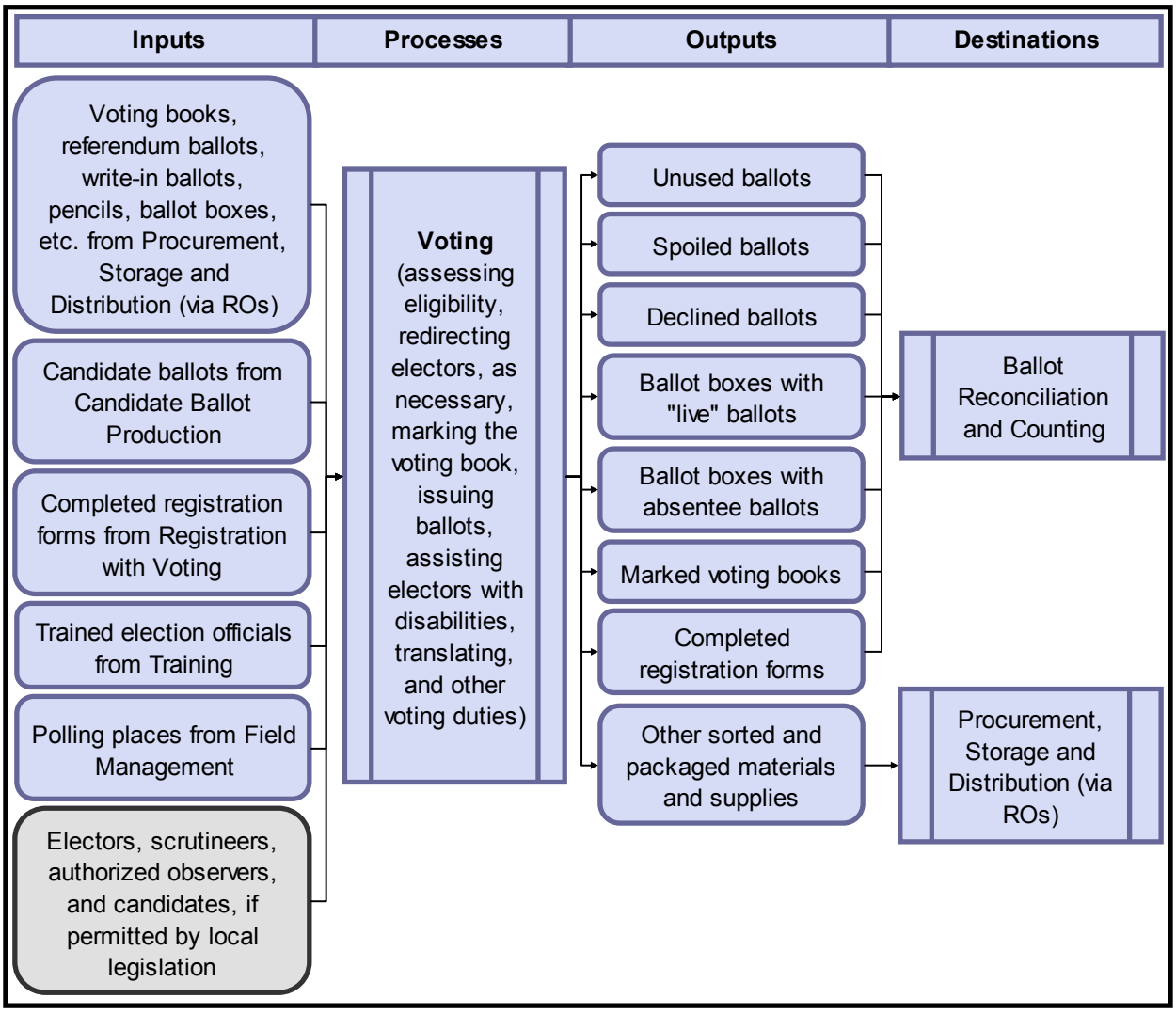
8.3.2.2.4 Voting

Many jurisdictions offer a range of different voting opportunities to ensure that voting is accessible to electors. Section 8.2.1.3 reviewed the voting opportunities currently offered by Canadian jurisdictions. This section focuses on the specific processes associated with voting, from the time electors begin to interact with election officials to when their ballots are deposited into a ballot box. These processes apply to electors who attend to vote at a place designated for voting or who vote with a mobile team. The processes for vote-by-mail are explained separately.

Candidates may appoint representatives or scrutineers to observe voting and obtain information from voting books regarding who has voted. Some jurisdictions permit candidates to act as their own representative. Under certain circumstances, jurisdictions may also permit authorized individuals to observe Voting processes. Otherwise, only election officials, electors, individuals in their care, translators, and persons assisting electors are permitted in polling places during voting hours.

Standard voting process
Prior to the start of voting, election officials may show scrutineers that ballot boxes are empty. If there are multiple days of voting, as in the case of advance voting in some jurisdictions, the slot of the ballot box is sealed at the close of voting each day, and the seal is broken at the start of voting the next day with scrutineers and other election officials acting as witnesses.

Figure 57 Voting - Inputs, Outputs and Destinations



The Voting process begins when an elector arrives at a polling station within a designated place for voting or when a mobile team visits an elector. Electors can proceed with voting processes if their information on the list of electors is current and accurate or they have a completed registration form. Some jurisdictions require electors to show identification prior to voting. Identification documents must prove an elector's identity and residential address. As in the case of Registration with Voting, electors who do not have the required identification documents may take an oath and/or be vouched for by another registered elector in some jurisdictions.

The Poll Clerk maintains a record in the voting book of who has voted. The first step is to locate the elector on the list of electors in the voting book and confirm that the listed information is accurate by asking the elector to state their name and current residential address. Electors who present a completed registration form may be entered into another section of the voting book. Depending on the voting opportunity, election officials may also need to check for evidence that the elector has already voted. For instance, voting books used on Voting Day will be marked to show who has already voted during the advance voting period and/or who has requested a vote-

by-mail package.[26] Some jurisdictions require electors to sign the voting book after reading a declaration attesting to their eligibility to vote.

When the Poll Clerk has completed these duties, the Deputy Returning Officer may announce the elector's name and their voter number to any scrutineers who are present. This allows the scrutineers to maintain a record of voting activity among their supporters. Where ballots include a stub and counterfoil, the Deputy Returning Officer issues the elector the appropriate type of ballot with the counterfoil attached. The elector then marks their ballot in secret and returns it folded. The Deputy Returning Officer removes the counterfoil and ensures that the sequence number of the counterfoil matches the sequence number on the stub of the last ballot issued. The ballot is then deposited into the ballot box by the elector or the Deputy Returning Officer. In the case of absentee voting, the ballot is inserted into a secrecy envelope and then into a certification envelope prior to inserting into the ballot box. The Poll Clerk completes the transaction by marking the elector as having voted. Jurisdictions have different procedures for accomplishing this goal; some mark an ☒ beside the elector's name in the voting book, and others use a ruler and pencil to strike the elector off the list by drawing a line through their name. At the close of voting, the slot of the ballot box is sealed.

Some jurisdictions have strict rules stating that only one elector may be served through this process at a time. These rules are intended to ensure that all procedures are followed for each and every elector. It would be difficult, for instance, for a Deputy Returning Officer to confirm that the counterfoil matches the stub of the last ballot issued if more than one elector from that polling station was voting simultaneously. Similarly, as the Poll Clerk is not supposed to mark an elector as having voted until the ballot is deposited into the box, they could potentially forget to mark an elector as having voted if they were to begin serving a new elector prior to completion of service to the first elector.

Vote-by-mail

Procedures for vote-by-mail are different because it is a self-administered form of voting. Electors must request vote-by-mail packages from the CEO and/or Returning Officers by a specified deadline. Some jurisdictions check the elector's registration status prior to sending the package to determine whether a registration form should be included in the package. Election officials keep a record of vote-by-mail packages issued, including, but not limited to, the date of application, the name and residential address of the applicant, the counterfoil number of the ballot issued, and the date the package was sent. Because electors self-administer voting, many jurisdictions have developed plain language guides to the vote-by-mail process to assist electors.

Electors mark their ballot, insert their marked ballot into a secrecy envelope, and insert the secrecy envelope into a certification envelope. The certification envelope must be signed by the elector and may need to be witnessed. The certification envelope is then inserted into a return

[26] In B.C. the list of electors is not pre-printed in voting books used for absentee or advance voting; the Poll Clerk is required to enter each elector's name and residential address. At advance voting, an Advance Voting Certificate is also completed for each elector and these certificates are used to mark the voting books used on Voting Day to indicate who voted during the advance period.

mail envelope and must be received by the Returning Officer by a specified deadline, usually before polls close on Voting Day.

In some jurisdictions (e.g., Canada), electors who request a vote-by-mail package are marked off the list included in voting books during advance voting and on Voting Day so that they cannot vote again. These jurisdictions do not allow requests for packages beyond a certain point in the election period to allow time to mark the lists used in voting administration. In B.C., electors who request a vote-by-mail package are not marked off the voting book lists and checks for multiple voting are performed after Voting Day, prior to final count. This means that vote-by-mail packages can be requested in B.C. until 4 hours before the polls close on Voting Day.

Special Circumstances
Local legislation may provide special provisions to ensure that language barriers and disabilities do not impede electors' right to vote. A sample of these special provisions is provided below, although the specifics vary by jurisdiction.

Voters unable to sign
Electors who are unable to sign documentation may make a mark that is initialled by an election official where they would otherwise be required to provide a signature.

Electors needing assistance to mark their ballot
An individual, upon making an oath, may mark another elector's ballot according to their wishes if the elector is unable to mark the ballot. Many jurisdictions provide rigid ballot templates and Braille lists of candidates to allow electors who are blind to vote independently.

Translation
After taking an oath, individuals may be able to make a translation for another elector. Jurisdictions often make key information available in a variety of languages and attempt to hire election officials who speak predominant languages or dialects.

Electors unable to enter a polling place
In cases where an elector arrives at a polling place, but is unable to enter due to a physical disability, the Poll Clerk and Deputy Returning Officer may suspend voting temporarily at their polling station in order to administer voting outside of the polling place.

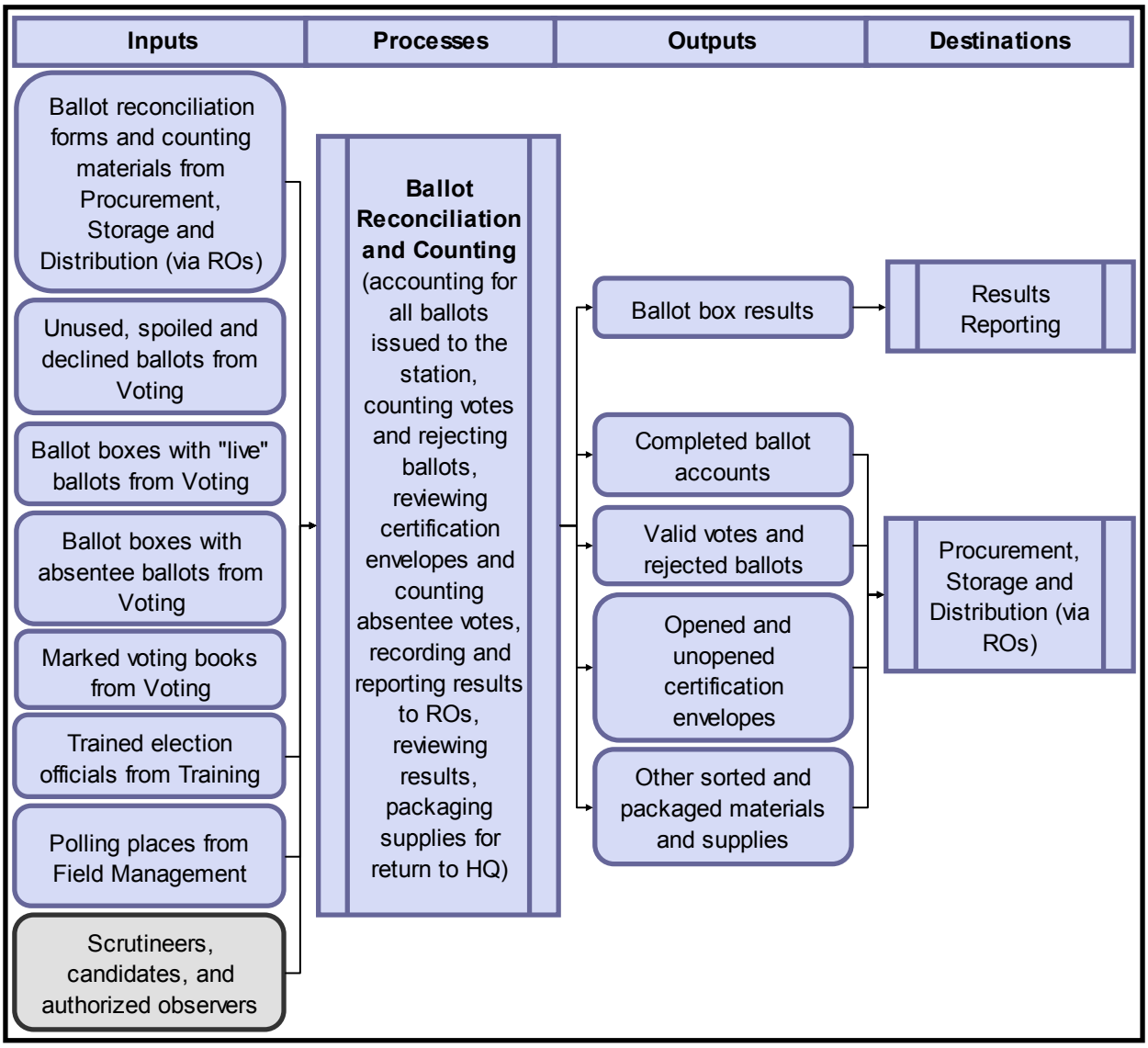
Destinations
Most of the outputs of Voting processes are destined for Ballot Reconciliation and Counting processes. Other voting materials that are not needed for Ballot Reconciliation and Counting processes (e.g., voting screens) are sorted and packaged for return to headquarters via Returning Officers.

8.3.2.2.5 Ballot Reconciliation and Counting

Ballot Reconciliation and Counting processes are concerned with accounting for all of the ballots issued to election officials and determining the results of the election at the ballot box level. The main inputs to Ballot Reconciliation and Counting processes are the used and unused ballots from Voting processes and marked voting books.

Candidates, along with their representatives, may be present during Ballot Reconciliation and Counting processes, subject to local restrictions in terms of numbers. In addition, authorized observers and election officials may be present. Counting may take place at many different locations. In addition to polling places, counting may take place at the agency headquarters, in Returning Officer offices, and in other designated facilities. The locations and times where counting will take place must be announced to candidates and their representatives so that they have an opportunity to observe.

Figure 58 Ballot Reconciliation and Counting - Inputs, Outputs and Destinations



Prior to opening the ballot box to conduct the count, the Deputy Returning Officer must account for all of the ballots that were originally issued to the station. At the conclusion of voting, there are two legitimate places where used ballots could be: 1) spoiled ballots will be in a separate envelope for this purpose; 2) marked and declined ballots will be in the ballot box in equal

number to the number of electors who voted.[27] All ballots must be accounted for prior to opening the ballot box and conducting the count.

Example Ballot Reconciliation

Polling station was issued 400 ballots

At close of voting:
Unused ballots = 89 (these are left in the book of ballots)
Used ballots = 400-89=311

Used ballots can be two places: in the ballot box or in the spoiled ballot envelope.

In the box:
Number of electors who voted = 300 (this is determined by examining the voting book, managed by the Poll Clerk, to see how many electors have been marked as having voted).

Number of spoiled ballots = 11 (these are in an envelope).

Therefore, all 400 ballots issued to the polling station have been accounted for and the ballot box may be opened, the ballots considered, and counted. There will be 300 ballots in the box, one for each elector who voted.

When the Deputy Returning Officer is unable to reconcile the number of ballots issued to the polling station with the number of electors who voted, the Poll Clerk and Deputy Returning Officer must attempt to resolve the discrepancy. The Poll Clerk may begin, for instance, by making sure that an entry has been made in the poll book for every elector who registered with voting. It may be that the Poll Clerk forgot to mark an elector as having voted, but a registration form is evidence that they did. If the discrepancy cannot be resolved, the election officials must discuss the situation with their supervisor and make a note of the circumstances.

After accounting for the ballots, the Deputy Returning Officer opens the ballot box to begin the count. The Deputy Returning Officer considers each ballot to determine whether the intent of the elector can be clearly interpreted from the marking on the ballot (i.e., valid marking) and whether there is an identifying mark on the ballot (e.g., signature or initials). The Deputy Returning Officer then makes a decision either to count the vote or reject the ballot. The Deputy Returning Officer's decision regarding whether to accept or reject a ballot may be challenged by a candidate or scrutineer. In accordance with local rules, the objection is noted on the prescribed form and the ballot is marked as having an objection associated to it, but the decision of the Deputy Returning Officer stands unless it is overturned in a recount. As the Deputy Returning Officer announces a decision regarding each ballot, the Poll Clerk maintains a tally of votes for each candidate in an election and each choice in a referendum. At the conclusion of the count, the ballot box results are totalled, recorded on the prescribed forms, and communicated to the

[27] This write-up assumes that evidence of declined ballots is in the ballot box rather than an envelope outside of the ballot box.

Returning Officer from the polling place. Election officials then package their supplies for return to head office via Returning Officers.

Returning Officers share the ballot box results with headquarters, usually by entering them into a centralized computer system as part of Results Reporting. Following the count, Returning Officers may conduct a validation of the ballot box results initially reported. This is done by comparing the vote tallies recorded on prescribed forms, envelopes, and other documentation to the tallies reported from polling places and recorded in the results computer system. From time to time, the results that were initially reported are adjusted to address reporting errors.

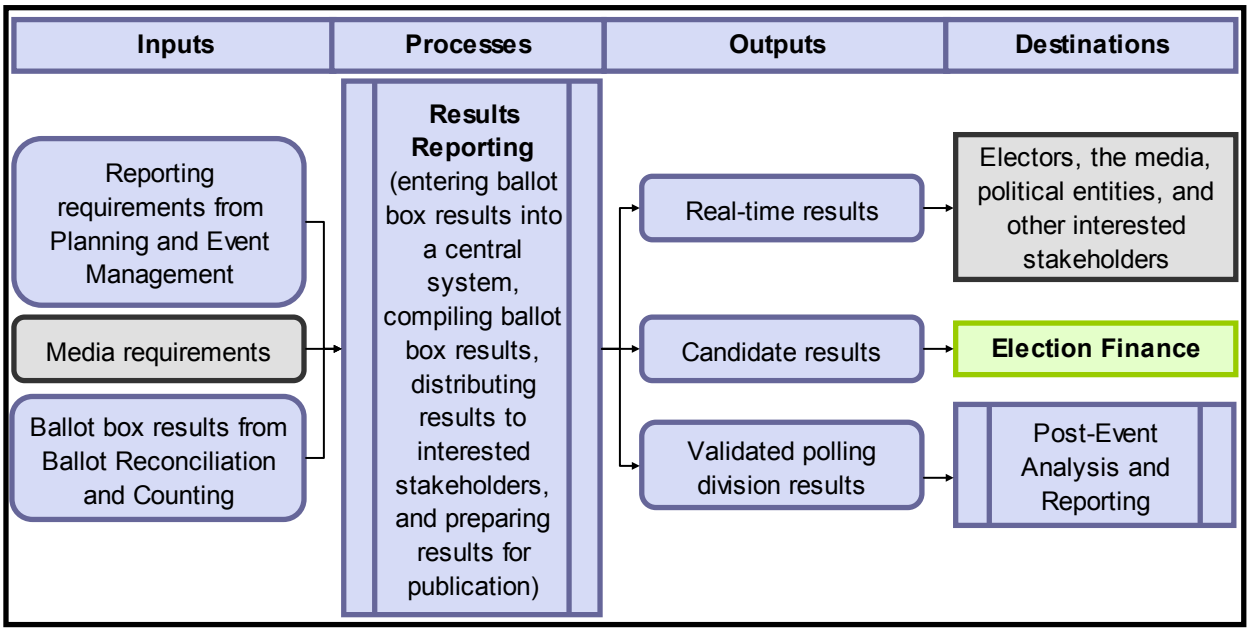
In B.C., "live" ballots from advance voting and Voting Day are counted immediately after voting closes at 8 p.m. (Pacific time) on Voting Day. As these ballots account for approximately 95 percent of all votes, the results of this initial count are a reliable indication of the outcome of the election in all but the closest of races. The final count of absentee ballots takes place after certification envelopes have been redistributed to their "home" electoral districts and have been screened to ensure that electors were registered and to prevent multiple voting. The final count is conducted by Returning Officers and takes place not before 13 days after Voting Day.

Judicial recounts may be required if there is an equality of votes for two or more candidates or if the difference between the votes received by the candidate declared elected and the second candidate is less than a specified fraction of the ballots considered (e.g., 1/500). An elector, candidate or Returning Officer may also apply for a judicial recount under certain conditions specified in local legislation.

8.3.2.2.6 Results Reporting

Results Reporting processes are a very high profile component of event delivery. Particularly on the day or night when the main count of votes occurs, the electoral agency and its operations come under enormous scrutiny from the media and the public. Results Reporting processes collect and compile ballot box results from Returning Officers and distribute consolidated results to key stakeholders in accessible formats. These processes also provide candidate results to **Election Finance** in jurisdictions that reimburse candidate nomination deposits based on performance in the election. Results Reporting processes also prepare polling division level results for the post-event report produced by Post-Event Analysis and Reporting.

Figure 59 Results Reporting - Inputs, Outputs and Destinations



The requirements for Results Reporting processes are established by Planning and Event Management. Results Reporting processes are designed with the primary objective of disseminating timely and accurate event results to interested stakeholders. The media have a mandate and an established infrastructure for getting news to the public and are encouraged to tap into existing reporting processes. In some jurisdictions, different media outlets form a consortium, with one representative of the consortium in each Returning Officer's office during the count. As results are called into the Returning Officer's office from the field and entered into the central system, they are also shared with the media consortium representative who distributes the information to members of the group. As the results are being reported, members of the media often predict the outcome of the election or referendum based on a combination of the margin of difference between the top and second candidate and the proportion of all polls that have reported for a given electoral district.

In the past, electoral agencies tended to report electoral district level results when all polls had reported. With advances in information technology, agencies are increasingly reporting real-time, poll-by-poll results through their event websites. Unlike the media, electoral agencies do not predict the result of an election or referendum while counting is in process.

Results Reporting processes also validate and prepare the polling division level results for post-event reports. Results are merged for small polling divisions to protect the secrecy of the vote. As well, the results for split polling divisions are combined to form a single result for the polling division. As well, all of the results are scrutinized carefully. A markedly different voting pattern in a single polling division may indicate that results were misreported. The agency investigates any potential errors in the results prior to releasing them to Post-Event Analysis and Reporting processes for inclusion in post-event reports.

Destinations
Real-time results, collected while Ballot Reconciliation and Counting processes are occurring, are released to the media and to interested stakeholders through the event website. Validated polling division level results are released to Post-Event Analysis and Reporting processes for inclusion in post-event reports. Candidate election results are provided to the **Election Finance** business area in jurisdictions that reimburse nomination deposits based on performance in the election.

8.3.3 Outputs of **Events** business processes

As illustrated in Figure 41, page 117, the **Events** business area produces a broad range of outputs. Below is a summary of the outputs of the **Events** business area that become inputs to other business areas or that leave the agency for external stakeholders. Those **Events** outputs that become inputs to other **Events** processes are not listed below.

8.3.3.1 Polling division assignments to polling places for **Electoral Geography**

The assignment of polling divisions to polling places becomes an input to **Electoral Geography** where it is used in the creation of where-to-vote maps.

8.3.3.2 Address, boundary, settlement and other local information for **Electoral Geography**

As part of Field Reconnaissance processes, Returning Officers provide information about local geography and new building to **Electoral Geography** (e.g., subdivisions, condominiums, schools, long-term care facilities, changes to the road network, etc.).

8.3.3.3 Confirmed field office and polling place addresses for **Electoral Geography**

As Returning Officers identify the location of their field offices and their polling places, the addresses are provided to **Electoral Geography** so that they can be identified as such in the address register and represented on paper and electronic maps.

8.3.3.4 Returned Where to Vote Cards and other undeliverable mail for **Electors**

Electoral agencies use mail returned as undeliverable (e.g., returned Where to Vote cards), as a source of information for updating the register of electors.

8.3.3.5 Registration information for **Electors**

Elector-sourced registration information that is collected as part of an enumeration, election or referendum event is an input to **Electors** business processes. This registration information comes mainly in the form of hard-copy registration forms completed with the assistance of enumerators or election officials but, depending on the approach to enumeration, may also include verbal information received by telephone, electronic data received through online registration systems, and/or electronic information captured in the field by Returning Officer staff.

8.3.3.6 Elector participation data for **Electors**

Elector participation data from **Events** is case-level event participation information for each elector. For instance, if an elector voted, a voted "flag" could be set on the elector's record for that event. The information is derived from a review of voting documentation and is produced in electronic format by the **Events** business area. It is provided to the **Electors** business area for storage in the register of electors and for reporting.

8.3.3.7 Candidate election results for **Election Finance**

Candidate election results are provided to **Election Finance** in jurisdictions that reimburse nomination deposits based on performance in the election.

8.3.3.8 Signed leases for facility owners/managers

Leases with owners and managers of facilities used for field offices and polling places are an output of Field Management processes in the **Events** business area.

8.3.3.9 Recruitment advertisements for potential employees and contractors

Recruitment advertisements are run by Recruitment and Assessment processes in the **Events** business area to fill election official, head-office and contractor positions.

8.3.3.10 Offers of employment to employees and signed contracts for contractors

Offers of employment are made to selected applicants as part of Recruitment and Assessment processes. Contracts are signed with various suppliers of goods and services.

8.3.3.11 Compensation for employees and contractors

Employees, including election officials, temporary workers, and contractors hired to assist with event delivery, are paid as part of **Event** business processes.

8.3.3.12 Terminations of employment and contracts for employees and contractors

The agency notifies employees and contractors when their work assignment is complete and they are then paid any money owing.

8.3.3.13 Records of Employment

Event employees are issued Records of Employment by Payroll/Accounts Payable processes in the **Events** business area within five calendar days after employment terminates.

8.3.3.14 Mailed notifications to targeted electors and/or households

Notifications may be mailed to electors and/or households in order to raise awareness about certain key messages (e.g., where to vote).

8.3.3.15 Various communications products for the media, electors, political entities and other interested stakeholders

During an event, the agency may produce a variety of communications products to reach different stakeholder groups, including, but not limited to: T.V., radio and print advertisements, news releases, backgrounders, media advisories, the event website, videos, and pictures.

8.3.3.16 Call centre for the public

Many agencies establish a call centre in the lead up to the event to respond to the high volume of inquiries from members of the public regarding the event.

8.3.3.17 Post-event reports for the Speaker, the public, and the media

Chief Electoral Officers are required to report on events to the legislative assembly or parliament through the Speaker. One or more reports that detail the proceedings, results and costs of the event, as well as recommendations for legislative change may be required.

8.3.3.18 Election and referendum results for electors, the media, political entities and other interested stakeholders

Electoral agencies release the results of the election or referendum in accessible formats to various stakeholders.

8.4 Events and the Business Cycle

Activity levels tend to be highest in the **Event** business area during the pre-event and event phases. Planning and Event Management processes are an exception because they maintain a moderate to high level of business activity throughout the business cycle. Because of the relatively high number of business processes in the **Events** business area, the variation in the level of activity across the four business cycle phases is illustrated below using a table instead of a graph.

Table 5 Variation in Level of Effort Through the Business Cycle, By Event Business Process

Process Name	Pre-Event	Event	Post-Event	Inter-Event
EVENT MANAGEMENT PROCESSES				
Planning and Event Management	High-mgt	High-mgt	Moderate-mgt	High-plan
Field Reconnaissance	High	Moderate	-	-
Field Site Management	Moderate	High	-	-
Recruitment & Assessment	Moderate	High	Moderate	Low-ROs
Training	Moderate	High	-	Low-ROs
Payroll/Accounts Payable	Low	High	-	-
Mailed Notifications	High	High	-	-
Advertising & Communications	Moderate	High	-	-
Forms & Guides Development	High	Low	-	Moderate
Procurem't, Storage & Distribut'n	High	High	Moderate	-
Post-Event Analysis & Reporting	Low	Low	High	-
GENERAL ELECTIONS, BY-ELECTIONS, REFERENDA				
Polling Division Assignment	High	Low	-	-
Candidate Ballot Production	-	High	-	-
Registration with Voting	-	High	-	-
Voting	-	High	-	-
Ballot Reconciliation & Counting	-	High	-	-
Results Reporting	-	High	Moderate	-

8.4.1 Pre-event phase

During the pre-event phase, many of the Event Management processes experience moderate to high activity levels. Planning and Event Management processes monitor implementation of the plan during this phase. Mailed notifications related to an enumeration are sent, and these mailings are supported by Advertising and Communications campaigns, which encourage electors to register. Returning Officers, Assistant Returning Officers, and staff of Returning Officers are recruited and trained. Based on information from Field Reconnaissance processes

about potential polling places, polling divisions are assigned to polling places. Forms and Guides Development activity is also high during this phase so that forms and guides are printed and ready for distribution to field offices in time for the start of the event phase.

8.4.2 Event phase

With few exceptions, activity levels in **Events** business processes are high during the event phase. Advertising and Communications processes are busy fielding electors' questions through the call centre and managing the advertising campaign to encourage elector participation in voting. Field offices are established, election officials are recruited, and Where to Vote notices are mailed. This is also the phase when all voting, registration with voting, ballot reconciliation and counting, and reporting of results to the media and public takes place.

8.4.3 Post-event phase

During the post-even phase, Procurement, Storage, and Distribution processes remain at a moderate level of activity as supplies are returned to head office, sorted, stored and disposed of, as appropriate. Recruitment and Assessment processes prepare performance assessments for selected event worker roles (e.g., Returning Officers). This is the phase when activity levels in Post-Event Analysis and Reporting processes peak, as information is collected from various stakeholder groups to support the identification of lessons learned and post-event reports are produced.

8.4.4 Inter-event phase

The inter-event phase is the time when lessons learned from Post-Event Analysis and Reporting processes, along with amendments to legislation, are considered and developed into revised policies, procedures, and requirements for the next event. All of this work is encapsulated in the form of an event plan. Work in the area of Forms and Guides Development begins to increase in activity toward the middle of the inter-event phase. Depending on local legislation, agencies will recruit and/or re-appoint Returning Officers at different points during this phase and may conduct Returning Officer training.

8.5 Relationship of Events to Other Business Areas

Figure 41on page 117 provides a high-level view of how the **Events** business area relates to the other business areas within the organization. Inputs and outputs are exchanged directly between events and all business areas.

The **Electors** and **Electoral Geography** business areas have the most interaction with the **Events** business area. The **Electors** business area provides lists of electors and voting books, as well as mailing lists and information about polling division splits to the **Events** business area. In return, the **Events** business area provides **Electors** with registration information from elections, referenda, and enumerations, participation data from elections and referenda, and undeliverable mail. **Electoral Geography** receives boundary, settlement and field office location information from **Events**, and provides the number of polling divisions, household mailing lists, maps and other geography products to support event administration.

The **Political Entities** business area provides the list of candidates, ballot names and notification of any candidate withdrawal to **Event** processes. This information is used in planning, as a

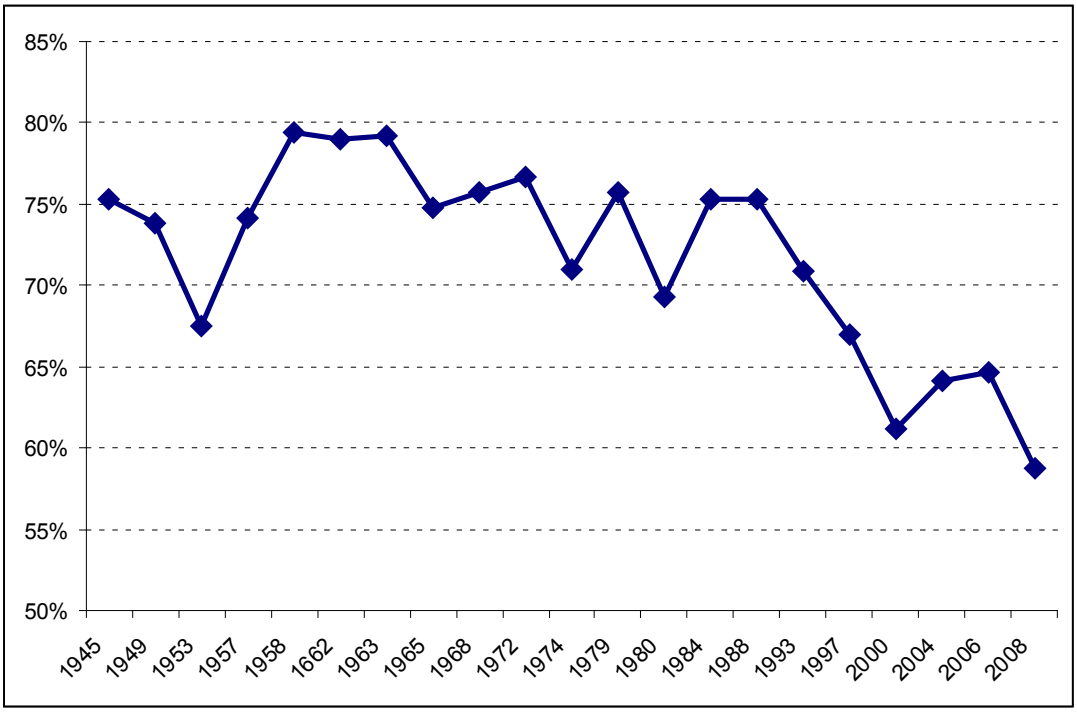
parameter in distribution formulas, advertising and communications, and in the production of candidate ballots.

8.6 Current Issues Affecting Events Business Area

8.6.1 Declining elector turnout

In both emerging and mature democracies, elector turnout has been declining in recent years, particularly among youth. About three-quarters of registered electors voted in Canadian federal elections during the period from the Second World War to 1988, after which elector turnout began a steady decline to a low of 58.8 percent in 2008. The same pattern is observed worldwide; elector turnout data for 214 countries shows a drop in turnout from an average of 74.8 percent between 1976 and 1990, to 69.7 percent between 1990 and 2006. [28] The youngest electors have the lowest rates of voting. In the 2004 federal election in Canada, less than 40 percent of eligible youth aged 18 to 24 voted.[29]

Figure 60 Voter Turnout at Canadian Federal Elections, 1945 to 2008



Source: *Voter Turnout at Federal Elections and Referendums, 1867 to 2008*. Available on Elections Canada's website at http://www.elections.ca

[28] Ellis, Andrew, Maria Gratschew, Jon H. Pammet, and Erin Thiessen (2006). *Engaging the Electorate: Initiatives to Promote Voter Turnout from Around the World.* International Institute for Democracy and Electoral Assistance, Stockholm, Sweden.

[29] Elections Canada (2005). *Estimation of Voter Turnout by Age Group at the 38th Federal General Election (June 28, 2004)*. Available on Elections Canada's website at www.elections.ca

The act of voting is a fundamental part of the system of representative democracy used in Canada. Those who govern receive their mandate through elections and are held accountable to the electorate with each election. With elector participation dropping, there are concerns that the long-term legitimacy of Canada's democratic system will be undermined.

Not all Canadian jurisdictions have been impacted to the same degree by declining turnout. Prince Edward Island is often cited as an example of a jurisdiction that is sustaining relatively high levels of turnout. In 2007, 83.8 percent of registered electors voted and in 2003, when Voting Day fell just one day after Hurricane Juan struck the island, turnout remained relatively high, at 83.3 percent.[30]

8.6.2 Changing role of electoral agencies with respect to elector education

Declining elector turnout has prompted debate within the electoral community about the evolving role of electoral agencies in elector education. Legislation gives electoral agencies a clear mandate to educate electors in the mechanics of how to register and vote and to encourage their participation in the electoral process. In Nunavut, the electoral agency has a relatively broad mandate to "make the electoral process better known to the public." Given declining participation, many electoral agencies are exploring whether an expanded education mandate might be more appropriate for them; one that includes educating electors on the broader topics of the electoral process, citizenship and democracy, in the hopes of ultimately encouraging elector participation. Chief Electoral Officers are also exploring their role vis-à-vis organizations such as Student Vote that are working to encourage under-age youth participation in parallel elections.

8.6.3 Expanded advance voting opportunities and voter turnout

While the current trend is to expand advance voting opportunities to improve accessibility and ultimately turnout, the evidence suggests that the impact will be modest, at best. Elections Canada studied the relationship between the provision of advance, postal and proxy voting, and the provision of two consecutive days of voting, and found that while they are associated positively with turnout, the correlations are not robust. Electors who vote advance in Canada are typically older and more engaged with politics and political parties than non-voters and electors who vote on Voting Day. To some degree, the provision of more advance voting opportunities may simply be providing more choice to electors who would have voted anyway.[31]

8.6.4 Access for all electors

Electoral agencies strive to make the electoral process accessible to all electors. Challenges that electoral agencies are dealing with in this regard include communicating with populations with varying literacy and language abilities and serving those with physical or mental disabilities.

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[30] Elections Prince Edward Island (2007). Statistics on General Elections from 1966 to 2007. Retrieved September 10, 2009 from Elections Prince Edward Island website: http://www.electionspei.ca/provincial/historical/ceoreports/turnout/turnout.pdf

[31] Blais, Andre, Agnieszka, Dobrzynska and Peter Loewen (2007). Potential Impacts of Extended Advance Voting on Voter Turnout. Prepared for Elections Canada. Retrieved November 9, 2009 from Elections Canada website: http://www.elections.ca/loi/res/Potential_Impacts_e.pdf

Currently, about 48 percent of the adult population in Canada is considered by the Canadian Council on Learning to have literacy skills below the internationally-accepted standard to cope in modern society.[32] Further, literacy rates are not expected to improve by 2031, as the number of senior citizens with low literacy skills is projected to double, the number of immigrants with low literacy skills is expected to increase by 61 percent, and the number of young adults with low literacy will remain approximately constant. Electoral agencies are meeting the literacy challenge with increased use of plain language and pictographs and by making audio versions of printed materials available online through services such as VoicePrint.

Electoral agencies already have in place a number of innovations (see list below) to support electors with disabilities to vote privately and independently.

- audio versions of communications materials available online;
- rigid plastic templates to hold ballots in place for independent marking by electors with visual impairments;
- large-print, poster-sized images of ballots in polling places;
- large posters with candidate photos available at polling places;
- Braille lists of candidates and referendum questions available at polling places;
- special training for election officials serving electors with disabilities; and
- voting opportunities that do not require attendance at a polling place, such as vote-by-mail.

8.6.5 Project management and continuous improvement

During the last five years, electoral agencies have started to embrace formal project management practices to a greater extent. Project management techniques are appropriate for use in the planning and management of electoral events because each event is different from the last and they are temporary undertakings, with a definite beginning and end. Due to their vast scope, electoral events can be thought of as a portfolio of projects. For example, the development of an intranet site to support Returning Officers might be thought of as a project that fits within a larger portfolio of projects that together define the event.

One of the greatest advantages of formal project management is that event planning and delivery are overseen by a project team, comprised of members from different functional units within the electoral agency. Bringing these individuals together promotes collaboration across functional units and a broader understanding of the business. A second advantage is that the planning process is designed to ensure that lessons learned from previous events are incorporated into the planning of the next event so that continuous improvement in electoral administration is achieved.

8.6.6 Elector identification

Recent amendments to legislation at the federal level and in B.C. require electors to prove both their identity and their residential address at the time of voting. In Ontario and Québec, electors must prove their identity prior to voting. The trend toward requiring electors to show

[32] Canadian Council on Learning (2008). Reading the Future: Planning to Meet Canada's Future Literacy Needs. Available online at www.ccl-cca.ca

identification documents raises access concerns, particularly for some groups in society that may have relatively poor access to identification documents (students, people residing in long-term care facilities, people without a home, people in acute care hospitals, and incarcerated individuals). The requirement to show proof of residential address is especially challenging for students living in residence who may have documents showing a mailing address, but no residential address, and those without a fixed address. The requirement for proof of identity can also be challenging in rural environments where people are known to one another and may become insulted or annoyed if asked to prove their identity.

To minimize the number of electors disfranchised because of a failure to provide the required identification documents, Chief Electoral Officers have used advertising campaigns to inform electors of the requirements and acceptable forms of identification. Many CEOs have also endorsed the use of a Letter of Attestation that may be signed by institutional administrators to certify that the named individuals reside at the institution. These letters may also be used in other situations where individuals live in communal environments with relatively poor access to identification documents, such as student residences, First Nations reserves, shelters, correctional facilities, and light houses.

8.6.7 Availability of field facilities

Depending on economic conditions, it can be very challenging to find suitable field facilities available for lease within the constraints of the Tariff of Fees. Some agencies have used professional property managers to identify suitable office space for Returning Officers and to negotiate leases. It is important that Returning Officers are involved in the final selection of their office space.

Another challenge to securing office space and polling facilities is that the date of the event is often unknown. As such, it is difficult for electoral agencies to know when to begin to rent space and how long the space will be required. This is an area where the combination of a majority government and fixed election dates can result in substantial savings to the event budget.

8.6.8 Political appointments of Returning Officers

Returning Officers are appointed by the Governor or Lieutenant Governor in Council in six Canadian jurisdictions (Alberta, Ontario, New Brunswick, Nova Scotia, Prince Edward Island, and Newfoundland and Labrador). Chief Electoral Officers select and appoint Returning Officers in all other jurisdictions in Canada. Given the importance of ensuring that every aspect of electoral operations is transparent and independent of political influence, Chief Electoral Officers in Canada strongly support the selection of Returning Officers through competitive processes. Some agencies, such as Alberta, have issued guidelines for the selection of Returning Officers in an effort to raise awareness among those with the authority to recommend Returning Officers of the legislated requirements of the position and the attributes considered to be desirable.

8.6.9 Cross appointments for Returning Officers

In many jurisdictions, there is overlap between the individuals who work as Returning Officers at the federal level and the provincial or territorial levels. While individuals with cross-appointments bring valuable experience to both of the agencies that they serve, they also represent a potential risk should both jurisdictions have simultaneous elections. It is not

desirable for an individual to perform the duties of a Returning Officer in two jurisdictions simultaneously. With minority governments at the federal level, it is more difficult to predict when events will occur simultaneously. Some jurisdictions have addressed this risk through hiring policies that permit only one of either the Returning Officer or the Assistant Returning Officer from a given electoral district to hold a similar appointment with another agency.

8.6.10 Managing a dispersed workforce

Events, by their nature, are delivered in the field by a large temporary workforce. Many of the individuals on the "front lines" are never seen by headquarters staff. Some may even be operating in different time zones from headquarters and from other regional staff in the jurisdiction. With every election, there is a mix of new and experienced Returning Officers who are often separated by large distances from one another during event delivery. Managing under these circumstances is a challenge that every electoral agency shares.

Information technology is helping to enhance the flow of communication between headquarters and field offices. Most jurisdictions have the capability to communicate via email with field offices. Some have also developed intranet sites that accommodate messaging, task reminders, progress reporting and document distribution. Many of the day-to-day communications can be dealt with through the intranet, saving the phone for more complicated situations that need to be discussed.

Electoral agencies have high expectations of Returning Officers; they are expected to stay on top of all issues surrounding delivery of the event in their own electoral district and to be prepared to report to headquarters, as required. The pace of event delivery can be very fast and each event presents new challenges and situations that can be stressful to a Returning Officer and their staff. It is important that the management and communications systems that are devised leave field staff feeling valued and supported by headquarters.

8.6.11 Election official training

Election official training is a critical part of event delivery and an area that is the focus of constant improvement efforts. The rules of an election are, to a great extent, prescribed by legislation. When election officials fail to follow procedures, they are likely to break a law and this may have the consequence of disfranchising electors. For example, if election officials fail to obtain an elector's signature on a certification envelope, the envelope may have to remain unopened due to election official error. Most people are not accustomed to working in such a rule-bound atmosphere and may not immediately appreciate the paramount important of following procedures to the letter.

The dilemma of training is that, in a limited time, individuals need to learn to perform sometimes complex procedures to a very high quality standard. Most will perform these procedures during a single day of work, so there is little opportunity for on-the-job learning. The consequence of a failure to perform the procedures accurately may be disfranchisement of electors, which is not acceptable. Electoral agencies have worked with educators to identify the training approaches that are best-suited to teaching different types of skills. Most agencies use a combination of approaches to address a variety of learning outcomes and to appeal to different learning styles, such as on-line modules, videos, hands-on assignments, role-play, lecture, etc. Another strategy is to focus on teaching election officials the procedures they will follow with 95 percent of the

electors they serve and to train another official (e.g., supervisor) in how to deal with less common situations (e.g., electors requiring assistance to mark a ballot, visually impaired electors, electors requiring translation, etc.).

8.6.12 Potential changes to elector flow

The traditional staffing model used by Canadian jurisdictions and required by legislation, is to have two election officials assigned to serve electors from each polling division. As Canada's population has grown over time, so has the number of polling divisions and required teams of election officials. This, in turn, has driven up the cost of election delivery. Requirements for electors to vote at their assigned polling division also contribute to service inefficiency. At certain times of the day, there may be more officials than electors in a polling place, and often there are line-ups at some polling stations, while officials at other stations wait for electors. A number of jurisdictions are considering new approaches to administering voting based on the "bank teller" model that has been successfully implemented in New Brunswick at the municipal level. Rather than going to their assigned polling division, electors would simply go to the next available polling station, thereby allowing for reduced staffing and a more efficient overall process. In addition to improving elector service, this model has the potential to save staffing costs (the primary cost driver in elections) significantly. New Brunswick realized staffing cost savings of 33 percent when it introduced this approach.

8.7 Events During the Next Ten Years

8.7.1 Online training (web seminars)

Web-based or online training may become an increasingly standard part of election official and Returning Officer training. A web-based seminar can be viewed at the convenience of the trainee. While web seminars do not offer the personal connection benefits of in-person seminars, they improve accessibility while reducing time and effort on the part of electoral agencies. They are most likely to be used as a means of providing background information for election officials prior to an in-person session, for reinforcing learning that has taken place, as an on-going reference source, and/or for evaluation purposes.

8.7.2 Application of technology to voting and counting

Canadian elections have been administered by manual, paper-based processes for over one hundred years. While these processes are fit for the purpose they serve, there are mounting pressures from the electorate and political entities to keep pace with the changes of modern society. People from all segments of society are turning to the web for answers to their questions, to do their banking, and their shopping; voting via the Internet would seem a logical next step. Given technological advances, there are also calls from some groups for automation in polling places, from electronic voting systems, to systems that facilitate other stages of the voting process, such as voter authentication, voter strike-off, the marking of a ballot, and vote tabulation.

The four areas where technology is most likely to be applied to electoral administration over the next ten years include:

1. Internet voting: the use of the Internet to transmit and record votes. Internet Voting is seen by many as a way to improve the accessibility of voting and to increase voter turnout, particularly among the youth.
2. Automatic strike-off: electronic access to real-time registration and participation information at voting locations. This innovation would permit screening for multiple voting and registration at any polling place and would thereby open the doors to a "vote anywhere" model that would not require a delayed count.
3. Electronic voting: the use of electronic voting machines to record votes. Electronic voting machines would allow people with disabilities to mark their ballots independently, would make it easier to provide out-of-district electors with ballots for their home electoral district, and to provide ballots in a variety of languages. Electronic voting machines may store electronic ballots and tabulate voting data, or produce a physical ballot to be counted manually, stored for audit purposes, and/or scanned and counted by another machine.
4. Electronic counting: the use of technology to determine the outcome of an election based on electronic data from one or more of the following sources: Internet voting, electronic voting machines, or scanning of computer generated or hand marked ballots.

The Chief Electoral Officers in Canada have formed the E-Voting Working Group to examine both the opportunities and challenges that technology presents to electoral administration. The objective of the group is to collaborate on the establishment of common e-voting standards and messages that participant jurisdictions can reference when addressing e-voting challenges in their own jurisdictions. Elections Canada has indicated that it intends to pilot Internet voting during a by-election in the year 2013.

The working group has started by documenting the set of core principles that are essential aspects of protecting the integrity of the electoral process. These principles are conditions that must be addressed by any existing or new approach to voting processes. Below is a list of the draft principles identified by the Chief Electoral Officers as of November, 2009.

- **Auditability**: An audit trail must exist to facilitate recounts and general transparency.
- **Authentication**: There must be a method of confirming the identity of all voters.
- **Open Source**: Any technology in use must be open source, to ensure that the electoral agency and all stakeholders can read any code in use.
- **Privacy**: All ballots must be marked in private and remain secret throughout the voting process.
- **Reliability**: The voting method must be dependable, and provisions must be made to ensure its continuity in the face of unforeseen circumstances.
- **Transparency**: Detailed information on the technology and any related processes must be widely available and accessible to stakeholders.

These fundamental principles of an electoral information system present a host of challenges to the development of electronic solutions. Taking the example of Internet voting, the following is

a list of some of the questions that arise when one considers the principles vis-à-vis the current capabilities of technology.

- How can an elector be sure that the vote they entered and transmitted via the Internet is the vote that was recorded and tabulated?
- How can electors be sure that the system severed their vote from their identity in a manner that the two cannot be reconnected?
- How can an electoral agency authenticate an elector via the Internet?
- How can an electoral agency be sure that the elector is not being coerced into voting in a particular way when they vote via the Internet?
- How can an electoral agency depend on a system of vote transmission that may be subject to capacity issues, violations, and other issues beyond the control of the agency?

The application of technology to the electoral process will introduce risk to some of the principles that are essential aspects of the electoral process. However, some degree of risk may be acceptable when balanced against other objectives, such as improved accessibility and turnout. Vote-by-mail is an example of a "remote" voting opportunity that, like Internet voting, poses potential risks in the areas of secrecy and reliability. Nonetheless, many jurisdictions offer it as a means of making voting accessible to groups of society that are not able to attend other voting opportunities (e.g., out-of-town, residing in a remote area, injured, or sick).

A full-scale implementation of automatic and real-time elector registration and strike-off at the polls would require access to high-speed Internet at all places used for voting, or a back-up methodology for regions of the jurisdiction not supported by high-speed Internet. It would also entail significant investment in computer hardware for all polling places. This is a potential area where jurisdictions could pool resources to purchase hardware and/or to develop software required to support these processes.

9.0 CONSIDERATIONS FOR INFORMATION TECHNOLOGY PLANNING

9.1 Introduction

Like most other businesses, electoral agencies rely on computer applications and computer infrastructure to support their operations. However, several aspects of the business of electoral administration are unique among business models and place distinct challenges on technical solutions. This section explores those challenges and the technical principles that should guide the development of electoral information systems to ensure that they can be relied upon to deliver when required.

It should be noted that the purpose of this section is not to define technical solutions for the business of electoral administration. This aspect will be covered in an update to the Electoral System Reference Model (ESRM), a companion document to the EMRM that focuses on defining an optimal electoral information system and technical environment for serving the distinct business requirements of electoral administration. The Conference of Canadian Election Officials' Technology Committee will direct the work to be done on the ESRM so that it aligns with the business as defined by the EMRM and the Common Data Model.

9.2 Business Characteristics that Influence Technology

Several characteristics of electoral administration set it apart from most other businesses in terms of the technical requirements. These particular characteristics and the technical principles that flow from them must be considered when developing electoral information systems.

Relatively long business cycles with uncertainty regarding their exact length
The typical business cycle of an electoral agency is approximately four years in duration. For some jurisdictions, the length of the business cycle is set by legislation that defines fixed election dates. For others, the business cycle is likely to be between three and five years. In minority government situations, the length of the business cycle is uncertain. Electoral agencies generally expect to use their computer applications for at least two business cycles or approximately eight to ten years. Technology plans must consider the business cycle, however, due to uncertainty about business cycle length and the possibility of on-demand events, technology plans should not necessarily be tied to the business cycle.

Extreme spikes in the scale of activity at certain points in the business cycle
Electoral agencies must have the ability to expand their capacity cost-effectively and on short notice. At certain points in the business cycle, electoral agencies expand beyond their steady-state size along several dimensions and then contract again within a short period of time. For instance, during the event phase, an agency such as Elections BC, may expand its labour force from 50 to over 30,000 staff to deliver Voting Day services. The volume of elector registration and other computer transactions also scales up markedly during the pre-event and event phases. Agencies will expand the geographic scale of their services by establishing temporary field offices throughout the jurisdiction to provide a relatively consistent level of electoral services to all areas.

Firm, legislated deadlines that must be adhered to
There is zero tolerance for slippage in certain deadlines that are defined by electoral law. For instance, legislation defines the closing date for general registration and when the revised list needs to be available for voting. Systems need to be designed with performance standards that meet the requirements specified by legislation.

Changing legislation, policies, and procedures
As lessons are learned from administering each event, Chief Electoral Officers make recommendations for legislative change, and policies and procedures are adjusted to improve service to electors, candidates, and political parties. Given that electoral information systems are expected to last a minimum of two business cycles, the choice of systems should allow for easy enhancement where possible. This also allows for rapid response to legislative changes passed close to the delivery of an event.

Low tolerance for failure
Certain functions of an electoral information system have a very high profile and the tolerance for failure in those areas is low. For example, on election night, political entities and electors from across the jurisdiction look to the agency for accurate and timely results information. While these system functions may be used infrequently, they must work as designed, delivering correct results when and where required.

9.3 Technical Principles

This section reviews the technical principles that reflect the distinctive business characteristics discussed above. These technical principles are intended to guide decision-making around the requirements for computing systems for electoral administration.

9.3.1 Performance – *gets the job done in the required time*

An electoral information system must be designed to meet the performance requirements of the agency throughout the business cycle. With the exception of **Election Finance**, peak transaction volumes occur in all business areas during the event phase of the business cycle, which is typically 28 to 35 days. Significant transaction volumes are also seen during the pre- and post-event phases for the **Electors**, **Electoral Geography, Election Finance,** and **Events** business areas. To a large extent, the time available for processing during the event phase is driven by legislated deadlines defined by a jurisdiction's election calendar. Electoral information systems must be designed to meet performance standards and to process anticipated peak transaction volumes within the time constraints.

9.3.2 Scalable – *grows and shrinks to control on-going costs*

The technical infrastructure underlying electoral information systems must have the ability to scale up and down to meet performance demands at different points in the business cycle without the requirement to change the systems beyond equipment uplift. The business of delivering elections is unique in terms of the extent of variation throughout the business cycle in the volume of transactions, the nature of transactions, and the degree of deployment of the system to the field. In order to be cost-effective throughout the business cycle, electoral information systems must be designed to scale up and down rapidly and efficiently along three dimensions:

- Transaction volume – systems must be designed to scale up during the event phase to process anticipated peak transaction volumes in accordance with performance standards without requiring changes to application code. To save resources, the system should scale down again during periods of the business cycle characterized by lower overall transaction volumes and batch processing.
- Nature of transactions – systems should efficiently deal with changes in the nature of transactions that occur throughout the business cycle. For instance, the event and pre-event phases in B.C. are associated with heavy online transaction processing, while the post- and inter-event phases focus more on batch processing.
- Worksite locations – systems must also be designed to accommodate field offices that are set up throughout the jurisdiction for the event period. The design must consider the number of computers, the network capabilities needed to establish and connect offices, and appropriate backup or standby systems to maintain availability. In the future, systems may also be extended to polling places and other field locations.

9.3.3 Logistics – *deploys quickly and effectively*

To a large extent, elections are delivered in the field by Returning Officers, their staff, and election officials. Most agencies supply Returning Officers with computers and require field staff to access and display and/or input information to electoral information systems. For example, Returning Officers and their staff may input elector registrations and updates, polling place locations, candidate nominations, election night results, etc., and they may produce operational reports from electoral information systems.

Agencies use different models to deploy computer systems to the field. Some use a fully distributed model with the code installed and data managed on local computers with updates provided to a central host system on a scheduled basis. Others have field offices access the central host system through desktop computers acting as thin client terminals, and yet others do something in between. Each approach has advantages and disadvantages. It is important that the model chosen is suited to deliver the requirements of the jurisdiction in terms of the computing functions deployed to field staff and constraints in terms of time and dollar costs for field office equipment acquisition, configuration, shipping, set up, network connection, operations, and field staff support.

In many cases, the precise timing of an event is unknown and electoral agencies must establish field offices on a very tight time frame. The electoral computing environment must be built from tools and components that are readily sourced in the jurisdiction and easy to assemble, maintain, and operate (e.g., desktop computers and servers with standard operating systems). Likewise, the networks that connect computers must be able to carry the appropriate volume of data and have the potential to be implemented on short notice.

Many jurisdictions consist of a mix of densely populated urban areas and large, sparsely populated, rural areas, with varying infrastructure, particularly telecommunications capacity. The technical solution does not need to be the same for all areas of the jurisdiction. For example, remote regions may have to telephone information to a central data capture hub due to connectivity constraints, while other offices may be connected directly to central computers over a wide-area computer network.

9.3.4 Secure and Private – *limits access to those with permission*

Electoral information systems must be secure from inappropriate access and tampering to ensure the privacy of personal information. The technology should be designed with security and privacy present in all components of the technical and application architecture. Authorization services are required so that access to personal information and other confidential data is appropriately restricted. For example, the technology should prevent unauthorized access to electoral data by preventing unauthorized access to specific modules within the applications, encrypting traffic over the network, restricting which computers can access data, and preventing the theft of data from remote computers. Digital lists of electors should be zipped and encrypted before they are written to CDs and DVDs and distribution of these portable media should be via secure, government-approved couriers or hand-delivery to authorized recipients. Electronic distribution should follow similar zipping and encryption techniques.

9.3.5 Longevity – *designed with adaptability and maintainability in mind*

Because of the significant investment of both dollars and staff time associated with developing electoral information systems, electoral agencies generally expect systems to last for a minimum of two business cycles, with additional time to allow for a transition from the current technical environment to its successor.[33] This implies that electoral information systems should be built using tools and techniques that provide for cost- and time-efficient maintenance, operation, and enhancement.

The agency's technology environment should be able to accommodate changes in policy, legislation, and technologies with minimal effort and maximum re-use of components. An electoral information system should be designed to allow for business logic changes to be made with minimal impact on the electoral information system data structures and computer screen layouts. This can be accomplished by consolidating common logic processes. As an example, elector update and registration functions may both require similar electoral geography logic to place an elector in a particular electoral district. Rather than developing geographic logic in both processes, it should be implemented as a common process.

One of the unique and valuable investments in the electoral information system software is the business rules. The development of business rules takes a significant amount of staff time and because of the distinct nature of the business, the rules are not easily replaced with non-election business rule sets. To enhance the maintainability of business rules and other code over time, agencies should ensure that the code is well-documented and commented, meaningful, and intuitive.

Electoral agencies should avoid computer languages, tools, and products that have a relatively narrow supplier and customer base, which could leave the agency with fewer supply options and an uncertain future in terms of support. Where possible, the computer language, application development, and runtime environment products should be based on well-established, formal standards (e.g., SQL, C++, HTML, etc.) or de-facto standards (e.g., .NET, Oracle databases, etc.)

[33] Electoral agencies should expect an electoral information system to be operational for approximately 10 years. For systems shared by two or more jurisdictions, this time period may be extended to 15 years due to staggered business cycles and a longer period of time for transition.

that are widely used and supported by vendors in the jurisdiction. The use of well-established computer products, based on actual or de-facto standards:

- increases the agency's options for finding products that are competitively evolved, priced, and available over the long term
- ensures access to a broad pool of technical resources skilled in the use of the products
- eases transition when the technical resources supporting the electoral information system change over the system's life-span
- reduces the long-term costs of support as technical resources spend less time learning standard products and more time contributing efficiently to the system's operation, maintenance, and adaptation
- allows for ease of sharing applications among jurisdictions.

9.3.6 Reliable – *gets the job done right*

Electoral information systems *simply must work correctly.* They are mission-critical to the successful delivery of an electoral event. Agencies must be able to trust electoral information systems to interpret and process data in a manner consistent with defined business rules.

9.3.7 Available – *accessible when needed*

During non-event phases, some scheduled system downtime can be tolerated; however, during events, system availability requirements may be close to 100 percent 18 hours-a-day, seven days-a-week. To achieve this standard of availability on mission critical functions, backup or standby systems must be in place to process transactions redirected from the primary system in the event that the primary system is temporarily unavailable.

9.3.8 Interoperable – *exchanges information between components*

The technical environment of an electoral information system should be designed with the ability to develop appropriate interfaces to allow different systems to exchange information correctly and efficiently. For example, operating systems underlying two system modules can vary if the output of each module can be read and transformed into a format that is understandable by the other module (e.g. XML message or a text file). This interoperability provides the agency with more flexibility when choosing computer applications and computer infrastructure that serve a particular business function. An example of interoperability is the ability to exchange data electronically with municipal agencies, property assessment organizations, the motor vehicle license bureau, and other electoral agencies.

9.3.9 Accessible – *user-friendly*

Accessibility or usability of the technology is critical with all systems, but because of the large numbers of temporary workers hired during events, it is even more critical with electoral information systems. Field staff tend to have little previous computer experience and even less experience with electoral information systems. Given time and budget constraints on the amount of training that can be provided, it is important that electoral information systems are intuitive, easy to learn, and that they have a user interface that is relatively consistent across platforms and devices.

9.3.10 Energy Efficient – *environmentally-friendly*

Selection of the computing environment components and software solutions should consider the overall carbon footprint. Minimizing energy consumed by the computing and network hardware components reduces costs and eases the strain on sourcing power, cooling, and providing backup power. Software should also be designed and implemented to use as few computers, as little disk space, and as narrow a network bandwidth as possible, while still providing the information processing performance and reliability needed. Energy management concepts such as powering off servers and desktop computers when not in use should also be considered.