

City of St. Albert

Emergency Communication – 911 Dispatch Delivery Model Review

FINAL REPORT

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Executive Summary

Project Overview

The City of St. Albert utilizes a police call centre that operates as a Public Safety Answering Point (PSAP) and provides dispatch services to the RCMP and St. Albert's Municipal Enforcement officers. Calls for fire and ambulance are transferred to St. Albert Fire dispatch and Alberta Health Services dispatch respectively. The communication centre receives approximately 15,000 911 calls annually. Approximately 60% of these calls are retained and dispatched to the police, 30% are transferred to Alberta Health Services for Ambulance dispatch and 3% are transferred to Fire Services. The remaining calls are abandoned calls, test calls or transferred to other external agencies.

The City of St. Albert wishes to assess its emergency communication service delivery model to ensure it is efficient and effective. With the mandatory transition to "next generation" or "NG"911 deadline of March 2025, the City would also like to understand the investments required in NG911. Further, the City wants to know if there are investments it should not be making, or if there are alternative service delivery models available that deliver services as effectively to the public but without the required investment in NG911 technology infrastructure.

Comprehensive Review of Current Model

The following bullets provide an overview of takeaways from the current state data summary:

- Annual 911 calls increased over the period of study (2.4% annually).
- Local RCMP and AHS calls comprise approximately 93% of total 911 calls.
- Although local RCMP calls are the largest proportion of calls, RCMP call volume over the period of study has remained relatively steady.
- AHS is the fastest growing call type and is contributing most to overall 911 call increases.
- Fire calls have decreased over the period (by approximately twenty (20) calls annually based on linear regression).
- Primary PSAP metrics, average answer time and the proportion of calls answered in under ten (10) seconds, have improved over the period of study.
- Fire dispatch metrics, average answer time after transfer from 911, and the proportion of calls answered in under ten (10) seconds, have worsened over the period of study.
- Call statistics provide that there are more calls allocated to service providers than total 911 calls. This is assumed to be because some calls require multiple responses. It was anecdotally hypothesized that this might be increasing over time i.e., that the proportion of allocation is higher over time compared to total 911 calls because calls are becoming more complex and require more complex responses. However, the data indicates the opposite is true. There were 2,189 more service provider allocations than 911 calls in 2012 (17% of total 911 calls) and only 1,493 in 2020 or 10% of total 911 calls.

The following bullets provide an overview of takeaways from the current state financial summary:

- “People Costs”, regular salaries, OT, casual and benefits comprised approximately 97% of costs during the period of study.
- Casual and overtime costs have decreased while regular salaries have increased over the period of study. This was the result of a deliberate effort by the City of St. Albert to increase permanent full-time positions while mitigating the need for casual employees and OT.
- Total costs for the police call centre have increased approximately \$124,000 from 2017 - 2020, 9.6% total or an average of approximately 2.3% annually.
- The fire call centre costs had remained stable from 2017 – 2020, averaging an increase of only 0.8% annually.
- Overall combined costs have increased at an average annual rate of approximately 2.5%.
- Grant revenues have not quite kept pace with costs, as a result, net costs after factoring in grant revenues have increased an average of approximately 2.9% over the same period.

Stakeholder and Additional Consultation

- Internal stakeholders indicated that providing dispatching services with local resources provides distinct advantages and the local knowledge provided by local dispatchers was noted as a key differentiator in St. Albert’s model. Stakeholders provided anecdotal support that residents of St. Albert have noted they value speaking with local dispatchers who have a high degree of familiarity with the community.
- Additionally, fire and police members value the connections and partnerships built with dispatchers while attending calls.
- However, it was also reported that challenges exist within the current model specifically related to the separation of the dispatch centres. Dispatchers are not trained across fire and police dispatch and work in separate buildings. Fire and police dispatchers are also represented by different collective bargaining units which results in disparate policies, salaries, and benefits for St. Albert’s dispatchers.
- NG911 infrastructure upgrades will be required for St. Albert to continue operating the centres.

Employee Survey Results

Current State

- Employees believe the strength of the current model is grounded in the high level of local knowledge and the resulting high quality of service provided by dispatchers.
- Perceived weaknesses provided for the current model included a disconnect between the two dispatch centres, a lack of support between the centres, low staffing levels, and a lack of consistent training.

Potential Future Service Delivery Models

- For the status quo model, employees expressed a need to increase the number of employees; however, it was expressed that the current operating model works, and significant changes are not required.
- For the amalgamation of the call centres into one, employees expressed that there would be significant requirements for the transition to succeed. This includes cross training, a larger physical workspace, additional training, and the acquirement of security clearances for fire employees to work within police dispatch.
- Having emergency communication services provided by an outside contractor raised significant concerns for employees surveyed. Employees expressed that fire is likely more readily outsourced but may face similar challenges that EMS has reportedly dealt with since its dispatch transitioned to Alberta Health Services (AHS). The Northern Alberta Operational Communication Centre (NAOCC) was perceived by current St. Albert employees to be at overflow capacity and below minimum staffing levels, which could result in poor service for St. Albert. Employees indicated that there may be a financial benefit providing emergency communication services via a contractor but cautioned that residents may become displeased with the level of service provided by dispatchers that are unfamiliar with St. Albert.

Environmental Scan

- Seven municipalities were identified with input from the project's Steering Committee for the purpose of conducting a jurisdictional review with the intent of capturing a broad range of service delivery options from providing to receiving PSAP and dispatch services for both police and fire.
- NG911 is expected to make it easier for emergency crews from police and fire, to locate callers and respond to their needs. It will also allow the public to communicate with PSAP's in expanded and more sophisticated ways such as text and video. This will allow PSAP's to gather, analyze and respond more effectively to the information they receive via 911.
- All municipalities and external stakeholders expressed that the transition to NG911, if implemented in a strategic and collaborative way amongst providers and users, will be a welcomed upgrade to public safety communication in Alberta and will respond to the public's expectations of enhanced services for their public safety tax dollars.
- A common topic of discussion with other jurisdictions was balancing the benefits of preserving "local people with local knowledge" delivering 911 and dispatch services versus potential cost efficiencies found through using a contracted service. Operating a communication centre is costly, with most smaller municipalities in Alberta contracting their services to contractors with economies of scale.

Potential Future Options for Service Delivery

The following potential emergency communications model options for St. Albert were developed and further analysed for strengths and weaknesses.

1. Status Quo

In a status quo alternative, the City of St. Albert would not make changes to the existing service model. The police dispatch and fire dispatch centres would continue to operate separately, and the 911 PSAP would continue to operate from the police dispatch centre.

	RCMP Detachment	Fire Hall #3	Contracted
Primary PSAP	✓		
Secondary PSAP		✓	
Police Dispatch	✓		
Fire Dispatch		✓	
ME Dispatch	✓		
After Hours PW		✓	

2. Amalgamation

An amalgamation of the two dispatch centres would maintain service within St. Albert and reduce redundant operating costs between the two separate centres. The primary PSAP, police dispatch and fire dispatch would be located at the RCMP Detachment.

	RCMP Detachment	Fire Hall #3	Contracted
Primary PSAP	✓		
Secondary PSAP			✓
Police Dispatch	✓		
Fire Dispatch	✓		
ME Dispatch	✓		
After Hours PW	✓		

It is expected that amalgamation to the Maloney Place detachment communications centre will require an expansion of the current physical space. However, cost estimates for the expansion were unavailable at the time of this report.

3. Contract

Most municipalities in Alberta contract elements of their call taking and dispatching services to other municipalities or service providers that provide the services at an annual rate. There are several alternatives which could be undertaken in a model where services are contracted to external PSAP and dispatch centres.

a. Contract Primary PSAP and Fire Dispatch to an External Service Provider

- Secondary PSAP and police dispatch, ME dispatch would continue to be operated in the St. Albert police communications centre.

	RCMP Detachment	Fire Hall #3	Contracted
Primary PSAP			✓
Secondary PSAP	✓		
Police Dispatch	✓		
Fire Dispatch			✓
ME Dispatch	✓		
After Hours PW	✓		

- b. Contract Secondary PSAP and Fire Dispatch to an External Service Provider
- Primary PSAP services and police dispatch would remain in St. Albert police communications centre.

	RCMP Detachment	Fire Hall #3	Contracted
Primary PSAP	✓		
Secondary PSAP			✓
Police Dispatch	✓		
Fire Dispatch			✓
ME Dispatch	✓		
After Hours PW	✓		

- c. Contract Secondary PSAP and Police Dispatch to an External Service Provider
- Police dispatching would be contracted out. Fire dispatch would remain in St. Albert and the primary PSAP would be moved to there.

	RCMP Detachment	Fire Hall #3	Contracted
Primary PSAP		✓	
Secondary PSAP			✓
Police Dispatch			✓
Fire Dispatch		✓	
ME Dispatch	✓		
After Hours PW		✓	

- d. Contract Police and Fire Dispatch, and Secondary PSAP
- The primary PSAP would remain in St. Albert, as well as non-emergency call taking and municipal enforcement dispatch.

	RCMP Detachment	Fire Hall #3	Contracted
Primary PSAP	✓		
Secondary PSAP			✓
Police Dispatch			✓
Fire Dispatch			✓
ME Dispatch	✓		
After Hours PW	✓		

- e. Contract Primary and Secondary PSAPs, Fire Dispatch and Police Dispatch
- Primary PSAP and fire dispatch would be contracted out together to a provider such as Strathcona County or Parkland County, and police dispatch and the secondary PSAP would be contracted out to a provider such as the RCMP NAOCC.

	RCMP Detachment	Fire Hall #3	Contracted
Primary PSAP			✓
Secondary PSAP			✓
Police Dispatch			✓
Fire Dispatch			✓
ME Dispatch	✓		
After Hours PW	✓		

4. Sell Emergency Communications Services to Others

The final option is continuing to operate all the current services, likely in an amalgamated model, but investing into additional capacity to be able to offer PSAP and dispatching services to other municipalities.

	RCMP Detachment	Fire Hall #3	Contracted
Primary PSAP	✓		
Secondary PSAP			✓
Police Dispatch	✓		
Fire Dispatch	✓		
ME Dispatch	✓		
After Hours PW	✓		

Findings and Recommendation

The following criteria, as provided in St. Albert's RFP for this study, were used to compare each of the service models against each other. The models have been evaluated based upon their relative characteristics in each of the following metrics. Efforts were made to make empirical estimates of each of these measures. Descriptions of consideration elements are provided below.

People: Considerations regarding impacts to employees in the dispatch centres on a spectrum of "Disruptive to "Non-Disruptive. Considerations include the number of layoffs, risk of labour disputes, job shifts, and the potential volume of training and onboarding required. Layoffs were rated the most disruptive followed by risk of labour disputes, job shifts and then training. The volume of each was calculated, scored, and added to the spectrum.

Processes: Considerations regarding impacts to operations and administrative functions on a spectrum of "Simple" to "Complex". Considerations include implementation and operations complexity such as the volume of organizations involved, simplicity of call path, and degree of standardization and were scored accordingly. The "Process" rankings fall in a tighter band on the spectrum. It was determined that although processes may range from simple to complex, the order of magnitude of the change would not represent multiples of each other. I.e., a process that rated a 3 would have to be 3 times as complex as a 9 and it was determined this was not likely to be the case.

Customer impact: Considerations regarding current customers (residents of St. Albert) on a spectrum of potential customer impacts of "Low Risk" to High Risk". Considerations include the degree of localness as well as the degree of control St. Albert would have regarding service provision standards. Like the process spectrum, these rating fall into a tighter cluster across the spectrum. Customer service may decline but is not likely to be a third of the status quo.

Technology: Considerations regarding required investments to technological infrastructure from "Low" to "High". Technology was rated along the spectrum proportionately based upon the expected 10-year cumulative technology cost. A model that rated a 4 would cost half as much as a model rated an 8 over the 10-year period.

Financial impact: Financial analysis based upon annual operating costs from "Lower" to "Higher" – in relative terms. Costs were rated along the spectrum proportionately based upon annual estimated cost using the same methodology as "Technology".

Each model as presented has at least some merit within one or more of the framework metrics. The criteria that St. Albert deems to be the most important as a community will have a significant impact on the which model is the best fit. For example, if cost is the largest factor, the cheapest option may seem the most logical. However, if customer impact is the largest factor, the model that focuses most on service level will seem most logical.

Therefore, a weighted allocation was given to each evaluation consideration to capture the importance of each. Weightings are based on the perspectives garnered regarding each consideration throughout consultations. Cost and customer service were the most mentioned considerations while the remaining

three were acknowledged, but to a lesser degree. The resulting weighting used for this assessment is included below.

Evaluation Consideration	Allocation
People	10%
Processes	10%
Customer Impact	35%
Technology	10%
Financial Impact	35%
Total	100%

This weighting was used in conjunction with the scoring of each option across spectrums from the previous sections. Weighted averages of the scores for each consideration are added together for a final score. Results are included in the following table.

Model	People (10%)	Processes (10%)	Customer Impact (35%)	Technology (10%)	Financial (35%)	Weighted Average Total
3B – Contract Fire Dispatch and 2° PSAP	6.74	5.25	7.50	8.70	7.80	7.42
2 – Amalgamation – 1° PSAP and Police and Fire Dispatch at Fire – Contract out 2° PSAP	7.57	8.25	7.00	8.20	6.40	7.09
SQ – Status Quo	9.00	4.75	8.50	2.30	6.30	6.79
3D – Contract Police and Fire Dispatch and 2° PSAP	4.83	3.25	5.50	9.10	9.00	6.79
4 – Sell Emergency Communication Services to Others	8.52	4.75	7.50	1.30	5.00	5.83
3A – Contract Fire Dispatch and Primary PSAP	6.74	4.25	4.50	8.70	5.70	5.54
3E – All Emergency Communication Services Contracted to an External Service Provider	1.50	4.25	2.50	10.00	7.50	5.08
3C – Contract Police Dispatch and 2° PSAP	3.40	4.25	3.50	1.30	6.50	4.40

The top-rated model based upon the criteria, consideration allocation and ranking as described is model **3B – Contract Fire Dispatch and the Secondary PSAP**. This model ranks well in “Technology” because it negates the need to invest in expensive NG911 technology for fire dispatch and the secondary PSAP (police dispatch and primary PSAP can utilize the much cheaper RCMP Solacom technology). It also ranks relatively high on customer impact because most client interactions are maintained internally. Approximately only 350 fire calls will be outsourced from more than 15,000 911 calls. The secondary PSAP is an emergency back up and would only be required in an emergency in which the primary PSAP was inoperable. This model ranked second overall in the cost category. Retaining the primary PSAP maintains substantial provincial funding revenue while contracting the secondary PSAP and fire dispatch, despite losing the lesser secondary PSAP funding, is a net cost benefit. Of note, significant costs are required to be maintained at the police call centre regardless of model. These staff currently perform duties such as answering non-emergency and administrative call lines, updating CPIC and dispatching ME officers. In this model, they would also perform some of the services that fire dispatch current provides including weather monitoring. Therefore, maintaining this operation does not score much worse than outsourcing the police dispatch because many of these resources need to be maintained anyway. In fact, RCMP detachments that outsource police dispatch to an RCMP OCC in Alberta typically have significant municipal resources to perform these same activities (ME dispatch, administrative and non-emergency call lines, etc.) The process remains relatively streamlined in this model as well. Only a small proportion of calls are transferred and require a secondary contract organization, and much of the emergency communication activity, both emergency and non-emergency, remains consolidated. This model does require the layoff of fire dispatchers however and scored low in the “People” category as a result.

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1 Introduction

1.1 Project Overview

The City of St. Albert utilizes a police call centre that operates as a Public Safety Answering Point (PSAP) and provides dispatch services to the RCMP and St. Albert's Municipal Enforcement officers. Calls for fire and ambulance are transferred to St. Albert Fire dispatch and Alberta Health services dispatch respectively. The communication centre receives approximately 15,000 911 calls per year. Approximately 60% of these calls are retained and dispatched to the local RCMP, 30% are transferred to Alberta Health Services for Ambulance dispatch and 3% are transferred to Fire Services. The remaining calls are test calls or transferred to other external agencies.

With the mandatory transition to "next generation" or "NG"911 deadline of March 2025, the City of St. Albert wishes to assess its emergency communication service delivery model to ensure it is efficient and effective, but to also understand the implications of required NG911 investments. Further, the City wants to know if there are investments it should not be making, or if there are alternative service delivery models available that deliver services as effectively to the public but without the required investment in NG911 technology and infrastructure.

The goal of this review is to assess the service delivery options and recommend, based on analysis, an option that the City should pursue. Should the City continue with two separate dispatch centres (fire and policing) or consolidate to one? Could these services be contracted out either partially or completely? Could St. Albert increase its operational capacity to where it could provide services to other municipalities or agencies? The following report will endeavour to answer these questions while bearing in mind the impact that each may have on the service level received by the citizens of St. Albert.

1.1.1 Project Workplan

The project has been conducted in a three-phased model, structured as follows:

Phase 1: Project Initiation and Planning

The goal of phase 1 was to work closely with the St. Albert Project Team through a kick-off workshop and subsequent communications to confirm expectations, and conduct a detailed validation of the project scope, objectives, resources, approach and expected outcomes.

- Prepare materials for project kick-off meeting
- Conduct project initiation workshop with the project committee
- Finalize project plan based on St. Albert feedback received during the project initiation workshop
- Project management including progress reporting and bi-weekly check-ins

Phase 2: Current State Analysis and Benchmarking

In phase 2, an in-depth understanding of the current service and environment was established,

including current strengths, challenges, opportunities, and threats. A benchmarking comparison of St. Albert resources and programs to other Albertan jurisdictions was completed.

- Collect and review existing data sets outlined in the RFP
- Identify, collect, and review additional data and information to inform the review
- Develop data collection tools for stakeholder interviews or focus groups (interview guides et.)
- Conduct stakeholder consultations
- Benchmarking of programs and resources
- Project management including progress reporting and bi-weekly check-ins

Phase 3: Recommendation Development and Reporting

Phase 3 consisted of consolidating the data collection and analysis initial findings report, as well as identifying opportunities to become more operationally effective and efficient.

- Consolidate and analyze all information collected in stakeholder consultation, data collection and benchmarking activities in Phase 2 and identify areas of opportunity
- Develop initial findings report including cost benefit analysis for each service delivery option
- Develop a projection of revenue and expense impacts over 10 years for each service delivery option
- Cross reference each service delivery option keeping in mind the impact elements from Phase 2
- Consolidate all reporting into draft report
- Present the draft report and facilitate review process with the City of St. Albert senior leadership
- Incorporate feedback and finalize report

1.2 Data Request

Data files provided by St. Albert to the MNP team included:

- 911 Funding Sharing Options – Government of Alberta
- 2018 Annual Policing Report
- 2019 Briefing Note – Next Generation 911
- 2020-21 St. Albert Annual Policing Plan Priorities
- Alberta Emergency Management Agency responses
- Agenda Report Emergency Services Dispatching Review – In Camera
- Confidential Administrative Report – Emergency Services Review
- Call Answer Times - PSAP
- City of St. Albert Community Engagement Survey Report
- City of St. Albert Operational and fiscal review – May 2021
- City of St. Albert Operational and fiscal review – Management Response
- COSA 911 Emergency Response Plan
- COSA Policing Committee – Policing Priorities Survey
- Dispatch Options – Appendix 1
- Emergency Services Dispatcher Job Description
- Fire Dispatch Performance Review – July 2021
- Monthly 911 Calls – 2012-2021

- Municipal Police Service Agreement
- NG 9-1-1 Strategy – Final
- NG 9-1-1 NOC Final Coalition Response
- NG 9-1-1 Planning – Creative Telecom Consulting Report
- Policing Services Long Term Department Plan
- Policing Communication Supervisor, Senior Emergency Communication Operator, ECO Job Descriptions
- St. Albert Solacom Costs
- PSAP NG 9-1-1 Cost Considerations FAQ

1.2.1 Data Limitations

Data and cost estimates were requested from external stakeholders and jurisdictions for several areas in the report. The ability to obtain full sets of information from external stakeholders was limited, as many requests were partially fulfilled or unable to be fulfilled. Expected costs in the Potential Future State Models section have been prepared based on estimates provided by various stakeholders.

1.3 Stakeholder Interviews

Eighteen (18) interviews were conducted with internal and external stakeholders from August 30th, 2021 to November 5th, 2021. To request and verify participation for this review, all potential participants were individually contacted by MNP via e-mail. A standardized script was utilized by MNP to inform potential participants about the purpose of this study, why they were being contacted, and what their participation would entail. Furthermore, all potential participants were informed that their responses would be provided in aggregate with no ability to identify individual respondents to provide confidentiality, and that participation in the study was voluntary. Interviews were conducted through video communication (Microsoft Teams). Interview notes were subsequently uploaded to the secure client file on an MNP server in Winnipeg. Interviews were semi-structured and separate interview guides were utilized based on the position and expertise of the stakeholders. A summary table of stakeholders consulted to inform this study can be found in Appendix 2.

2 Current Model Review

2.1 Introduction

The City of St. Albert utilizes a police call centre that operates as a Public Safety Answering Point (PSAP) and provides dispatch services to the RCMP and St. Albert’s Municipal Enforcement officers. Calls for fire and ambulance are transferred to St. Albert Fire dispatch and Alberta Health Services dispatch respectively. Emergency communications services provided by the two centres are provided to St. Albert residents alone.

As detailed in Figures 1 and 2, the local police dispatch handles RCMP emergency call taking and dispatch, as well as RCMP and Municipal Enforcement non-emergency call-taking and dispatch. Police call centre staff provide a variety of other duties such as Canadian Police Information Centre (CPIC) support and front-line police officer support. The fire-based communication centre handles emergency and non-emergency fire calls as well as medical first response and serious weather monitoring. Additionally, the fire communications centre handles a Public Works after hour emergency line, acts as the secondary 911 PSAP, and provides additional administrative support.

Figure 1: Current State of Emergency Communication Services

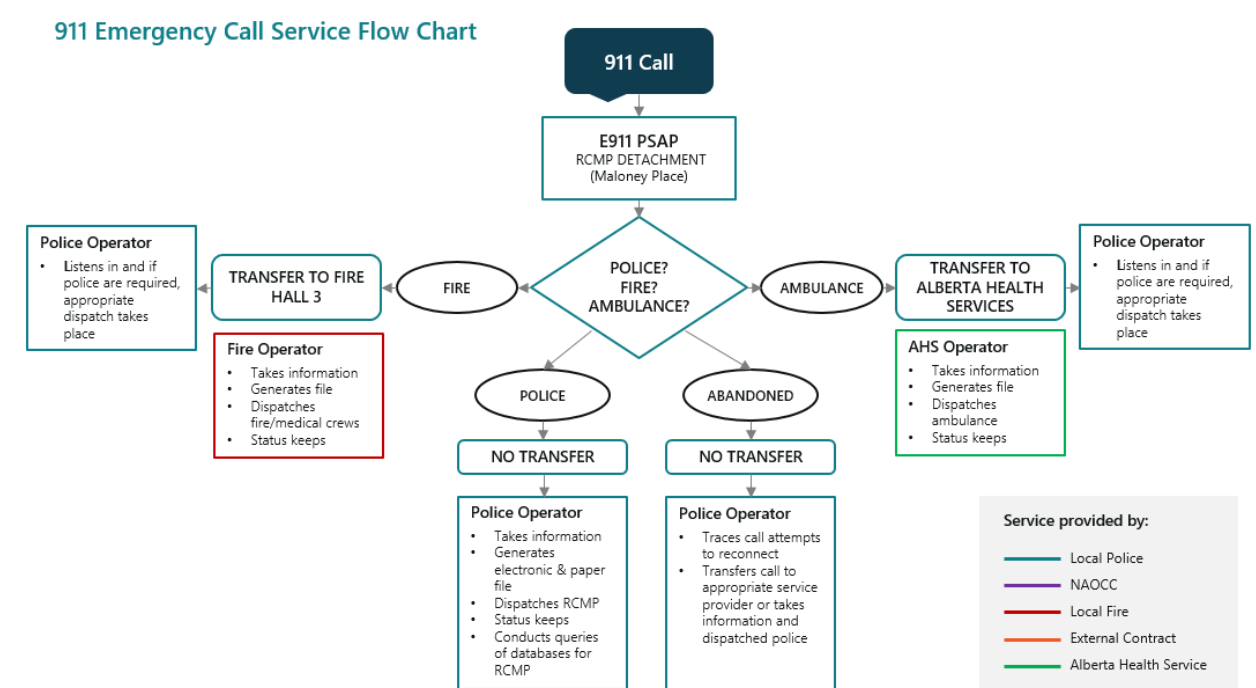
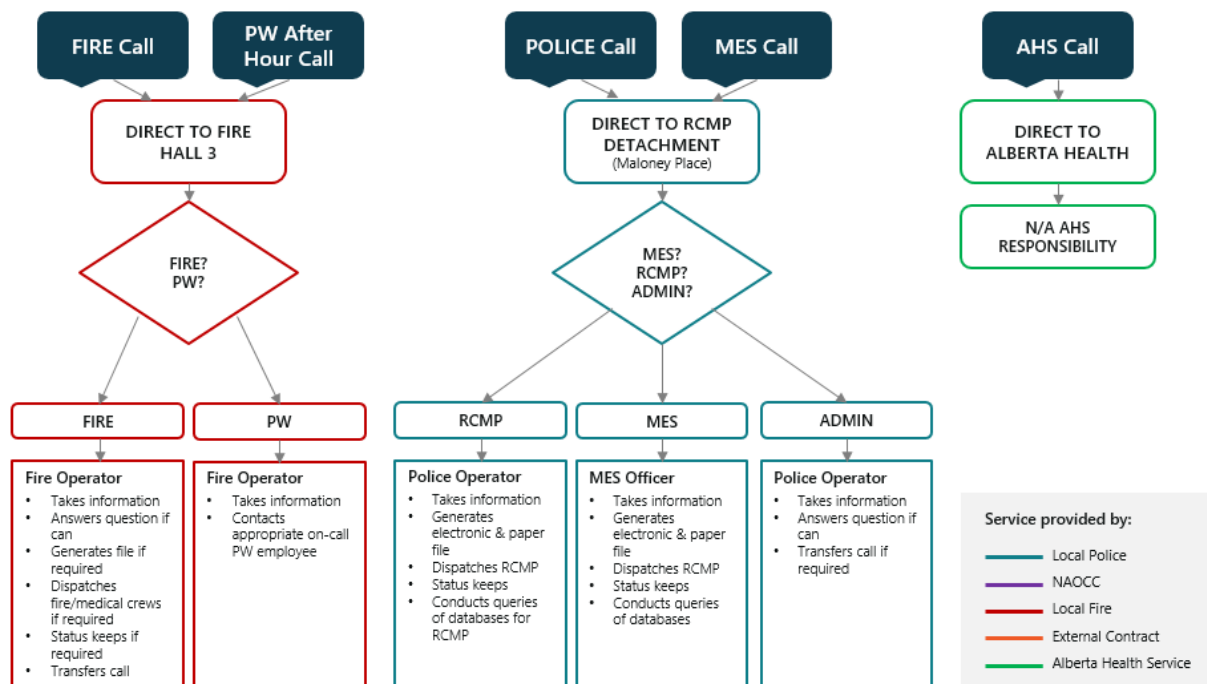


Figure 2: Current State of Non-Emergency Communication Services

Non-Emergency Call Service Delivery Flow Chart



2.2 Current State Data

The following table provides a summary of the volume of calls managed by the two call centres in St. Albert from 2012 to 2020. The sum of call destinations does not equal the volume of 911 calls because some calls can be transferred to multiple service provider destinations.

The majority of total 911 calls end up with the St. Albert OCC and a dispatched RCMP response. Alberta Health Services comprises the next largest proportion followed by abandoned calls, the Edmonton Police Service, Fire and the NAOCC.

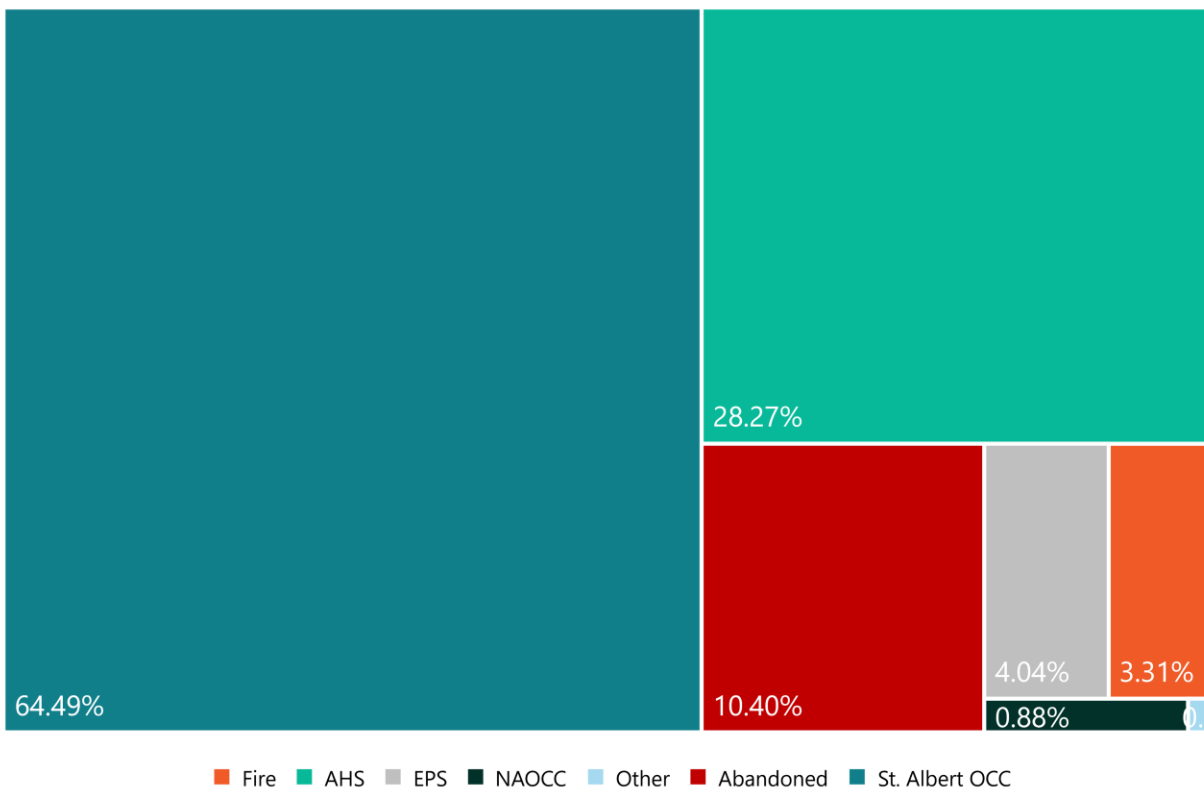
Table 1: Emergency Communication 911 Call Summary (2012 - 2020)

	911 Calls	Fire	AHS	EPS	NAOCC	Other	Abandoned	St. Albert OCC
2012	12,873	451	3,116	227	93	N/A	1,378	9,797
2013	11,629	483	3,059	159	102	N/A	1,168	8,427
2014	11,982	461	3,249	512	105	N/A	1,287	8,375
2015	12,482	539	3,372	628	123	N/A	1,578	8,831
2016	13,227	596	3,985	538	128	13	1,405	7,400
2017	12,628	326	3,967	633	100	35	1,016	7,761
2018	13,499	388	4,278	721	142	26	1,120	7,350

	911 Calls	Fire	AHS	EPS	NAOCC	Other	Abandoned	St. Albert OCC
2019	14,830	338	4,291	704	112	20	1,485	8,872
2020	15,386	346	4,197	665	135	21	1,887	9,628
% of Total	-	3.31%	28.27%	4.04%	0.88%	0.10%	10.40%	64.49%

Note: Fire Test Calls have been removed from total Fire Calls figures. Fire test calls are comprised of the fire communications centre calling 911, the call being received by the primary PSAP and then transferred to fire dispatch. These test calls ensure the PSAP and related technology is functioning properly. From 2017-2020, there was an average of 567 fire test calls annually.

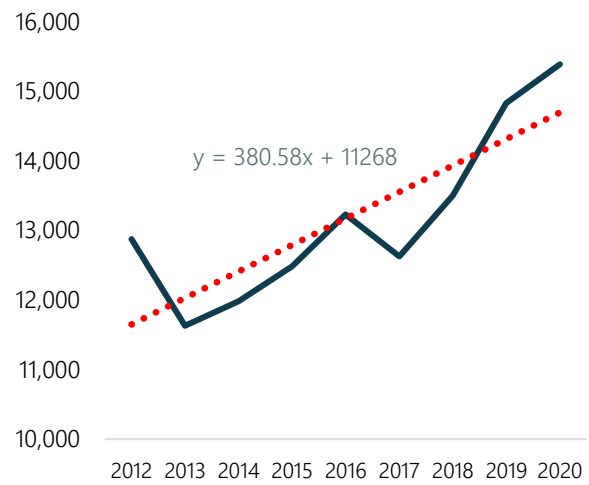
Figure 3: Destination for St. Albert 911 Calls in 2012 - 2020 inclusive



2.2.1 911 calls

911 calls have increased from 12,873 in 2012 to 15,386 in 2020, an increase of approximately 19.5% during the period of study. This represents an average annual rate of change of approximately 2.4% annually or 380 calls annually based on linear regression.

Figure 4: Total St. Albert 911 Calls (2012 - 2020)

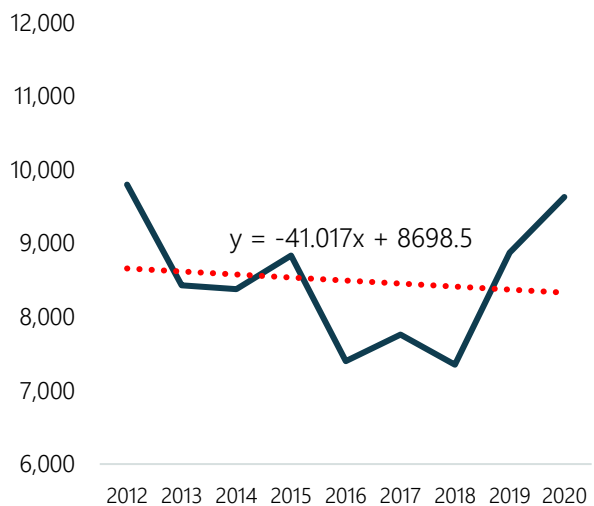


2.2.2 St. Albert RCMP Calls

911 calls directed to St. Albert RCMP have averaged approximately 65% of total 911 calls during the period of study. However, the proportion of total 911 calls transferred to local RCMP has decreased over the period of study, from 75% in 2012 to 63% in 2020.

911 calls to the St. Albert RCMP decreased by 1.7% from 2012 to 2020 with an average annual rate of change of approximately 0.4% or approximately 41 calls annually based on linear regression. However, calls have increased from approximately 7,400 in 2016 to 9,628 in 2020, representing an increase of 30% over that period.

Figure 5: St. Albert 911 Calls Transferred to Police (2012 - 2020)

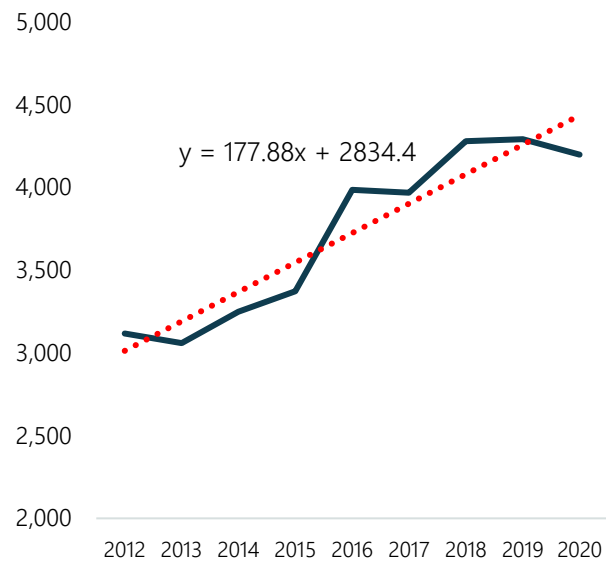


2.2.3 Alberta Health Services Calls

911 calls directed to Alberta Health Services (AHS) have averaged approximately 28% of total 911 calls during the period of study. However, the proportion of total 911 calls transferred to AHS has increased over the period of study, from 24% in 2012, peaking at 31% in 2017 and to 27% in 2020.

911 calls intended for AHS have increased from 3,116 in 2012 to 4,197 in 2020, representing an increase of 34.7% during the period of study. This represents an average annual rate of change of approximately 4% or approximately 178 calls annually based on linear regression.

Figure 6: St. Albert 911 Calls Transferred to AHS (2012-2020)

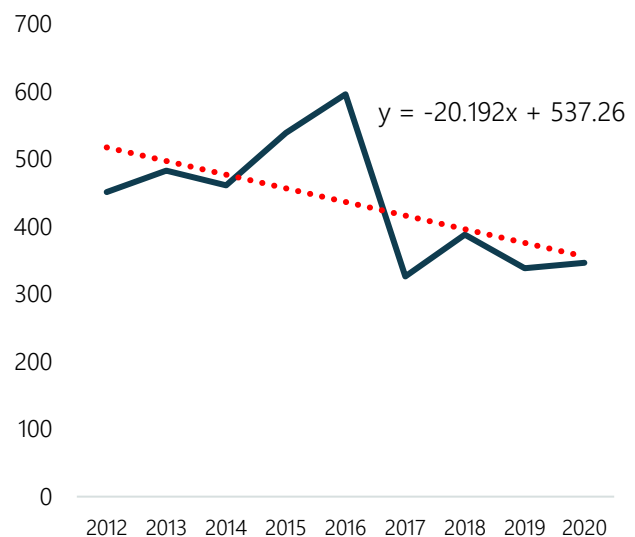


2.2.4 St. Albert Fire Calls

911 calls directed to St. Albert Fire Services have averaged approximately 3.3% of total 911 calls during the period of study. However, the proportion of total 911 calls transferred to the local fire service has decreased over the period of study, from 4% in 2012 to 2% in 2020.

911 calls to St. Albert Fire have decreased from 451 in 2012 to 346 in 2020, representing a decrease of 23.2% during the period of study. This represents an average annual rate of change of approximately -0.84% or a decrease of 20 calls annually based on linear regression.

Figure 7: St. Albert 911 Calls to Fire (2012 - 2020)

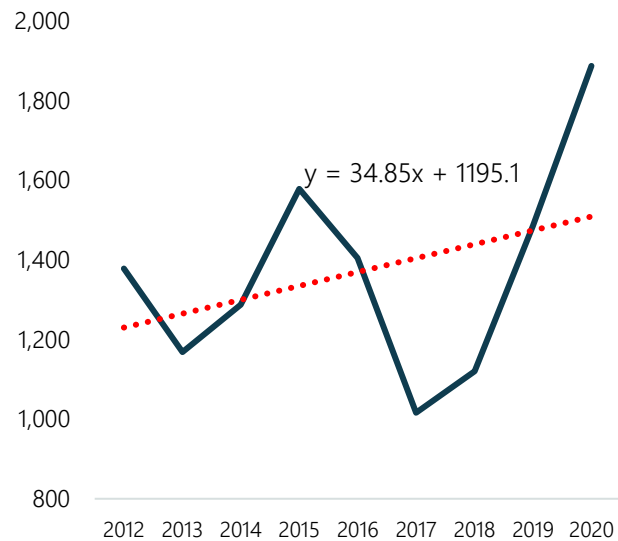


2.2.5 Abandoned Calls

911 calls that are abandoned have averaged approximately 10.4% of total 911 calls during the period of study. Although it has fluctuated, abandoned calls have remained relatively steady as a proportion of total 911 calls at 11% in 2012 and 12% in 2020

Abandoned calls have increased from 1,378 in 2012 to 1,887 in 2020, representing an annual rate of change of approximately 6.1%.

Figure 8: St. Albert 911 Calls Abandoned (2012 - 2020)



2.2.6 Other Calls

911 calls that have been intended for the Edmonton Police Service (EPS) and required a redirect have averaged approximately 4% of total 911 calls during the period of study. Calls intended for the EPS increased significantly from 227 in 2012 to 665 in 2020, representing an annual rate of change of approximately 28%.

911 calls that have been intended for the RCMP Northern Alberta Operational Communications Centre (NAOCC) and required a redirect have averaged approximately 0.88% of total 911 calls during the period of study. Calls intended for the NAOCC increased from 93 in 2012 to 135 in 2020, representing an annual rate of change of approximately 6.67%.

2.2.7 Total Police Dispatch Incident Volumes

Table 2 provides total dispatched incident volumes at St. Albert police dispatch for both emergency and non-emergency incidents for the RCMP and MES. It is important to note the following:

- The data set includes both emergency and non-emergency incidents.
- The data set does not include administrative, reception or information calls.
- This does not directly correlate with 911 call volumes as detailed above, as there can be multiple 911 calls for an emergency incident. Additionally, 911 calls do not always result in a dispatched call.

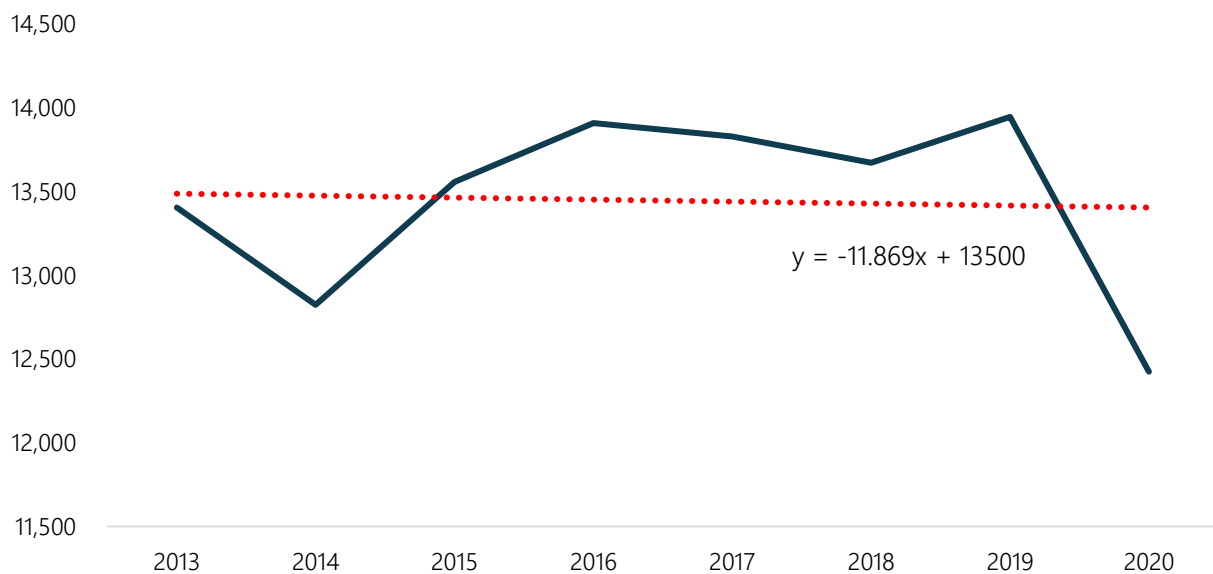
Therefore, the following data must be evaluated separately to the 911 call volumes detailed in the preceding sections.

Table 2: Emergency and Non-Emergency Calls to St. Albert Police Call Centre (2013 - 2020)

Year	Total Calls	% Change from Previous Year
2013	13,406	-

Year	Total Calls	% Change from Previous Year
2014	12,825	-4.3%
2015	13,559	5.7%
2016	13,911	2.6%
2017	13,829	-0.6%
2018	13,673	-1.1%
2019	13,947	2.0%
2020	12,425	-10.9%

Figure 9: Emergency and Non-Emergency Calls to St. Albert Police Call Centre (2013 - 2020)



Dispatched call volumes have remained steady, with an average annual rate of change of -0.9%, or a decrease in 12 calls annually based on linear regression.

2.2.8 Call Answer Times

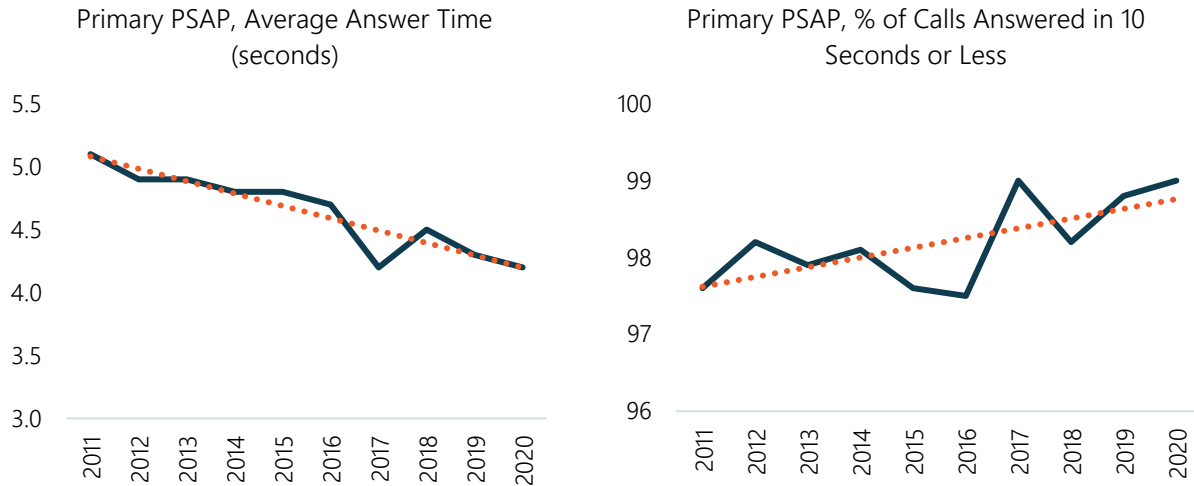
The Province of Alberta performance standards related to the answering and transfer of 911 calls are:

- All 911 calls should be answered within 15 seconds, 95 per cent of the time.
- All 911 lines will have answering priority over non-emergency lines.
- All 911 voice calls, where the telecommunicator is not doing call evaluation, should initiate the transfer (when required) to another jurisdiction’s primary PSAP, a secondary PSAP, or dispatcher within 60 seconds after the call has been answered, 95 per cent of the time.

The St. Albert PSAP has maintained rapid 911 call response rates and has even improved within the last decade. 911 calls received at the St. Albert primary PSAP have averaged an answer time of 4.64 seconds from 2011-2020. The average answer time has decreased from 5.1 seconds in 2011 to 4.2 seconds in 2020. This a decrease of 9% over the period of study.

The average percentage of calls answered in ten (10) seconds or less at the primary PSAP was 98.2% during the period of study. The proportion has increased from 97.6% in 2011 to 99% in 2020, an increase of 1.4% during the period of study.

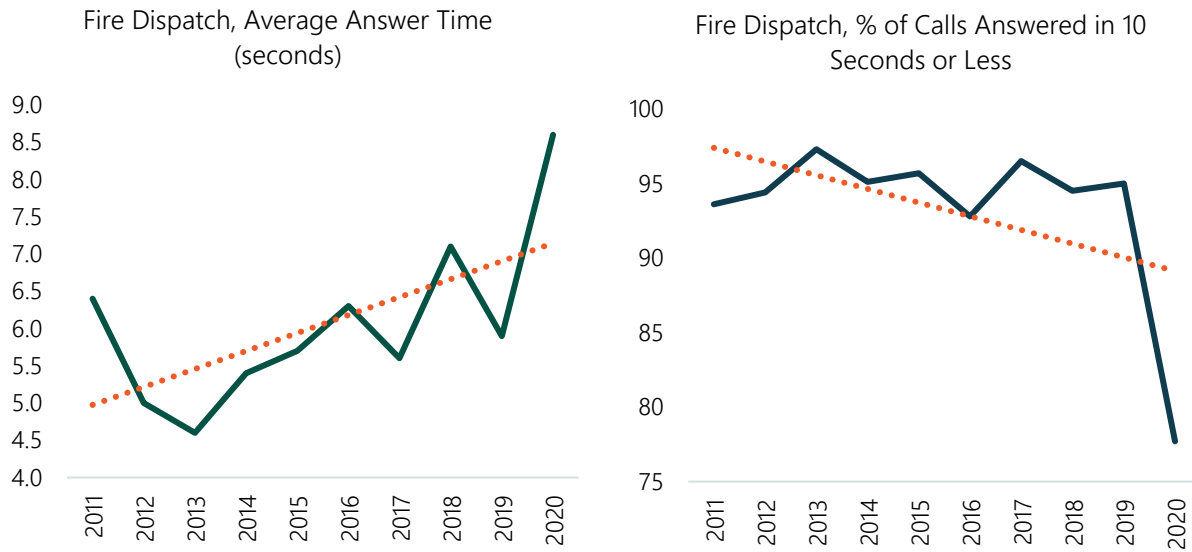
Figure 10: Primary PSAP Call Answer Time Data



911 calls transferred to the St. Albert Fire Dispatch have had an average answer time of 6.06 seconds from 2011 to 2020. This metric measures the time elapsed from a 911 call being transferred from the PSAP to fire dispatch and fire’s answering of that call. The average answer time has increased from 6.4 seconds in 2011 to 8.6 seconds in 2020.

The average percentage of calls answered in ten (10) seconds or less at fire dispatch is 93.26% during the period of study. The percentage has increased from 93.6% in 2011 to 95% in 2019. 2020 was noted to be an outlier in the data set, with a percentage of 77.7% of calls answered in 10 seconds or less. This was attributed to a decrease in full-time dispatchers during the year.

Figure 11: Fire Dispatch Call Answer Time Data



2.3 Current State Financial Data

The following tables provide a financial overview of the St. Albert emergency communication centres.

Table 3: St. Albert Police Emergency Communication Centre Financial Information (2017 - 2020)

Police Communications	2017	2018	2019	2020
Revenue	\$485,986	\$406,780	\$419,233	\$408,687
Salaries				
Regular	\$746,157	\$892,454	\$980,009	\$1,015,850
OT	59,939	67,666	46,808	8,142
Other/Casual	210,077	101,784	127,355	139,994
Expenses				
Benefits	\$194,448	\$215,375	\$235,480	\$241,351
Miscellaneous	73,436	2,445	4,997	2,137
Total Expenses	\$1,284,057	\$1,288,565	\$1,398,227	\$1,407,998
Net Expense	\$798,071	\$872,943	\$975,417	\$999,311

Table 4: St. Albert Fire Emergency Communication Centre Financial Information (2017 - 2020)

Fire Communications	2017	2018	2019	2020
Salaries				
Regular	\$361,562	\$303,563	\$365,086	\$371,576
OT	29,926	30,694	17,238	18,183
Other/Casual	33,050	32,015	37,547	35,873
Expenses				
Benefits	\$87,198	\$87,557	\$92,516	\$88,168
Repairs and Maintenance	29,529	24,673	34,159	36,020
Training		8,842	3,578	
Fire Dispatch Certification	3,300	3,300	3,300	3,300
Miscellaneous	3,662	580	3,981	3,434
Total Expenses	\$548,324	\$491,355	\$557,432	\$556,554
Net Expense	\$548,324	\$491,355	\$557,432	\$556,554

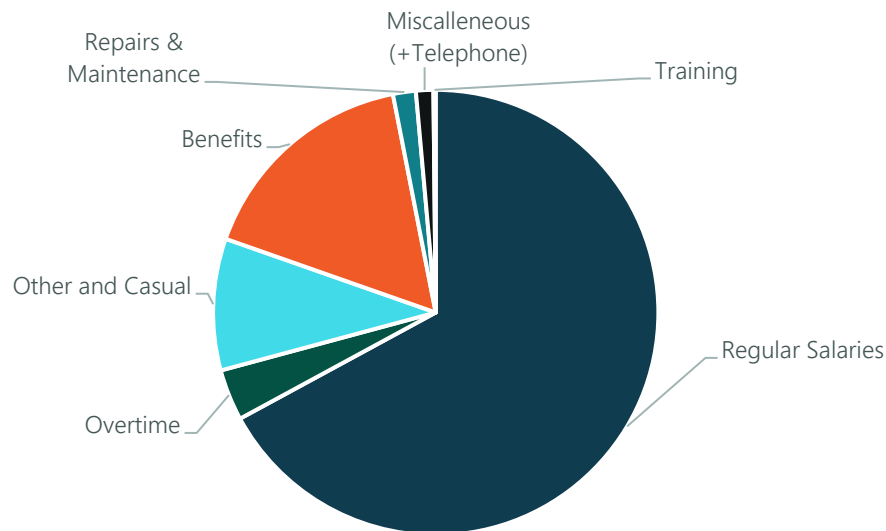
Note: Fire Training costs were not included in the Fire Communications budget and were sourced from the corporate training accounts provided by St. Albert.

Revenue is generated through both a provincial PSAP operating grant and the provincial 911 fees collected through phone bills.

“People costs” comprise most of the overall costs with regular salaries comprising an average of 67% of total costs over the period of study and OT and “Other/Casual” comprising 4% and 10% respectively. Total people costs comprise approximately 97% of total costs including all “pay” elements and benefits. Benefits averaged approximately 25% of regular salaries during the period.

Total costs for the police call centre have increased approximately \$124,000 from 2017 - 2020, 9.6% total or an average of approximately 2.3% annually. The fire call centre costs remained stable from 2017 – 2020, averaging an increase of only 0.8% annually. Overall combined costs have increased at an average annual rate of approximately 2.5%. Grant revenues have not quite kept pace with costs and, as a result, net costs after factoring in grant revenues have increased an average of approximately 2.9% over the same period.

Figure 12: Proportionate Average Operating Costs – Both Centres - (2017 - 2020)

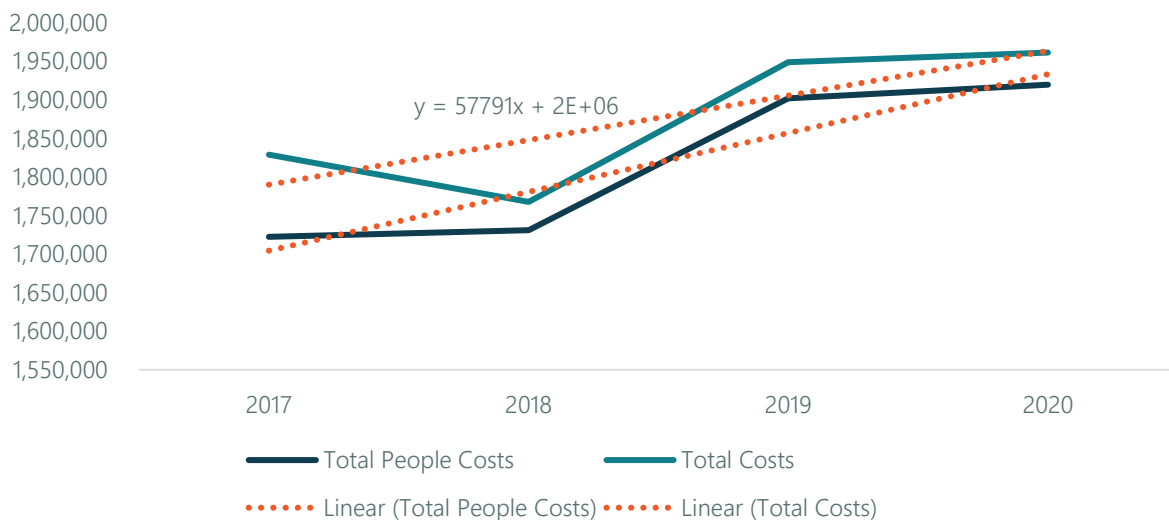


Regular salaries have been growing proportionately over the period, from 61% of total costs in 2017 to 71% in 2020, while OT and casual have been decreasing proportionately over the same period (5% to 1% and 13% to 9% respectively). This was the result of a deliberate effort by the City of St. Albert to increase permanent full-time positions while mitigating the need for casual employees and OT.

Regular salary costs have grown at an average annual rate of 7.9% during the period while OT and Casual have decreased. Total people costs, including benefits, have risen at an average annual rate of approximately 3.8% with the largest single year increase between 2018 to 2019 of approximately 10%.

People costs comprise most of the costs and as such, total costs mirror with an average annual increase of approximately 2.5%, with the largest single year increase between 2018 to 2019 of approximately 10%.

Figure 13: St. Albert Emergency Communications Centres People Costs and Total Costs (2017 - 2020)



2.4 Current State Summary

The following bullets provide an overview of takeaways from the current state data summary:

- Annual 911 calls increased over the period of study (2.4% annually).
- Local RCMP and AHS calls comprise approximately 93% of total 911 calls.
- Although local RCMP calls are the largest proportion of calls, RCMP call volumes over the period of study have been relatively steady.
- AHS is the fastest growing call type and is contributing most to overall 911 call increases.
- Fire calls have decreased over the period (by approximately twenty (20) calls annually based on linear regression).
- Primary PSAP metrics, average answer time and the proportion of calls answered in under ten (10) seconds, have improved over the period of study.
- Fire dispatch metrics, average answer time after transfer from 911, and the proportion of calls answered in under ten (10) seconds, have worsened over the period of study.
- Call statistics provide that there are more calls allocated to service providers than total 911 calls. This is assumed to be because some calls require multiple responses. It was anecdotally hypothesized that this might be increasing over time i.e., that the proportion of allocation is higher over time compared to total 911 calls because calls are becoming more complex and require more complex responses. However, the data indicates the opposite is true. There were 2,189 more service provider allocations than 911 calls in 2012 (17% of total 911 calls) and only 1,493 in 2020 or 10% of total 911 calls.

The following bullets provide an overview of takeaways from the current state financial summary:

- “People Costs”, regular salaries, OT, casual and benefits comprised approximately 97% of costs during the period of study.
- Casual and overtime costs have decreased while regular salaries have increased over the period of study. This was the result of a deliberate effort by the City of St. Albert to increase permanent full-time positions while mitigating the need for casual employees and OT.
- Total costs for the police call centre have increased approximately \$124,000 from 2017 - 2020, 9.6% total or an average of approximately 2.3% annually.
- The fire call centre costs had remained stable from 2017 – 2020, averaging an increase of only 0.8% annually.
- Overall combined costs have increased at an average annual rate of approximately 2.5%.
- Grant revenues have not quite kept pace with costs, as a result, net costs after factoring in grant revenues have increased an average of approximately 2.9% over the same period.

3 Stakeholder and Additional Consultation

The following subsections provide input regarding St Albert's emergency call centres as provided within the project's consultations. Firstly, from a variety of internal stakeholders, then input from a survey of current call centre employees. Questions from St. Albert's most current residents survey have also been included. The final subsections include the results of consultation with a curated group of municipalities that shared their emergency communication center experiences.

3.1 Strengths, Opportunities and Weaknesses of the Current State

The following subsections outline themes gleaned from internal stakeholder interviews. These themes have been organized into a SWOT analysis and include perceived strengths, weaknesses, opportunities, and potential threats of the current state operation.

3.1.1 Strengths

- There is very open communication between police dispatch and RCMP members, as well as Municipal Enforcement officers and Community Peace Officers. The detachment is right outside the door of the 911 and dispatch centre.
- Emergency communications staff can learn about file outcomes. Team members expressed this is a large feature compared to larger communications centres where it is unlikely that information regarding specific calls makes it back to communications. It was reported that the closure provided is greatly appreciated by communications staff.
- Emergency communications team has a very high level of local knowledge.
- Only having to prioritize calls for service from residents of St. Albert ensures that service levels are maintained. Larger centres are taking calls from multiple municipalities, some of which have a higher volume of priority calls than St. Albert. Lower priority St Albert calls would get pushed down the queue to deal with higher priority calls from other municipalities.

3.1.2 Weaknesses

- Employees noted working with a small group of the same people can provide opportunities for personalities to collide. Long twelve (12) hour shifts in the same room create a restrictive and intimate environment that can exacerbate problems.
- There are concerns that the volume of calls managed by the St. Albert emergency communication services results in an unsustainable cost structure.
- There are concerns that fire dispatch is even less cost sustainable because of relatively low call volumes and higher salaries within the collective agreement that governs those employees.
- There are two (2) separate unions for Police and Fire dispatch, which can create a disconnect between the services and the employees of the two centres.

3.1.3 Opportunities

- Potential to generate revenue by contracting PSAP, call-taking and dispatch services to other municipalities.
- Potential to decrease expenses by amalgamating or contracting current services to an external service provider.
- Potential for increased grant revenues if two PSAPs continue to be operated. The Province of Alberta expects to increase grant funding in 2022. Grants are provided on a per-centre basis. If two (2) separate centres are operated, revenues are estimated to increase from \$403,000 to \$863,074 annually.

3.1.4 Threats

- There are impending and expensive NG911 and related infrastructure upgrades required to meet upcoming Canadian Radio-television and Telecommunications Commission (CRTC) regulations. There are also potential upgrade costs related to this infrastructure within 3-5 years following implementation.
- There are significant considerations if St. Albert were to provide emergency communication services to other municipalities:
 - St. Albert would be competing with neighbours to provide PSAP, call taking, and dispatching services and the market of potential customers is small in Alberta. Potential customers may have to be gained from neighbouring communities that are currently providing that service.
 - Primary research indicates that most communications centres provide contract services on a cost recovery basis. To acquire market share, St Albert would have to operate at a lower variable cost than competitors and do so to only break even.

3.2 Survey Results

A survey of St. Albert Emergency Communications staff was conducted to further understand the emergency response ecosystem in St. Albert and to garner the opinions and perspective of emergency communication team members. The survey was comprised of thirteen (13) open-ended questions for employees to provide input on the strengths and weaknesses of current operations as well as input regarding the implications of NG911. The survey was sent to twenty-nine (29) employees, with twenty-one (21) responses returned, a response rate of 72.4%. The survey was made available from October 21st, 2021 to October 31st, 2021. Key findings from the survey are summarized below.

Employees found the strengths of the current model lie in the high level of local knowledge and the resulting high quality of service provided by dispatchers.

Weaknesses within the current model included a disconnect between the two (2) dispatch centres, a lack of support between the centres, low staffing levels, and a lack of consistency regarding training.

The separation of the two (2) centres was noted in many surveys. It was provided that the separation of the centres allowed for a focus on the dispatching needs of the individual services (fire and police) and, as a result, a higher level of specialized knowledge. Employees expressed that the skills needed for each centre are different, therefore separating the centres has been beneficial. However, the disparate

centres also result in fewer staff available during major events, low information continuity, and a lack of cross training amongst employees. Additionally, employees expressed that there would be quicker responses to emergency situations if both centres were in the same building.

Employees were asked for opinions on the effects of the following models: Status quo, amalgamation of the two centres, obtaining an outside contractor to provide emergency communications services and, expanding St. Albert's current operations to insource i.e., sell emergency communications services to other municipalities.

Status Quo

Employees expressed that more workers are required to maintain the current state. It was expressed that the current model works, and significant changes are not required.

Amalgamation of the Two (2) Centres to One (1)

Employees expressed that there would be significant requirements for the transition to succeed. This includes cross training, a larger physical workspace, additional training, and the acquirement of security clearances for fire employees to work within police dispatch.

Hiring and External Contractor to Provide Emergency Communication Services

Employees expressed that fire is likely more readily outsourced but may face similar challenges that EMS has reportedly dealt with since its dispatch transitioned to Alberta Health Services (AHS). NAOCC was perceived by current employees to be at overflow capacity and below minimum staffing levels, which could result in poor service for St. Albert.

Employees indicated that there may be a financial benefit from receiving emergency communication services via a contractor but cautioned that residents may become displeased with the level of service provided by dispatchers that are unfamiliar with St. Albert.

Expand St. Albert's Emergency Services and Provide them to Other Municipalities for a Fee

Employees perceived this option as a challenging task. They expressed there would be a higher staffing requirement in this scenario. Furthermore, concerns were raised regarding uncertainty as to who St. Albert would offer services to, as it is perceived that the market for contractors is small.

NG911

On average, employees expressed that they have some knowledge of NG911 and its impacts. On a Likert scale of 1 – 5 employees scored themselves, on average, as "3" or having "some knowledge" Employees expressed they would require significant training and time to adjust to NG911 and its impacts on PSAP, call-taking and dispatching.

3.3 2019 Community Engagement Survey, Key Findings

In 2019, the City of St. Albert conducted a General Population Community Satisfaction Survey. Questions posed to residents included topics such as quality of life, safety issues, city services and programs, service expectations, financial planning, municipal leadership, and future priorities. Findings pertinent to emergency services and the city's fiscal management are detailed below. Of note, PSAP, call-taking and dispatch for both fire and police services comprise only a small portion of the operational elements that encompass the services offered to the public, and specifically, may have a very small influence on response times.

Services that most frequently met respondents' expectations (8 in 10 respondents or more) included:

- *Fire and Ambulance Services (93%, a decrease from 96% in 2017)*
- *Policing Services (82%, a decrease from 89% in 2017)*

"What would you say are the top factors contributing to a high quality of life in the City of St. Albert?"

- *Safe place to live/low crime rate/good policing/police presence 24%*

"Rate the extent to which each service has met your expectations:"

'Meets my expectations:'

- *Fire and Ambulance Services 85%*
- *Policing Services 79%*

"Why don't Policing Services fully meet your expectations?"

- *Poor/slow response time/takes too long for police to respond to calls 10% (2019), 14% (2017)*

"What one improvement to Policing Services would better meet your needs?"

- *Improve/quicker response time 3% (2019), 5% (2017)*

"Why don't Fire and Ambulance Services fully meet your expectations?"

- *Slow response time/wait times are too long 39% (2019), 5/16 (2017)*
- *Fire stations are old/outdated/in need of upgrades 3% (2019)*

"What one improvement to Fire and Ambulance Services would better meet your needs?"

- *Hire more staff/need more resources 29% (2019), 10/16 (2017)*
- *Improve/quicker response time 19% (2019), 3/16 (2017)*

"Why doesn't Bylaw Enforcement fully meet your expectations?"

- *Poor/slow response time 4% (2019)*

"What one improvement to Bylaw Enforcement would better meet your needs?"

- *Improve/faster response time 7%*

Respondents who felt they received "poor" or "fair" value for their tax dollars (n=127) most often explained that there is an **overspending, wasting money or lack of fiscal responsibility** (25%).

When asked what they considered the most important issue facing the St. Albert City Council today, 14% of respondents felt that there is a **misallocation of budget/how tax dollars are spent/overspending/fiscal responsibility** (increased from 10% in 2017).

Respondents who were dissatisfied with how the City is currently being run (ratings of 1 or 2 out of 5; n=66) most often explained that there **is poor budgeting, wasting of tax dollars or spending on unnecessary projects** (38%).

Finally, respondents were asked their opinions regarding top priorities for City Council. When asked what they thought should be Council's top priorities, respondents most often mentioned **ensuring budget or fiscal responsibility** (20%).

In summary, most St. Albert residents rated the service provided by the police and fire service as meeting their expectations and approximately a quarter of respondents rated the perceived safety of the City as a contributor to its high quality of life.

Respondents that expressed some level of dissatisfaction with service indicated that slow response times was responsible for some level of dissatisfaction, although the degree to which response time comprised dissatisfaction levels depended on the question, sometimes comprising only 3% of responses. However, as mentioned in the introduction of this section and pertinent to this review, PSAP, call-taking and dispatch for both fire and police services comprise only a small portion of the operational elements that encompass the services offered to the public, and specifically, may only have a very small influence on response times.

Fiscal responsibility and spending of tax dollars prudently was considered a top priority for 20% of respondents and those that were dissatisfied with the value received for taxes paid considered a lack of fiscal responsibility and wasting tax dollars as a significant reason (25% - 38% depending on how the response was elicited)

3.4 Environmental Scan

Unlike St. Albert, some emergency communication centres provide emergency communication services for other municipalities on a fee for service basis. Others use contract service providers to receive at least a portion of their emergency communication services. Municipalities of a similar size to St. Albert, such as Strathcona County and Parkland County, operate their 911 PSAP with fire dispatch, rather than police dispatch, and contract their police dispatch to the RCMP's Northern Alberta Operational Communications Centre (NAOCC).

To gather information regarding how other municipalities are meeting their needs, seven municipalities were identified with input from the project's Steering Committee for the purpose of conducting a jurisdictional review. Comparator municipalities included:

- City of Edmonton – Edmonton Police Service
- City of Spruce Grove - Fire Services
- Strathcona County - Fire Service
- RCMP (K Division) – Northern Alberta OCC
- The City of Grande Prairie – 911 Dispatch Centre
- The City of Lethbridge – Lethbridge Fire & Emergency Services
- Parkland County - Fire Services

At a very high level, the purpose of the jurisdictional review was to gain a preliminary understanding of the current approaches to 911 PSAP, call-taking and dispatch services delivery in the Province of Alberta. Specific attention was given to volume, staffing requirements, customers and clients, technology and

operating and capital costs and revenues if applicable. The following is a capture of organizational learnings and promising practices, all for consideration when arriving at the most appropriate forward-looking solution for the City of St. Albert.

Common Themes

All PSAP's across Canada are amid the biggest transformation of the 911 system in decades, part of a global shift to modernize emergency communications. The challenge has been daunting and fraught with unknowns in the areas of costs and staffing requirements to manage and support the new workflows. NG911 is expected to make it easier for emergency responders to locate callers and respond more rapidly to their needs. It will also allow the public to communicate with PSAP's in expanded and more sophisticated ways such as text and video. All of this will allow PSAP's to gather, analyze and respond more effectively to the information they receive.

It is understood that funding is a primary challenge with the cost of new technology. Despite uncertainty surrounding NG911 costs, there is a commonly shared belief that costs will be significant, leaving smaller municipalities more reliant on larger centres who have developed greater capacity for the delivery of these services. All interjurisdictional stakeholders expressed that the transition to NG911, if implemented in a strategic and collaborative way amongst providers and users, will be a welcomed upgrade to public safety communication in Alberta and will respond to the public's expectations of enhanced services for their public safety tax dollars.

It was indicated widely that the impact of NG911 is still not fully understood, and that despite the final "go live" date being pushed back, there are still many agencies that are not prepared. In fact, some commented that having a moving 'target date' might have created complacency or shifting priorities.

Other jurisdictions provided a consistent message that PSAP's are only one component in the public health and safety network and system and that there is constant evolution occurring, most outside the control of the PSAP. They also indicated that investment into researching and understanding the opportunities that technology will bring and how this journey must be done collaboratively is vitally important. It was evident that there is a PSAP community in Alberta that recognizes these dynamics through the level of cooperation and willingness to share.

From a customer service standpoint, there was a shared acknowledgement that as the public becomes more adept at using advanced communication devices, their expectations of PSAP's are increasing. When a citizen calls 911, they are typically in a moment of crisis and expect help to be delivered swiftly and in a professional manner. Citizens expect that when they call 911, they will be located accurately, their information will be collected expeditiously, and assistance will be deployed rapidly.

Agencies felt strongly that PSAP's are uniquely positioned as 'information hubs' to integrate, evaluate and disseminate information by dispatching the appropriate resources when and to wherever needed. It is anticipated that NG911 will enable the delivery of text, video, images, and other forms of rich data. All felt that despite the unknowns surrounding costs and challenges, PSAP's will be able to enhance situational awareness and enable all emergency responders to perform their duties better and more safely.

With improvements to the capabilities of this innovative technology, increased expectations from the public and clients will be created. It is widely anticipated that the amount of time required to manage

the increase in work brought on by NG911 will become greater and increase exponentially. Operational challenges will include ensuring a seamless transition through robust change management processes, policy revision, technical support, increased vigilance for potential cyber security breaches, and extensive training. The benefits will come in the form of reporting improvements and more detailed metrics regarding call handling and dispatch performance.

A common topic of discussion was balancing the benefits of preserving local people with local knowledge delivering 911 and dispatch services versus potential cost efficiencies found through larger centres that contract services. Considering the capabilities that NG911 will bring to more accurately pinpoint caller location, the belief that the only way to guarantee an accurate and timely response to emergency calls is through PSAP employees' intimate knowledge of landmarks and terrain will not likely be held so steadfastly as true.

Municipalities aren't geographically bound by dispatch service providers anymore, a reality that will become even more apparent as NG911 reaches its full capabilities. The competitive nature of the 911 service marketplace' is causing municipalities to evaluate the feasibility of providing dispatch services. Influences such as AHS taking over EMS dispatch services and the resulting reductions in subsidies and the uncertainties of impending NG911 costs, have caused some service providing centres to look at their options. This is especially true if investments in staffing or technology and equipment upgrades have been minimal to date.

However, primary anecdotal evidence suggests that the level of service provided by dispatch providers can vary. Certain municipalities have switched their dispatch providers in order to increase response times for emergency services. Furthermore, municipalities have noted that approachability, quality assurance and overall organization of services are significant factors in deciding on a provider.

The loss of EMS dispatch to Alberta Health Services resulted in the loss of funding and staffing to the PSAP's that were delivering those services. Some stated that this migration of services to the AHS negatively impacted efficiencies gained by having those dispatch services located and controlled by one PSAP.

At the same time municipalities are experiencing the increased need for non-emergency communication services that overlap with emergency services such as municipal enforcement, alarm, and CCTV monitoring, etc.

The following subsections provides an overarching summary from each jurisdiction:

Edmonton Police Service (EPS)

Edmonton is the capital city of Alberta and is at the centre of the Edmonton Capital Region. The metro area has a population of 1,491,000 (2021) making it the second largest city in Alberta behind Calgary and the fifth largest municipality in Canada. The Edmonton metropolitan area includes the City of Edmonton and thirty-four (34) other municipalities in the surrounding area including St. Albert. The Edmonton Police Service's complement includes approximately 1,780 sworn officers and approximately 720 civilian members for a total of 2,500 employees.

The Edmonton Police Service's Operations and Command Centre (OICC) became fully operational in early 2020, providing front-line officers and investigators with real-time, accurate, and actionable

intelligence. Based on a recommendation that flowed from a recent review of their Communications Centre, the EPS is integrating the OICC with their Communications Centre. Intended outcomes include increased customer service and the provision of the best and most recent information and intelligence possible for front-line officers and investigators.

As of November 2021, the OICC has 98 full-time Emergency Communications Officers (ECOs), 5 part-time ECOs, 21 casual employees, 6 substantive supervisors and 2 acting supervisors. Of the 98 full-time ECOs, 45 are dispatch trained, 40 are evaluation trained, and 13 are 911 trained. The staffing at the OICC includes an operational support team focused on training and quality assurance and audio disclosure, and a business support team focused on administrative support & scheduling, statistical reporting and program management. The EPS also provides for its own redundancy (secondary) PSAP systems.

The EPS has and continues to make significant investments into this merger, including the technology to transform seamlessly and as effectively as possible into NG911. At present, the EPS enjoys a very operationally effective partnership with the City of St. Albert and other surrounding municipalities including Sherwood Park, Spruce Grove and Leduc. As well, due to proximity, there are EPS employees who reside in St. Albert and conversely, St. Albert employees who call Edmonton home, which allows for shared local knowledge on both environments.

The Edmonton Police Service are leaders in transforming how policing services are delivered. It is a common belief, and supported by research, that a vast majority, as much as 80%, of the behaviours that drive the work that police do is related to non-criminal issues such as mental health, addictions, and homelessness. The Edmonton Police Service is focusing on and driving their business by working with their partners in other sectors and working with them to build better system approaches that will reduce “reaction” and focus on upstream, proactive practices and policies.

The EPS main strengths include the ongoing strategic and financial commitment to NG911 and the creation of a real time, intelligence-led integrated approach to turning data into useable information that will support safer communities.

Lethbridge Fire Department Public Safety Communication Centre (PSCC)

Just over 100,000 people live in the City of Lethbridge and it is served by its own municipal police and fire services. The Lethbridge Police service has approximately 172 sworn officers and 61 civilian members for a total of approximately 233 employees. In 2003, the City of Lethbridge conducted a study that resulted in the amalgamation of the police and fire communications centres. Since then, they have seen many changes to the structure and way 911, call taking, and dispatching emergency services are delivered. The most recent change occurred in 2021 when Alberta Health Services removed medical dispatch from the City’s Public Safety Communication Centre. The City of Lethbridge has made significant infrastructure investments in their Centre since, including the investments required for the transition to NG911.

As a PSAP, the Centre manages 911 service delivery to the City of Lethbridge, twenty-five (25) municipalities and two First Nation communities. The centre provides police dispatching for the Lethbridge Police Service, with most of the remaining clients using 911 and fire dispatch services only. Two (2) of the clients, both First Nations, contract 911 services only. The Centre also dispatches the City of Lethbridge’s peace officers and monitors alarms for clients that include the airport and transit system.

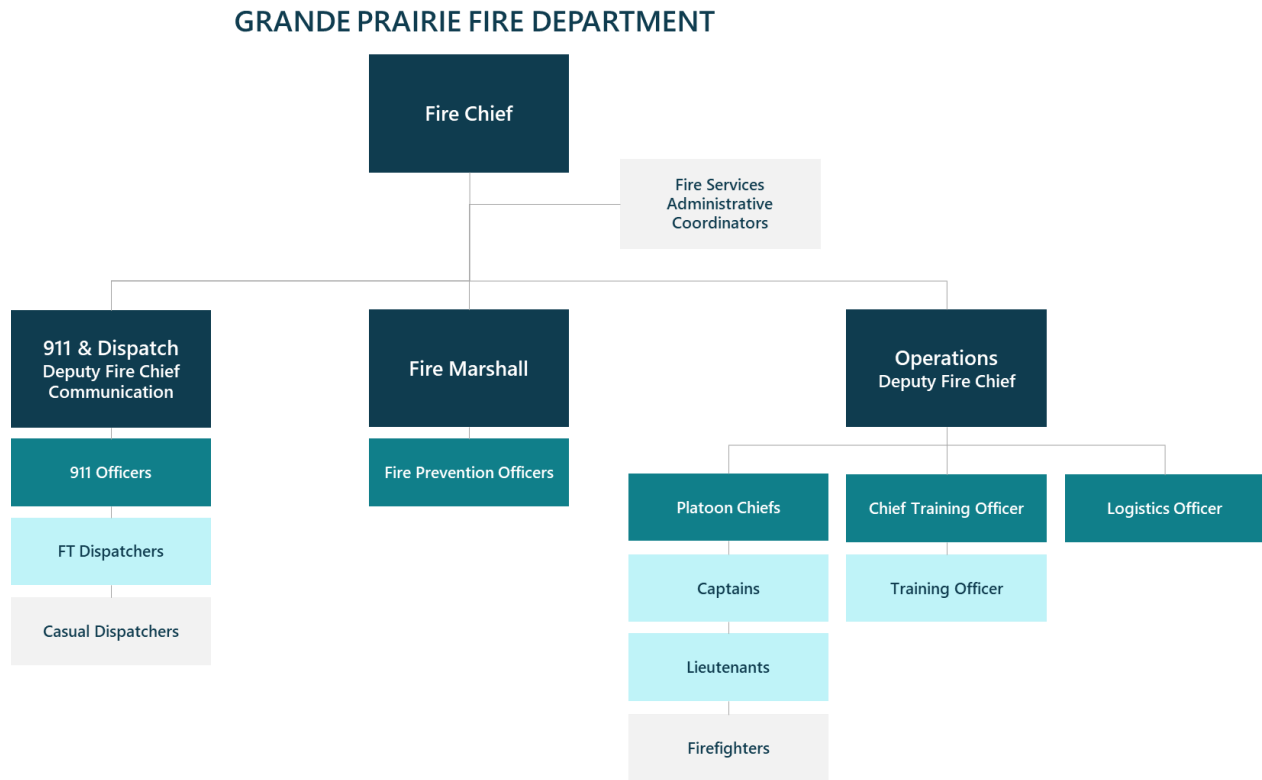
Last year the Centre managed 60,000 911 calls for their clients and entered 186,000 events in the Computer Aided Dispatch (CAD) system while serving a total population of approximately 160,000 people.

The Centre has a primary site with eight (8) stations (one spare in the room for overflow and TAC related calls). There is an additional station outside of the main room that is used for training and if required, can be used as overflow as well. The Centre has adopted 'flex shifting' to accommodate for business during peak times and there are a total of twenty-four (24) full-time employees and a pool of approximately six (6) part-time employees. Employees are cross trained across functions to add flexibility to the staffing model. here is a recognition of the value of consolidating IT Support, and they are working with their city partners to effectively leverage the economies of scale for costs and resources and to establish a clear, workable governance structure. This will enable future consolidation of IT resources. Lastly, the Centre manages its own secondary site seven blocks away at City Hall; however, alternative redundancy options are currently being explored.

The City of Grande Prairie 911 Dispatch Centre

Grande Prairie is the seventh largest city in Alberta and is home to approximately 70,000 people. The City of Grande Prairie's Protective and Social Service's Department is responsible for their 911 Dispatch Centre, fire service, policing through a contract with the RCMP, municipal enforcement, emergency management and social services. The 911 Dispatch Centre is the PSAP for most of northwestern Alberta, covering approximately 43% of the total land mass of the province while serving over sixty (60) fire departments. As the PSAP, the Centre transfers fire related calls to the appropriate fire service, but for matters requiring police and/or medical response, they forward callers to the appropriate dispatching agency, typically the RCMP and/or AHS. The Centre is operated by the Grande Prairie Fire Department under the direct supervision of a Deputy Chief and is divided into three (3) separate functions: dispatch, suppression, and administration.

Figure 14: Grande Prairie Fire Department Organizational Chart



The Centre has a staff of fourteen (14) full time employees and eight (8) casual or part-time staff. At the primary site, there are four (4) workstations of which three are staffed 24/7. There are three (3) additional workstations at the back-up site. Both the primary and secondary sites are active and ready for any surge in demand. The Centre does not do call taking or dispatching for municipal enforcement officers but does provide after-hours call taking and dispatch services for other municipal departments.

The City of Grande Prairie has already invested in preparation for NG911 with investments made to both a new CAD and Records Management System (RMS), new consoles and equipment and upgrades to radio systems.

RCMP (“K” Division) Northern Alberta Operational Communications Centre (NAOCC)

Currently, the RCMP has agreements with the government of Alberta to deliver policing services to twenty-two (22) First Nations and forty-seven (47) municipalities across the province in addition to their provincial policing contract.

The Operational Communications Centre (OCC) provides critical operational support to RCMP officers in the field. The RCMP’s Northern Alberta OCC (NAOCC) provides emergency and routine call handling of complaints to approximately 1.3 million Alberta residents. The NAOCC also performs dispatch, status keeping, and emergency CPIC maintenance for 136 RCMP Detachments and satellite offices throughout Alberta including the Alberta Sherriff’s and various municipal police agencies. “K” Division’s OCC Program runs two locations in Red Deer (south) and Edmonton (north) each of which is fully redundant of the other.

Over the past three years, the RCMP have been at the forefront of implementing and preparing for

NG911, proving significant modernization at a rapid pace. These innovative technologies for the OCC's will allow for improved service to their clients and the communities they serve. The RCMP has embraced NG911 opportunities to shift workload demands between the two OCC's, ensuring an ability to meet demands and allow for seamless integrated service delivery. Also provided are improved business continuity and resumption planning opportunities, improved 911 call answer responses, an ability to meet HR resourcing issues, and an ability to move to NG911 systems as they are rolled out.

The RCMP is currently working on identifying partnership and collaboration opportunities with neighboring PSAP's for interoperability efficiencies. The RCMP does not anticipate changes to NG911 are going to negatively impact them. Rather, they believe that being leaders in this transition to the modernization through NG911 will only enhance their ability to better serve their clients and create safer communities.

Strathcona Emergency Communications Centre (ECC)

Strathcona County is within the Edmonton Metropolitan Region and is both urban and rural in nature, with approximately 75% of the 103,000 people that makes up its population residing in Sherwood Park. The Strathcona ECC became a designated PSAP in 1985 and through service contracts, provides 911 call answer and fire dispatch locally and for thirty-four (34) other communities, serving a population of nearly 170,000. The ECC is a 24/7 operation staffed with thirteen (13) full-time civilian employees and a pool of seven (7) part-time employees.

The ECC is currently well underway with its NG911 transition and CAD/RMS replacement project, which will allow them to be ready to connect to NG911 as soon as it is available. This new infrastructure will create a more resilient system and improve their ability to manage call overload, natural disasters and improve the transferring and location tracking of 911 calls. As a primary PSAP and full Fire dispatch centre, the ability to receive and transfer information to and from multiple technology systems ensures the ability to maintain and manage the system into the future. The ECC consistently exceeds the targets set by the Provincial 911 Standards which mandate a level of call answer performance and accountability.

Spruce Grove Fire Services

Spruce Grove is a part of the Edmonton Metropolitan Area and lies just west of Edmonton with a population of approximately 39,000 people. The RCMP provide contract policing service to Spruce Grove and the City employs ten of its own municipal enforcement officers. Police dispatch and secondary PSAP responsibilities are handled by NAOCC.

Spruce Grove's Community Peace Officers investigate and enforce municipal by-laws and select provincial statutes under the Traffic Safety Act. Of interest, Spruce Grove has contracted dispatching services for their Community Peace Officers to Kyetech, a professional call-service company.

Spruce Grove has an integrated fire service that provides patient transport and ambulance services in addition to traditional fire department services such as fire suppression, dangerous goods response and other types of response needed to protect people, property, and the environment. They do not have a PSAP or fire dispatch centre, choosing instead to contract those services externally.

Spruce Grove has considered creating its own PSAP and communications centre, but it has been

deemed financially unfeasible. Spruce Grove acknowledges that by contracting this service, there is at times some that perceive a noticeable lack of local focus on the needs of Spruce Grove. It was pointed out that of all Parkland’s fire 911 and dispatch clients, Spruce Grove is the only one that delivers full time, 24/7 fire service to their community. All the other clients are staffed with volunteer fire fighters.

Spruce Grove also indicated regarding fire response standards. Spruce Grove has an expectation that a fire unit will be dispatched within sixty (60) seconds of a 911 call being received and that it is not always met. Their contractor, upon receiving a 911 call, provides a ‘pre-alert’ to the Spruce Grove Fire Service, but does not provide all the dispatch information (location) until it is recorded in the system. The risk, as it was explained, is that the delay leads to longer times to arrive on scene to provide emergency services. That timeliness, measured in seconds, does not have the same impacts for a volunteer service compared to one staffed 24/7.

Parkland County Emergency Communication Centre

Parkland County is a municipal district located west of Edmonton, with a population of 32,052 (2020), containing municipalities such as Spruce Grove, Stony Plain and Spring Lake. The Parkland County Emergency Communication Centre is located north of Stony Plain, with thirty (30) years of experience in emergency dispatch management. Parkland is an accredited centre of excellence in the field of Fire dispatch, recognized by the National Academy of Emergency Dispatch in 2011.

Parkland provides 911 PSAP and fire dispatch services to fifty-one (51) fire departments, including the City of Spruce Grove, Leduc County and Parkland County. Dispatching and status keeping services are provided for peace officers in Parkland County and Sturgeon County, as well as work alone monitoring in the county. Parkland is preparing to go live on NG911 capable infrastructure in 2022, beginning with a new phone and telecommunications system. Upgrades to the CAD system are expected in the next few years as well, in order to meet NG911 deadlines.

3.4.1 Communication Centres Summary

The following table provides a comparison of the centres discussed in the preceding Environmental Scan.

*Note: *Strathcona only had access to the 2019 and 2020 TELUS reports for 911 call numbers, and remaining years are pulled from an internal database which only records calls logged into CAD, which does not include dropped or abandoned calls.*

It is important to note that the communications centres listed in the following table perform several different services from each other. Some are pure PSAP’s while others are providing dispatch services to municipal enforcement officers or provide CPIC and other records management functions. Additionally, the table includes 911 call volumes only. Some of the centres, including St. Albert, are fielding a volume of non-emergency calls in addition to 911 calls. As such, the information is provided for informative, not comparative purposes.

Table 5: Summary of Communication Centres included in the Environmental Scan

PSAP / Dispatch Centre	Municipalities Served	Services Provided at Centre(s)	Average Annual 911 Calls, 2016-2020
------------------------	-----------------------	--------------------------------	-------------------------------------

St. Albert	St. Albert	<ul style="list-style-type: none"> • 911 PSAP • Police Dispatch • Fire Dispatch • Peace Officer Dispatch 	13,914
Edmonton Police	Edmonton	<ul style="list-style-type: none"> • 911 PSAP • Police Dispatch 	414,415
Lethbridge	Lethbridge, 25 municipalities and 2 First Nations communities	<ul style="list-style-type: none"> • 911 PSAP • Police Dispatch • Fire Dispatch 	52,143
Grand Prairie	65 municipalities, including: Grand Prairie, Peace River, Fort Vermillion	<ul style="list-style-type: none"> • 911 PSAP • Fire Dispatch 	63,753
RCMP OCC	136 RCMP Detachments and satellite offices throughout Alberta (NAOCC and SAOCC)	<ul style="list-style-type: none"> • Secondary PSAP 911 Call Answering • Police Dispatch • Non-Emergency Police Call Taking 	220,397
Strathcona	35 communities, including Strathcona County	<ul style="list-style-type: none"> • 911 PSAP • Fire Dispatch • Peace Officer Dispatch 	48,483
Parkland	51 Fire Departments, including City of Spruce Grove, Parkland County, Leduc County	<ul style="list-style-type: none"> • 911 PSAP • Fire Dispatch • Peace Officer Dispatch 	TBD

4 Potential Future State Models

The following subsections describe potential models for St. Albert to deliver its emergency communications services. The following criteria, as provided in St. Albert’s RFP for this study, were considered for each of the service model options and include:

- People:** Considerations regarding impacts to employees in the dispatch centres and how centres would be staffed.
- Processes:** Considerations regarding impacts to operations and administrative functions including time for implementation, staffing and training, as well as the location of the dispatch centres.
- Customer impact:** Considerations regarding current customers (residents of St. Albert), as well as potential future customers, and potential partners.
- Technology:** Considerations regarding required investments to technological infrastructure.
- Financial impact:** Analysis based on projected revenues and expenses. Each model uses 2023 as the first year in which new assumptions are implemented.

4.1 Status Quo

In a status quo alternative, the City of St. Albert would not make changes to the existing service model. The police dispatch and fire dispatch centres would continue to operate separately, and the 911 PSAP would continue to operate within the police dispatch centre. The fire dispatch would continue to act as a secondary PSAP.

People

- This option would not have an impact on the employees of the PSAP and dispatch centres.

Processes

- This option would not have an impact on the processes for incoming calls, call transfers, dispatch, and processing structures.
 - Police and Municipal Enforcement would continue to share a dispatch which provides efficiency when transferring between the two. Also allows for 24/7/365 availability for Municipal Enforcement.
 - Fire would continue to provide public education administration duties, severe weather alerts, emergency radio network monitoring and issue dangerous goods permits.
 - Fire dispatch continues as the secondary PSAP.

Table 6: Services Provided by Area, Status Quo

	RCMP Detachment	Fire Hall #3	Contracted
Primary PSAP	✓		
Secondary PSAP		✓	
Police Dispatch	✓		
Fire Dispatch		✓	
ME Dispatch	✓		
After Hours PW		✓	

Customer Impact

- This option would not have an impact on customers i.e., the residents of St. Albert.
- Local knowledge would be retained within St. Albert dispatchers.
- Customers who are unsure on who to call for a concern (e.g., RCMP or MES/CPO) will continue to be able to call one number for services without getting re-directed to various lines.

Technology

- The PSAP and dispatch centres are not currently NG911 compliant. Both centres would require significant infrastructure upgrades by March 2025 to meet the CRTC compliance mandate including a new call handling system, recording system, CAD and GIS.
 - The Primary PSAP and police dispatch centre can purchase Solacom equipment and pay annual costs to use the RCMP Solacom network infrastructure. This option is available solely because of St. Albert's current policing contract with the RCMP.
 - The Secondary PSAP and fire dispatch would not have the option to use the RCMP Solacom network infrastructure. Therefore, additional NG911-compliant infrastructure would be required to ensure that fire dispatch and the secondary PSAP meet NG911 standards.

Financial Impact

- A financial analysis has been conducted for this scenario, with the net cost from 2022-2031 outlined below. The financial analysis utilizes the following assumptions:
 - The service delivery model would not change from the current state.
 - Grant revenues would increase to a total of \$863,074 in year 1 based on recent changes to grant funding proposed by the Province of Alberta¹, as provided in Table 38 in Appendix 1. This funding is comprised of both primary and secondary PSAP funding amounts.
 - Expected initial police dispatch NG911 infrastructure and technology costs of \$92,162 in year 1, including \$3,581 in training costs. Annual recurring costs for three seats beginning with \$24,777 in year 1, increasing at an average rate of 1.4%, as per "St. Albert Solacom Cost", provided in Table 37 in Appendix 1.
 - Expected initial fire dispatch NG911 infrastructure and technology costs of \$976,000 in year 1, with recurring costs of \$95,000 each year, as per "NG 9-1-1 Planning – Creative Telecom Consulting Report". Details are provided in Appendix 1. Costs are estimated based on one seat.
 - Regular salaries are based on the current costs to operate each centre. Salaries have been inflated based on average historical salary increases, as per Table 36 in Appendix 1. Police dispatch salaries have been increased by 1.82% annually, and fire dispatch salaries have been increased by 1.91% annually.
 - Benefits have been estimated at 25% of regular salaries, based on historical expenses.
 - Casual salary expenses for police dispatch have been estimated to remain at the 2022 projected levels - there are no expected changes to employee structuring.
 - Overtime and other salary expenses from 2023 and onwards have been extrapolated based upon average annual historical costs from 2017-2021.

¹ as per '911 funding sharing options draft'

- Fire repairs and maintenance and miscellaneous costs from 2023 and onwards have been extrapolated based upon average annual historical cost from 2017-2021.

Table 7: Projected Revenues and Costs for Status Quo

	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Revenues										
Emergency Response Fees	98,000	98,000	98,000	98,000	98,000	98,000	98,000	98,000	98,000	98,000
Grants	305,000	765,074	765,074	765,074	765,074	765,074	765,074	765,074	765,074	765,074
Total Revenue	403,000	863,074	863,074	863,074	863,074	863,074	863,074	863,074	863,074	863,074
Expenses										
Police Salaries	1,128,400	1,176,676	1,190,376	1,209,832	1,229,642	1,249,812	1,270,350	1,291,261	1,312,553	1,334,232
Police Expenses	243,300	266,425	269,850	274,714	279,666	284,709	289,843	295,071	300,394	305,814
Total Police	1,371,700	1,443,101	1,460,226	1,484,546	1,509,308	1,534,521	1,560,193	1,586,332	1,612,947	1,640,046
Fire Salaries	462,800	462,025	462,425	470,134	477,990	485,996	494,155	502,470	510,943	519,579
Fire Expenses	195,206	177,534	177,634	179,561	181,525	183,526	185,566	187,645	189,763	191,922
Total Fire	658,006	639,559	640,059	649,695	659,515	669,522	679,721	690,115	700,707	711,501
NG911 Investment	-	1,096,519	120,642	120,843	121,055	121,277	121,604	121,953	122,328	122,727
Total Expenses	2,026,406	3,175,879	2,217,627	2,251,784	2,286,578	2,322,021	2,358,218	2,395,100	2,432,681	2,470,975
Net	-1,623,406	-2,312,805	-1,354,552	-1,388,710	-1,423,504	-1,458,946	-1,495,144	-1,532,026	-1,569,607	-1,607,900

4.2 Amalgamation

There are two alternative amalgamation options; having the fire communications centre become the PSAP and primary dispatch centre or having the police communications centre become the PSAP and primary dispatch centre. St. Albert would retain all the services it currently provides in both these options.

PSAP and Dispatch Located at Fire Hall

There are several problematic challenges for the communications centre to be amalgamated to a fire-based operation.

It is possible for fire dispatch to take over the Primary PSAP responsibilities, however it is not possible for fire to take over RCMP call taking and dispatch. For a myriad of reasons, it is unlikely the RCMP would authorize RCMP call-taking and dispatch in a non-RCMP building.

Additionally, a fire-based communications centre would not be eligible to upgrade to Solacom NG911 compliant infrastructure provided by the RCMP, which is a cost-effective option. It would require a significant investment into separate NG911 compliant technological infrastructure.

Finally, it has been noted that Fire Hall #3 does not have the space to expand a communication centre to additional seats, therefore this option would require relocation.

Based on the reasons outlined, the option of amalgamating dispatch services at the current fire dispatch centre is not a feasible option.

PSAP and Dispatch Located at Police Detachment

Alternatively, the option of amalgamating fire dispatch services at the current primary PSAP and police dispatch centre has been evaluated below.

The current police dispatch and PSAP is significantly larger than fire's; however, it is not large enough to absorb the additional resources that would come from fire without some adjustments or additions to physical space. As per St. Albert's internal analysis, this would entail the addition of four (4) FTEs to the primary PSAP and dispatch centre. These positions would be covered by the four (4) current fire dispatch employees.

People

- Employees would require cross-training to ensure they are able to manage call-taking and dispatching both fire and police, to dispatch ME officers, to provide the current administrative services that are provided to each service, and to update CPIC and related information management systems.
- All dispatchers would be required to meet RCMP background checks and protocols to access the facility and dispatch calls.
- In the present state, police dispatchers and call-takers are represented by CUPE Local 5141, and fire dispatchers are represented by IAFF Local 2130. Whereas overlapping jurisdiction exists between

CUPE Local 5141 and IAFF Local 2130, an application to the labour board would be made to amend certifications; this scenario presumes the Labour Relations Board decision would deem jurisdiction fully to CUPE Local 5141 based on the larger number of members and call volume type; this determination is not certain.

- Police and Municipal Enforcement officers would continue to share the same dispatch.

Processes

- Amalgamation would have an impact on fire dispatch operations during the move to the new centre. During the transition, the police dispatch centre would have to cover for fire dispatching calls. This would require additional administrative work to ensure files are securely stored and organized until fire dispatching systems are operational.
- The PSAP and police dispatch centre would require an additional seat to cover fire dispatching, and physical capacity for two (2) additional seats.
- 911 calls would continue to be received at the PSAP at the Maloney Place RCMP detachment. Fire calls would not be transferred, but rather taken and dispatched within.
- Non-emergency fire calls would continue to be taken at Fire Hall 3, and public works after hours calls would be directed to the amalgamated centre. Other current fire responsibilities, such as public education administration duties, severe weather alerts, emergency radio network monitoring and issue dangerous goods permits would be done at police dispatch.
- A new secondary PSAP would be required, which can be provided by centres such as Parkland and Strathcona at no expense. The contract centre would, in turn, receive the secondary PSAP provincial funding for St. Albert.
 - Keeping the secondary PSAP to be kept within St. Albert would require additional investment into NG911 compliant technology which would only be used in extremely rare, emergency situations. Therefore, it is much more cost-efficient to contract secondary PSAP services to an external provider, with the only “cost” being the lost secondary PSAP grant revenues.

Table 8: Services Provided by Area, Amalgamation

	RCMP Detachment	Fire Hall #3	Contracted
Primary PSAP	✓		
Secondary PSAP			✓
Police Dispatch	✓		
Fire Dispatch	✓		
ME Dispatch	✓		
After Hours PW	✓		

Figure 15: Emergency Communication Services, Amalgamation to Police Communication Centre

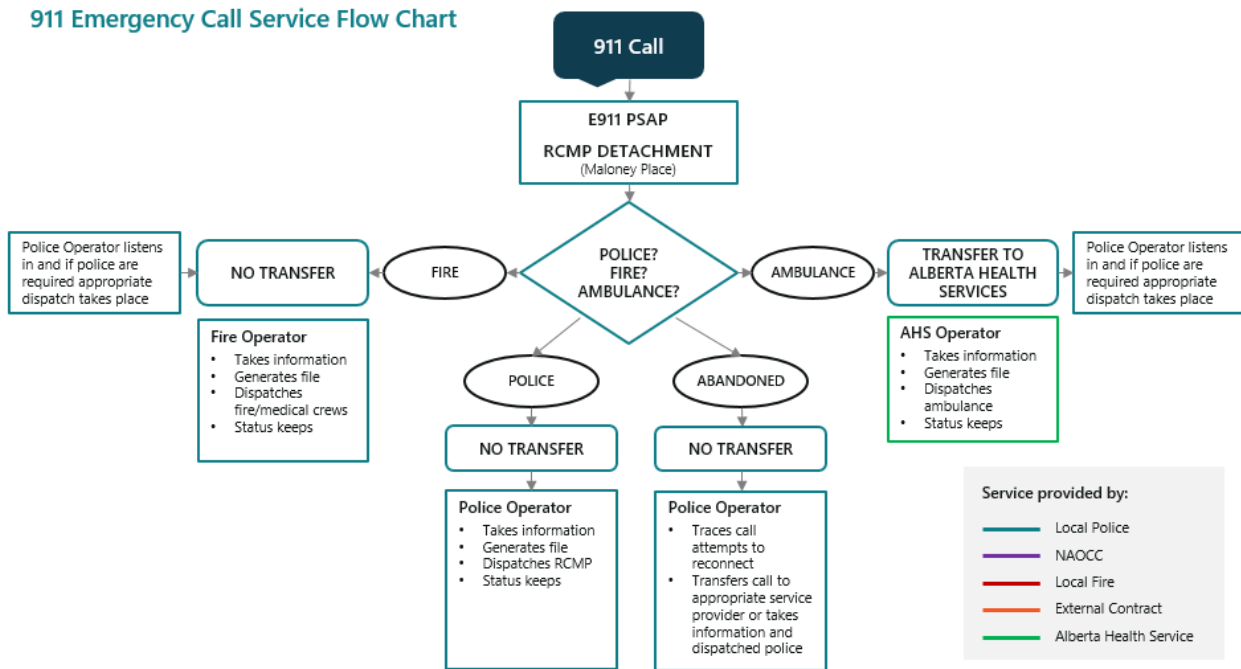
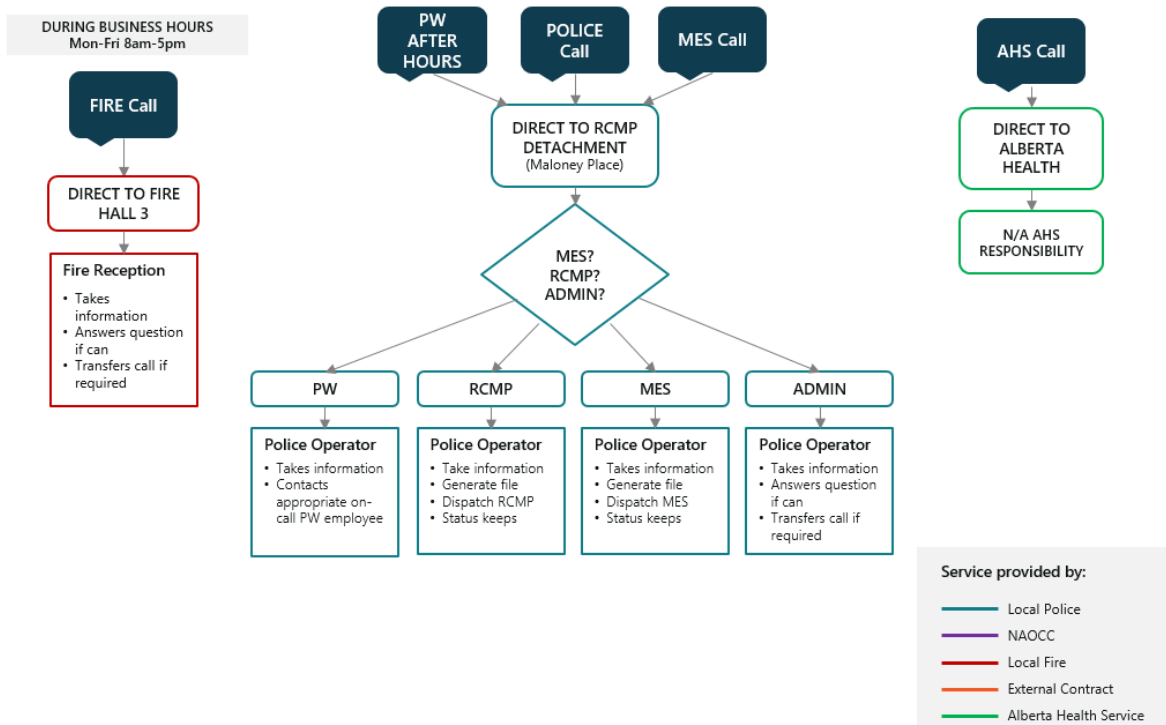


Figure 16: Non-Emergency Communication Services, Amalgamation to Police Communication Centre

Non-Emergency Call Service Flow Chart



Customer Impact

- There may be efficiencies gained with fire dispatch in the same location as the PSAP and police dispatch that could result in even higher customer service levels.
- Local knowledge would be retained within St. Albert through local dispatchers.

Technology

- The PSAP and dispatch centres are not currently NG911 compliant. With the requirement to meet NG911 standards by March 2025, the amalgamated centre would require significant infrastructure upgrades to meet the compliance mandate. This would require a new call handling system, recording, CAD and GIS.
 - Since the amalgamated centre would be located at the RCMP detachment, the RCMP Solacom systems could be utilized for PSAP and police dispatch.
 - Consideration would need to be given to the installation of fire related CAD/RMS software and systems, which are different than the RCMP and MES systems. This would require discussions on how to set up fire systems and software most effectively within this paradigm.

Financial Impact

A financial analysis has been conducted for this scenario, with the net cost from 2022-2031 outlined below. The financial analysis below was conducted under the following assumptions:

- An additional four (4) FTEs would be required to be added to the PSAP and police dispatch. Salaries and benefits have been adjusted to add for four (4) positions at the average police dispatch salary rate. Salaries have been adjusted to increase based on average historical salary increases, as per Table 36 in Appendix 1. Police dispatch salaries have been estimated to increase by 1.82% annually. Benefits have been estimated at 25% of annual regular salary costs, based on historical benefits expenses.
- Based on conversations with internal stakeholders, it is likely that renovations would be required for the dispatch centre to accommodate for capacity increases. Cost estimates are unknown at the time of this review and have not been included in this section.
- Training costs: Internal cross-training has been identified to be required for all dispatchers and projected at a cost of \$20,000 (2023).
- Repairs and maintenance costs, although immaterial, are incurred on fire's profit and loss statements (P&L). There are no repairs and maintenance costs on the police-based communications center P&L. These are assumed reside with the RCMP. Technically, the federal government is paying for 10% of these costs in the police-based scenario – albeit at a value that is immaterial to total cost.
- Continued costs related to Fire systems and software, as well as record management are still required. Costs may increase if fire systems are included on all seats and consoles.
 - Continued annual costs related to fire IT systems have been estimated at \$40,006 based on 2021 and 2022 costs.
- Grant revenues would increase to a total of \$689,453 in year 1 based on proposed changes to grant funding by the Province of Alberta, as per "911 funding sharing options draft". These grants include funding for primary PSAP.
- Expected initial NG911 infrastructure and technology costs of \$92,162 in year 1, including \$3,581 in

training costs. Annual recurring costs beginning with \$33,036 in year 1, increasing at an average rate of 1.4% would be incurred as well, as per "St. Albert Solacom Cost".

- Overtime salary expenses from 2023 and onwards have been extrapolated based upon average annual historical cost from 2017-2021.
- With the addition of the fire dispatching employees to the amalgamated centre, it is expected that casual work would decrease from historical levels. The average combined casual/other salary expense from 2017-2021 was approximately \$167,000. It is assumed that the amalgamation and cross training would decrease the need for casual time. It is therefore assumed that the annual casual salary expense would be \$100,000 in 2023 onwards.

Table 9: Projected Revenues and Expenses - Amalgamation - Police

	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Revenues										
Emergency Response Fees	98,000	98,000	98,000	98,000	98,000	98,000	98,000	98,000	98,000	98,000
Grants	305,000	591,453	591,453	591,453	591,453	591,453	591,453	591,453	591,453	591,453
Total Revenue	403,000	689,453	689,453	689,453	689,453	689,453	689,453	689,453	689,453	689,453
Expenses										
Police Salaries	1,128,400	1,490,545	1,515,140	1,540,183	1,565,681	1,591,643	1,618,078	1,644,994	1,672,400	1,700,305
Police Expenses	243,300	360,442	346,591	352,852	359,226	365,717	372,326	379,055	385,906	392,882
Total Police	1,371,700	1,850,987	1,861,731	1,893,034	1,924,907	1,957,360	1,990,404	2,024,049	2,058,306	2,093,187
Fire Salaries	462,800	-	-	-	-	-	-	-	-	-
Fire Expenses	43,306	43,306	43,306	43,306	43,306	43,306	43,306	43,306	43,306	43,306
Total Fire	506,106	43,306	43,306	43,306	43,306	43,306	43,306	43,306	43,306	43,306
NG911 Investment	-	128,778	34,189	34,458	34,740	35,037	35,472	35,938	36,437	36,970
Total Expenses	2,029,706	2,023,072	1,939,226	1,970,798	2,002,953	2,035,703	2,069,182	2,103,292	2,138,049	2,173,463
Net	-1,626,706	-1,333,618	-1,249,773	-1,281,345	-1,313,500	-1,346,249	-1,379,728	-1,413,839	-1,448,595	-1,484,010

4.3 Contract to External Service Providers

Many municipalities in Alberta contract PSAP, call-taking and dispatch services to larger municipalities. The RCMP OCCs have generally provided police dispatching services and municipalities such as Strathcona County, Parkland County, Grand Prairie and Lethbridge are examples of 911 PSAP and fire dispatch providers.

St. Albert is unique in that it operates its own 911 PSAP, police dispatching and fire dispatching services. Furthermore, St. Albert does not provide contracting for these services to smaller municipalities, therefore revenues are limited to grants and emergency response fees. It should be noted as well that in other police and fire detachments, the non-emergency calls and most records management functions are covered by administrative employees rather than dispatchers. For example, a call to St. Albert's RCMP detachment is answered by an emergency communications staff member while in most detachments it would be a clerk or administrative personnel.

There are several alternatives which could be undertaken where services are contracted to external PSAP and dispatch centres. Scenarios where the primary PSAP is kept within St. Albert provide financial incentive because grant revenues would continue to be incurred by St. Albert. There is also an incentive for the primary PSAP to be kept at the RCMP detachment to utilize RCMP Solacom infrastructure at a much lower cost than investing in similar technology independently. This drastically reduces NG911 costs while allowing grant revenues to primarily offset salary expenses.

The following service models have been outlined in the sections below, with justification as to why they have been analyzed and include:

- A. Contract out Fire Dispatch and Primary PSAP
- B. Contract out Fire Dispatch and Secondary PSAP
- C. Contract out Police Dispatch and Secondary PSAP
- D. Contract out Secondary PSAP and both dispatch centres
- E. Contract out Primary and Secondary PSAP, and both dispatch centers

A – Contract out Fire Dispatch and Primary PSAP

In Alberta, it is common for external fire dispatch providers to combine their dispatch with the 911 Primary PSAP service. This allows contract service providers to offset their costs by being eligible for primary PSAP grant revenues. It is also common because the RCMP OCCs provide secondary PSAP services with police dispatching for many municipalities, therefore it makes sense for fire dispatch services to be combined with primary PSAP services.

Based on conversations with fire dispatch service providers, it is uncommon and often not an option for providers to take on dispatch-only contracts. In theory, if St. Albert were to contract out fire dispatch services, it can be assumed that primary PSAP services would be contracted as well to the same provider. 911 PSAP and fire dispatch services would be most likely contracted to a provider such as Strathcona County, Parkland County or Grand Prairie. In addition to PSAP and fire dispatching, services provided by external providers include:

- Alarm monitoring
- Receiving and evaluating incoming emergency telephone calls
- Generating call sheets that can be emailed, faxed, or loaded into FirePro2
- Alerting fire personnel with paging tones
- Email alerts to third party applications
- Conducting emergency fire dispatch protocols with certified operators
- Complete two-way radio communications and FDM CAD compliance

People

- Fire dispatchers would be laid off in accordance with the existing collective bargaining agreement.
- The only fire position that would be maintained in-house would be an administrative support position.
- There would be no immediate effect on dispatching employees in the police dispatch unit. However, an assessment would be essential regarding the number of employees required, since the 911 PSAP would be contracted out.

Processes

- The implementation and changeover would require mapping to format and load data, configuring and integrating data, integrating radio communications as well as staff training. It is expected that the process would require several weeks for the transition of the 911 PSAP and fire dispatching to be completed.
- 911 calls would be received by the contracted PSAP. Police calls would be transferred to the St. Albert RCMP detachment. Fire calls would be dispatched by the contractor.
- Non-emergency fire calls would continue to be taken at Fire Hall #3 by the fire administrative support position, and public works, municipal enforcement, and non-emergency police calls would be taken at the RCMP detachment on a 24/7 basis.
- The secondary PSAP would be located at police dispatch (police dispatch would have to be upgraded to NG911 anyway).

Table 10: Services Provided by Area, Contract Fire Dispatch and Primary PSAP

	RCMP Detachment	Fire Hall #3	Contracted
Primary PSAP			✓
Secondary PSAP	✓		
Police Dispatch	✓		
Fire Dispatch			✓
ME Dispatch	✓		
After Hours PW	✓		

Figure 17: Emergency Communication Services, Contract out Fire Dispatch and Primary PSAP

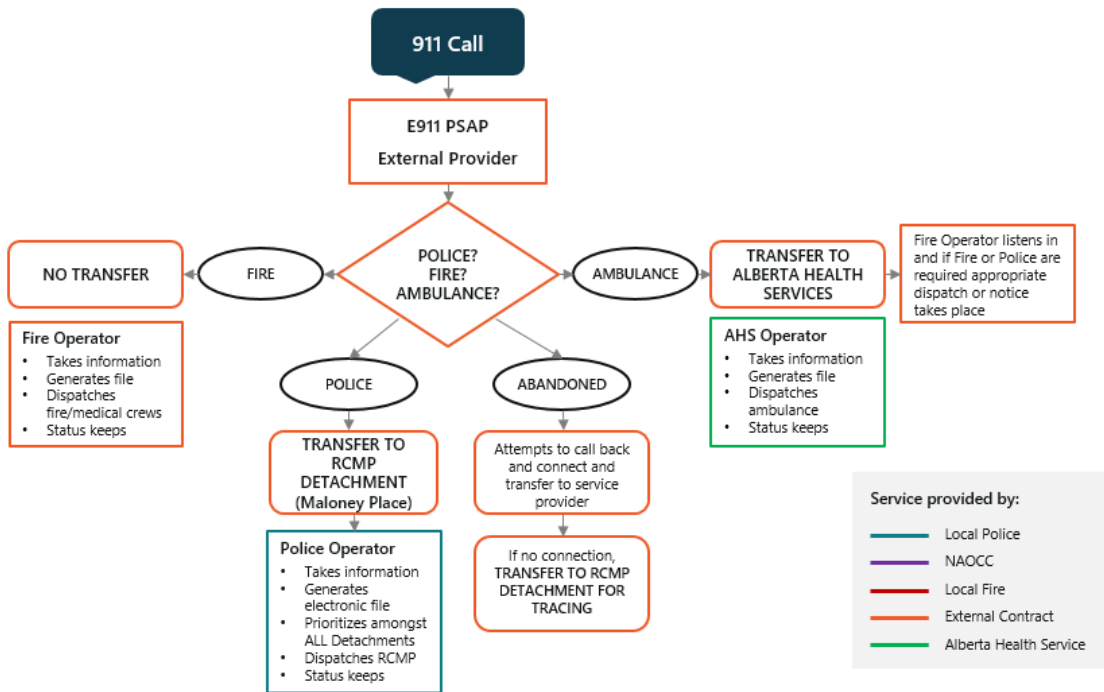
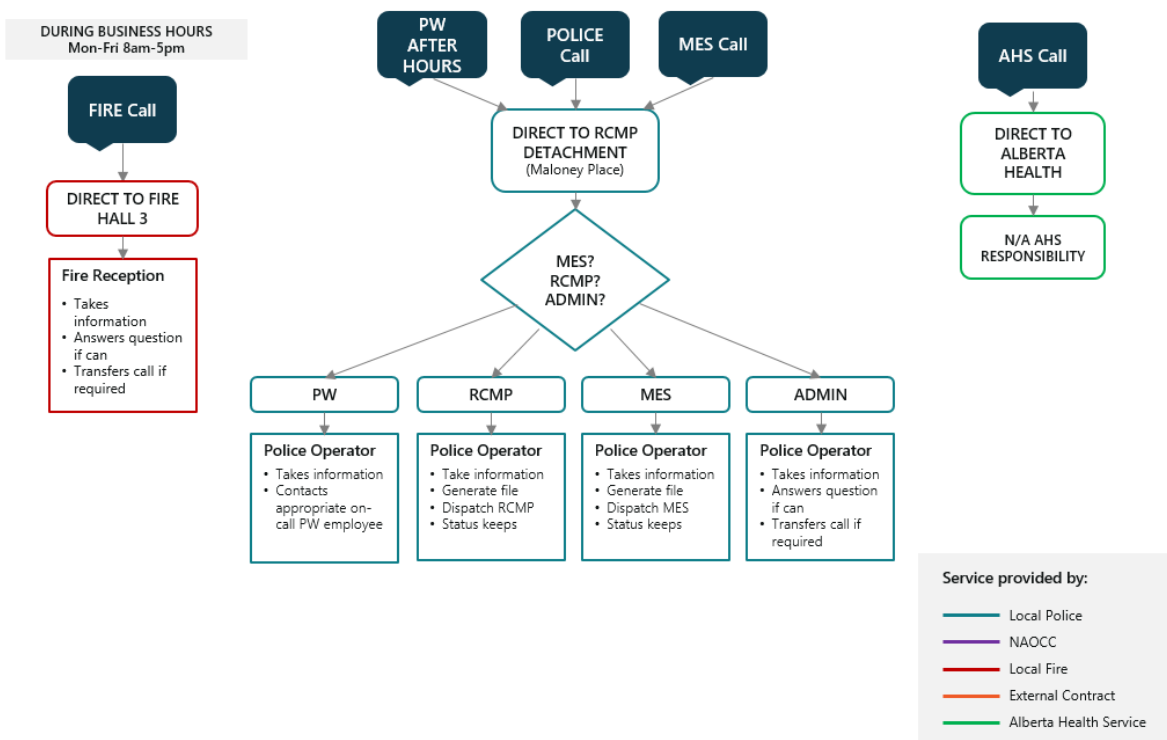


Figure 18: Non-Emergency Communication Services, Contract out Fire Dispatch and Primary PSAP



Customer Impact

- Contracting services to an external provider may create concerns for customers because non-local PSAP and fire dispatchers would not be as familiar with St. Albert, its geography, and landmarks.
 - However, the two services contracted likely have the least impact on customers. The PSAP service does typically not require local knowledge and the volume of calls directed to fire annually is the lowest of the St. Albert's emergency services
 - This concern may be further reduced with forthcoming NG911 technology's ability to leverage advanced GPS and location services to identify the location of an emergency call.

Technology

- Contracting out fire dispatch services would place the responsibility of NG911 upgrades on the external provider. This allows St. Albert to avoid upgrade costs and mitigates complicated logistical planning as well, which can increase administrative and operational workloads.
- Although these costs would be mitigated for fire, the police dispatch centre would be required to meet NG911 technological requirements.
 - The secondary PSAP and police dispatch centre can purchase Solacom equipment and pay annual costs to use the RCMP Solacom network infrastructure.

Financial Impact

- Service providers charge an annual fee for fire dispatch on a per capita basis. The contract costs in this scenario have been determined based on estimates provided by current providers.
- A financial analysis has been conducted for this scenario, with the net cost from 2022-2031 outlined below. The financial analysis below was conducted utilizing the following assumptions:
 - Grant revenues would decrease to a total of \$271,621 in year 1 based on proposed changes to grant funding by the Province of Alberta, as per "911 funding sharing options draft".
 - Since the primary PSAP would be contracted out, revenues based on secondary PSAP funding would be received, as the detachment could serve as the secondary PSAP.
 - Expected initial NG911 infrastructure and technology costs of \$92,162 in year 1, including \$3,581 in training costs. Annual recurring costs beginning with \$24,777 in year 1, increasing at an average rate of 1.4% would be incurred as well, as per "St. Albert Solacom Cost".
 - Regular salaries are based on the current people costs to operate the centre. Salaries have been adjusted to increase based on average historical salary increases, as per Table 36 in Appendix 1. Police dispatch salaries have been estimated to increase by 1.82% annually.
 - Benefits have been estimated at 25% of annual regular salary costs, based on historical annual benefits expenses.
 - Contract costs for 911 PSAP and fire dispatching is estimated at \$140,755 annually, with an additional \$50,000 in annual administrative costs, as per cost estimates provided by external stakeholders and St. Albert, explained in Table 33 in Appendix 1.
 - Overtime salary expenses from 2023 and onwards have been extrapolated based upon average annual historical cost from 2017-2021.
 - The average casual salary expense from 2017-2021 was \$132,282, and 2021 and 2022 projections are \$82,000. With the addition of a third (3) dispatcher in recent years, casual work has decreased. Based on these factors, it is assumed that the annual casual salary expense would remain \$82,000 from 2023 and onwards.

Table 11: Projected Revenues and Expenses - Contract out Fire Dispatch and Primary PSAP

	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Revenues										
Emergency Response Fees	98,000	98,000	98,000	98,000	98,000	98,000	98,000	98,000	98,000	98,000
Grants	305,000	173,621	173,621	173,621	173,621	173,621	173,621	173,621	173,621	173,621
Total Revenue	403,000	271,621	271,621	271,621	271,621	271,621	271,621	271,621	271,621	271,621
Expenses										
Police Salaries	1,128,400	1,176,476	1,190,176	1,209,632	1,229,442	1,249,612	1,270,150	1,291,061	1,312,353	1,334,032
Police Expenses	243,300	266,425	269,850	274,714	279,666	284,709	289,843	295,071	300,394	305,814
Total Police	1,371,700	1,442,901	1,460,026	1,484,346	1,509,108	1,534,321	1,559,993	1,586,132	1,612,747	1,639,846
Fire Salaries	462,800	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000
Fire Expenses	191,906	-	-	-	-	-	-	-	-	-
Fire Contract	-	140,755	140,755	140,755	140,755	140,755	140,755	140,755	140,755	140,755
Total Fire	654,706	190,755	190,755	190,755	190,755	190,755	190,755	190,755	190,755	190,755
NG911 Investment	-	120,519	25,642	25,843	26,055	26,277	26,604	26,953	27,328	27,727
Total Expenses	2,026,406	1,754,175	1,676,423	1,700,944	1,725,918	1,751,353	1,777,352	1,803,840	1,830,829	1,858,329
Net	-1,623,406	-1,482,554	-1,404,802	-1,429,323	-1,454,297	-1,479,732	-1,505,731	-1,532,219	-1,559,208	-1,586,708

B – Contract out Fire Dispatch and Secondary PSAP

Alternatively, this scenario outlines fire dispatch services and secondary PSAP services contracted to an external provider, rather than the primary PSAP.

Fire dispatching service providers generally expressed they would require the primary PSAP to be contracted with fire dispatching to offset costs through the grant revenues provided for operating the primary PSAP. However, there was at least some interest in doing from a service provider with a close and strategic relationship with St. Albert. This would be an extremely attractive proposition for St. Albert because St. Albert would retain primary PSAP funding while contracting fire dispatching at a reasonable cost. The specific cost for this scenario as provided by the potential service provider has been included in the financial model for this scenario.

It must be noted that risks exist with contracting fire dispatch and the secondary PSAP to a contractor. While a willingness was expressed to take on fire dispatch and the secondary PSAP services as part of a strategic partnership with St. Albert, external factors unrelated to emergency communication services can affect this partnership in the future. A price increase or request that primary PSAP service be contracted instead of the secondary or a lack of interest in continuing the contract as is would dampen the advantages of this model.

People

- Fire dispatchers would be laid off in accordance with the existing collective bargaining agreement.
- The only fire position that would be maintained in-house would be an administrative support position.
- There would be no immediate effect on dispatching employees in the police dispatch unit.

Processes

- The implementation and changeover would require mapping to format and load data, configuring and integrating data, integrating radio communications and staff training. It is expected that the process would require several weeks for the transition to be completed.
- Non-emergency fire calls would continue to be taken at Fire Hall #3 by a fire administrative support position.
- The primary PSAP and police dispatch, public works, municipal enforcement, and non-emergency police calls would be taken and managed at the police communications centre.

Table 12: Services Provided by Area, Contract Secondary PSAP and Fire Dispatch

	RCMP Detachment	Fire Hall #3	Contracted
Primary PSAP	✓		
Secondary PSAP			✓
Police Dispatch	✓		
Fire Dispatch			✓
ME Dispatch	✓		
After Hours PW	✓		

Figure 19: Emergency Communication Services, Contract out Fire Dispatch and Secondary PSAP

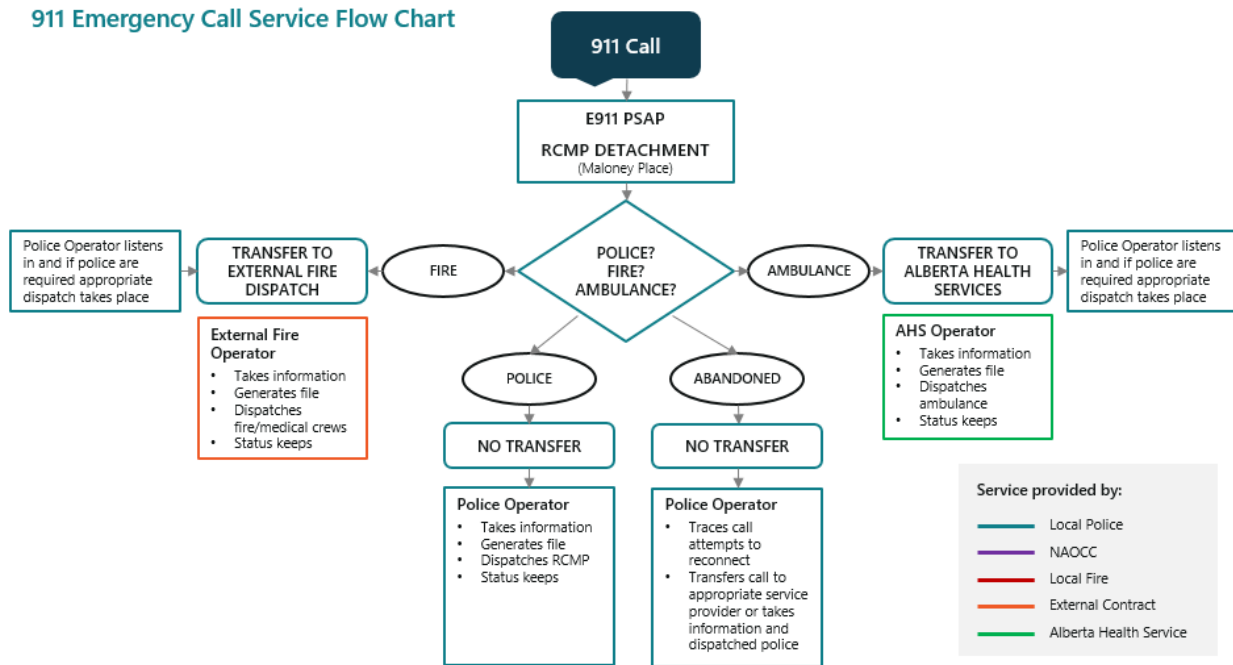
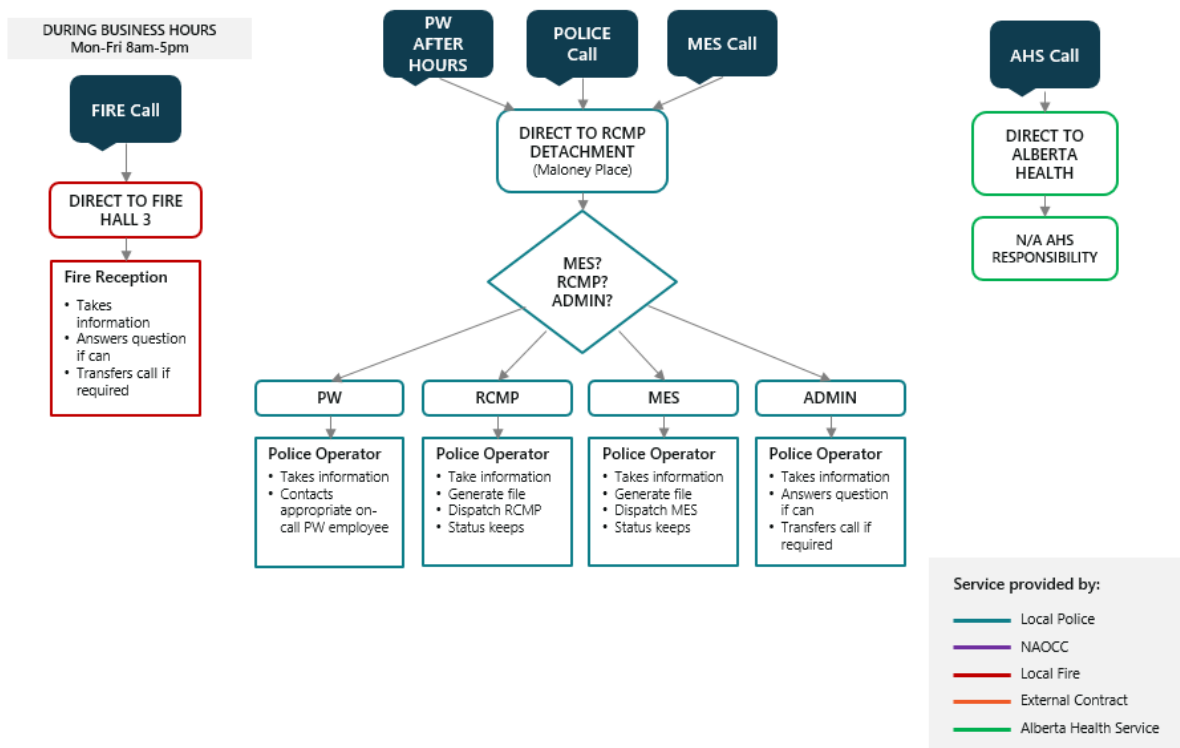


Figure 20: Non-Emergency Communication Services, Contract out Fire Dispatch and Secondary PSAP



Customer Impact

- Contracting services to an external provider may create concerns for customers because non-local fire dispatchers would not be as familiar with St. Albert, its geography, and landmarks.
 - However, contracted fire services would likely have the least impact on customers. The fire calls are annually the lowest of the St. Albert's emergency services.
 - Further, this concern is reduced with forthcoming NG911 technology's ability to leverage advanced GPS and location services to identify the location of an emergency call.
- The secondary PSAP is a redundancy and only utilized in an emergency where the primary PSAP is incapacitated. Contracting it externally may have little or no effect on customer service.

Technology

- Contracting out fire dispatch services would place the responsibility of NG911 upgrades on the external provider. This allows St. Albert to avoid upgrade costs but also mitigate complicated logistical planning which can increase administrative and operational workloads.
- Although these costs would be mitigated for fire, the police dispatch centre would be required to meet NG911 requirements.
 - The Primary PSAP and police dispatch centre purchase Solacom equipment and pay annual fees to use the RCMP Solacom network infrastructure.

Financial Impact

- Service providers charge an annual fee for fire dispatch on a per capita basis. The contract costs in this scenario have been determined based on estimates provided by current providers.
- A financial analysis has been conducted for this scenario, with the net cost from 2022-2031 outlined below. The financial analysis below was conducted utilizing the following assumptions:
 - Grant revenues would total \$689,453 in year 1 based on proposed changes to primary PSASP grant funding by the Province of Alberta, as per "911 funding sharing options draft".
 - Regular salaries are based on the current people costs to operate the centre. Salaries have been adjusted to increase based on average historical salary increases, as per Table 36 in Appendix 1. Police dispatch salaries have been estimated to increase by 1.82% annually.
 - Benefits have been estimated at 25% of annual regular salary costs, based on historical annual benefits expenses.
 - Expected initial NG911 infrastructure and technology costs of \$92,162 in year 1, including \$3,581 in training costs. Annual recurring costs beginning with \$24,777 in year 1, increasing at an average rate of 1.4% would be incurred as well, as per "St. Albert Solacom Cost".
 - Contract costs for 911 PSAP and fire dispatching is estimated at \$178,421 annually, with an additional \$50,000 in annual administrative costs, as per cost estimates provided by external stakeholders and St. Albert, explained in Table 33 in Appendix 1. The fire dispatching provider in this model has a higher cost per capita than other providers, hence the increase in annual costs.
 - Overtime salary expenses from 2023 and onwards have been extrapolated based upon average annual historical cost from 2017-2021.
 - The average casual salary expense from 2017-2021 was \$132,282, and 2021 and 2022 projections are \$82,000. With the addition of a third (3) dispatcher in recent years, casual work has decreased. Based on these factors, it is assumed that the annual casual salary expense would remain \$82,000 from 2023 and onwards.

Table 13: Projected Revenues and Expenses - Contract out Fire Dispatch and Secondary PSAP

	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Revenues										
Emergency Response Fees	98,000	98,000	98,000	98,000	98,000	98,000	98,000	98,000	98,000	98,000
Grants	305,000	591,453	591,453	591,453	591,453	591,453	591,453	591,453	591,453	591,453
Total Revenue	403,000	689,453	689,453	689,453	689,453	689,453	689,453	689,453	689,453	689,453
Expenses										
Police Salaries	1,128,400	1,176,476	1,190,176	1,209,632	1,229,442	1,249,612	1,270,150	1,291,061	1,312,353	1,334,032
Police Expenses	243,300	266,425	269,850	274,714	279,666	284,709	289,843	295,071	300,394	305,814
Total Police	1,371,700	1,442,901	1,460,026	1,484,346	1,509,108	1,534,321	1,559,993	1,586,132	1,612,747	1,639,846
Fire Salaries	462,800	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000
Fire Expenses	191,906	-	-	-	-	-	-	-	-	-
Fire Contract	-	178,421	178,421	178,421	178,421	178,421	178,421	178,421	178,421	178,421
Total Fire	654,706	228,421	228,421	228,421	228,421	228,421	228,421	228,421	228,421	228,421
NG911 Investment	-	120,519	25,642	25,843	26,055	26,277	26,604	26,953	27,328	27,727
Total Expenses	2,026,406	1,791,841	1,714,089	1,738,610	1,763,585	1,789,020	1,815,018	1,841,507	1,868,496	1,895,995
Net	-1,623,406	-1,102,388	-1,024,636	-1,049,157	-1,074,131	-1,099,567	-1,125,565	-1,152,053	-1,179,043	-1,206,542

C – Contract Police Dispatch and Secondary PSAP to NAOCC

Police dispatch and secondary PSAP services could be contracted to an external provider such as the RCMP NAOCC. Since the 911 PSAP is presently operating concurrently with the police dispatch centre, the PSAP would be moved to the fire dispatch centre. Currently, St. Albert has police dispatching and the primary PSAP in one centre, as opposed to other municipalities which combine fire dispatching with the primary PSAP. In this model, the primary PSAP would be moved together with fire dispatch, and police dispatching would be contracted to the RCMP NAOCC.

Municipalities policed by the RCMP generally contract their police dispatching to the RCMP OCCs. St. Albert's current model is unique in that police dispatching is performed within the St. Albert RCMP detachment.

This model presents significant logistical and financial challenges. The current fire dispatch does not have capacity for additional seats. Therefore, a new location would be required for the addition of primary PSAP duties. Since the fire dispatch cannot meet its NG911 technological requirements through the RCMP Solacom systems, the purchase of other NG911 infrastructure would require a multi-million dollar investment over future years. It is valuable to understand how this model would function, as this would align St. Albert with similar municipalities in Alberta.

Services provided by an external police dispatch provider include:

- Secondary PSAP 911 call answering
- Non-emergency police call taking, including referrals (non-police calls) as required
- Police CAD file generation, dispatch services & status keeping
- Data base queries
- Emergency messaging services, during non-business hours
- Designated specific resource support for large-scale events

The RCMP detachment would continue to operate municipal enforcement call taking and dispatching, as well as officer safety status keeping, and vehicle checks and queries.

People

- The transfer of the PSAP from the police dispatch to fire dispatch would require additional staffing at the fire communications centre. A new or expanded location may be required to meet capacity requirements for the PSAP because there is no additional room for seats at Fire Hall #3.
- While most police dispatchers would be laid off, four (4) employees would be required for the non-emergency complaint taking and municipal enforcement services dispatch. This would be arranged in accordance with the collective bargaining agreement.
- An additional support staff for support duties including CPIC would be required for local police. Many of the CPIC duties are currently carried out by police dispatchers.
- Training would be required for current fire dispatch employees in the operation of the PSAP.
- "Bumping" of employees with less seniority would factor into the offering of positions within other areas of the City based on the existing collective bargaining agreement.

Processes

- It was indicated that the transition period should span approximately four (4) weeks.
- Police dispatching and the secondary PSAP would be contracted to NAOCC.
- The primary PSAP would be moved over to Fire Hall #3.
- The only change to the current structure of call administration would be that emergency police calls and non-emergency police calls after business hours would be transferred to NAOCC dispatch.

Table 14: Services Provided by Area, Contract Secondary PSAP and Police Dispatch

	RCMP Detachment	Fire Hall #3	Contracted
Primary PSAP		✓	
Secondary PSAP			✓
Police Dispatch			✓
Fire Dispatch		✓	
ME Dispatch	✓		
After Hours PW		✓	

Figure 21: Emergency Communications, Contract out Police Dispatch and Secondary PSAP

911 Emergency Call Service Flow Chart

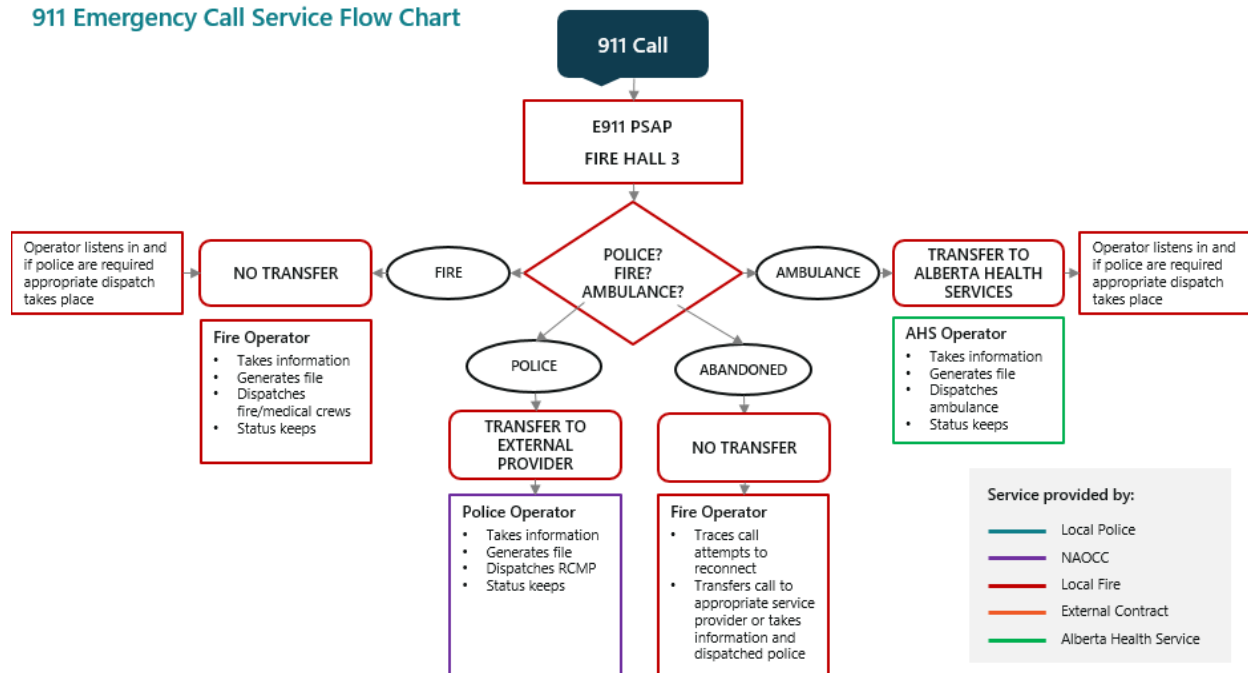
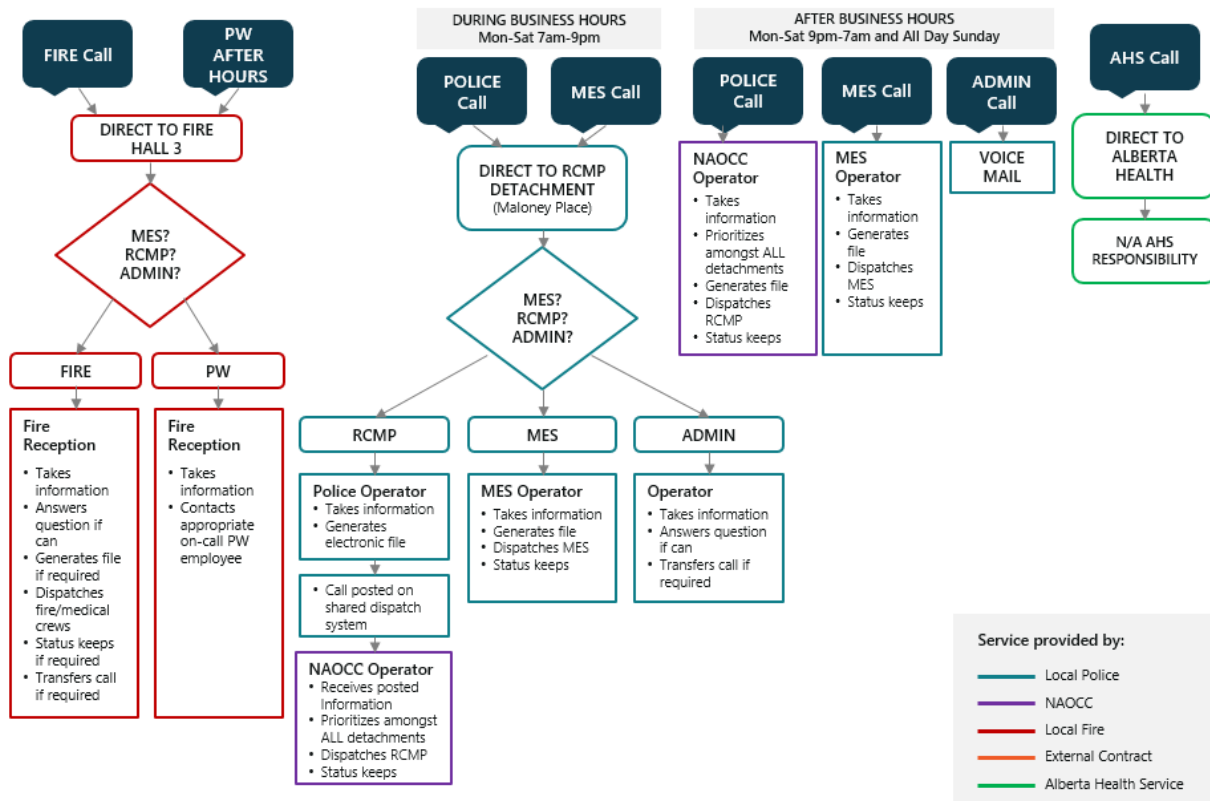


Figure 22: Non-Emergency Communications, Contract out Police Dispatch and Secondary PSAP



Customer Impact

- Effort would be required to not interrupt service during the changeover of the PSAP to the current fire dispatch centre. If a new centre is deemed to be required due to a lack of current space, this may increase service interruption risk.
- The risk has been identified that contracting police dispatch would result in less local knowledge and may decrease service quality. Operating local dispatching services is seen to allow for a high level of service of local service. Some of this risk may be mitigated for emergency calls with the accuracy of NG911 technologies.
- The RCMP and Municipal Enforcement officers would no longer share a common dispatch which may lead to a decrease in the fluidity of service provided by these groups

Technology

- Technological upgrades would be required to meet NG911 compliance for the 911 PSAP and fire dispatch centre.
 - The PSAP and fire dispatch would not have the option to use the RCMP Solacom network infrastructure. Therefore, alternative NG911-compliant infrastructure would be required to ensure that fire dispatch and the PSAP meets NG911 standards.

Financial Impact

- Investments into NG911 infrastructure for the 911 PSAP and fire dispatch centre would be required including a new PSAP and dispatch centre.
- Renovations or real estate costs would be required to house the PSAP and fire dispatch. Those costs are unknown at this time but would be expected to be material.
- A financial analysis has been conducted for this scenario, with the net cost from 2022-2031 outlined below. The financial analysis below was conducted utilizing the following assumptions:
 - It is assumed that four (4) additional dispatch employees would be required in the fire-based PSAP. Salaries and benefits have been adjusted to add for four (4) positions at the average fire dispatch salary rate in 2022. Two seats would be required for call taking and dispatching and would rotate on a 4 platoon system. Salaries have been adjusted to increase based on average historical salary increases, as per Table 36 in Appendix 1. Police salaries have been estimated to increase by 1.82% annually, and fire dispatch salaries have been estimated to increase by 1.91% annually.
 - Fire benefits have been estimated at 25% of regular annual salary costs, based on historical annual benefits expenses.
 - Overtime, casual and other salary expenses from 2023 and onwards have been extrapolated based upon average annual historical cost from 2017-2021.
 - Fire repairs and maintenance and miscellaneous costs from 2023 and onwards have been extrapolated based upon average annual historical cost from 2017-2021.
 - Grant revenues would increase to a total of \$675,502 in year 1 for the primary PSAP based on proposed changes to grant funding by the Province of Alberta, as per '911 funding sharing options draft' provided by St. Albert.
 - Expected NG911 infrastructure and technology costs of \$1,069,300 in year 1, with recurring costs of \$160,000 each year, with two less seats accounted for due to the contracting of police services, as per 'NG 9-1-1 Planning – Creative Telecom Consulting Report' provided by St. Albert.
 - Annual contract costs for 911 PSAP and fire dispatching is estimated at \$281,019, as per cost estimates provided by external stakeholders and St. Albert, explained in Table 32 in Appendix 1.
 - Local municipal enforcement dispatch costs are estimated at \$444,000 in year 1, increasing based on historical average salary increases annually, based on current police dispatch salary costs and benefits. Cost outlines can be found in Appendix 1, Table 35. Police CPIC and miscellaneous support costs are estimated at \$80,000 in year 1, as per "Dispatch Options – Appendix 1" provided by St. Albert, with annual increases based on historical average salary increases.

Table 15: Revenues and Expenses - Contract out Police Dispatch and Secondary PSAP

	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Revenues										
Emergency Response Fees	98,000	98,000	98,000	98,000	98,000	98,000	98,000	98,000	98,000	98,000
Grants	305,000	591,453	591,453	591,453	591,453	591,453	591,453	591,453	591,453	591,453
Total Revenue	403,000	689,453	689,453	689,453	689,453	689,453	689,453	689,453	689,453	689,453
Expenses										
Police Salaries	1,128,400	524,000	533,537	543,247	553,134	563,201	573,452	583,888	594,515	605,335
Police Expenses	243,300									
Police Contract		281,019	281,019	281,019	281,019	281,019	281,019	281,019	281,019	281,019
Total Police	1,371,700	805,019	814,556	824,266	834,153	844,220	854,471	864,907	875,534	886,354
Fire Salaries	462,800	801,773	815,963	830,425	845,162	860,181	875,487	891,085	906,981	923,181
Fire Expenses	195,206	262,471	266,018	269,634	273,318	277,073	280,899	284,799	288,773	292,823
Total Fire	658,006	1,064,244	1,081,981	1,100,058	1,118,480	1,137,254	1,156,386	1,175,884	1,195,754	1,216,004
NG911 Investment	-	1,069,300	160,000	160,000	160,000	160,000	160,000	160,000	160,000	160,000
Total Expenses	2,029,706	2,938,563	2,056,537	2,084,324	2,112,633	2,141,474	2,170,857	2,200,791	2,231,288	2,262,358
Net	-1,626,706	-2,249,109	-1,367,084	-1,394,871	-1,423,180	-1,452,021	-1,481,403	-1,511,338	-1,541,835	-1,572,905

D – Contract Police Dispatch, Fire Dispatch, and the Secondary PSAP to External Service Providers

The following model outlines a scenario where the primary PSAP and non-emergency call taking are the only services maintained within St. Albert. Police dispatch services would be contracted to the RCMP NAOCC. Fire dispatch and secondary PSAP services would be contracted to an external provider such as Strathcona, Parkland or Grand Prairie. The primary PSAP would continue to be operated at the RCMP detachment, as well as non-emergency call taking and municipal enforcement dispatch. In theory, this model would allow for St. Albert to retain primary PSAP funding while lowering annual expenses by contracting police and fire dispatch.

Services provided by NAOCC would include:

- Police CAD file generation, dispatch services & status keeping
- Data base queries
- Emergency messaging services, during non-business hours
- Designated specific resource support for large-scale events

Services provided by the external fire dispatch provider would include backup services as the secondary PSAP, as well as the following:

- Alarm monitoring
- Receiving and evaluating incoming emergency telephone calls
- Generating call sheets that can be emailed, faxed, or loaded into FirePro2
- Alerting fire personnel with paging tones
- Email alerts to third party applications
- Conducting emergency fire dispatch protocols with certified operators
- Complete two-way radio communications and FDM CAD compliance

In this service model, the primary PSAP would handle 911 calls, as well as non-emergency calls, including municipal enforcement dispatch, administrative calls, and assisting with CPIC duties. It is assumed that four (4) full-time dispatchers would be laid off, to reduce the number of seats to two (2), and total full-time dispatchers reduced to eight (8). There would be substantial cost savings in reducing the number of full-time dispatchers, and the remaining salary costs would be significantly subsidized by the primary PSAP grant funding.

In recent years, St. Albert increased the minimum staffing level in the primary PSAP and police dispatch by adding a third seat and increasing the number of full-time dispatchers to twelve (12). This reduced the number of casual hours required on an annual basis and increased the minimum staffing to ensure sufficient staff availability.

However, the risk exists in this model of reverting to the challenges that existed with staffing levels prior to the addition of the third seat. The minimum staffing level would decrease to one (1) from the current minimum of two (2), and casual salary costs would likely return to the levels prior to the addition of a third seat. Despite the cost savings gained from staffing fewer full-time dispatchers, the increase in casual salary costs as well as the risk of being at the minimum staffing level of one (1) dispatcher, create

challenges in this model. These costs have been reflected in the financial assumptions.

People

- Fire dispatchers would be laid off in accordance with the existing collective bargaining agreement.
- Four (4) police dispatchers would be laid off in accordance with the collective bargaining agreement.
- Increased casual staffing levels would be incurred due to the decrease in minimum staffing levels.
- “Bumping” of employees with less seniority would factor into the offering of positions within other areas of the City based on the existing collective bargaining agreement.

Processes

- It was indicated that the transition to contracted services would take approximately four (4) weeks.
 - The transition of internal non-emergency and municipal enforcement processes may take longer and more effort.
- The implementation and changeover of contracted fire dispatch services would require mapping to format and load data, configuring and integrating data, integrating radio communications and staff.
- This model assumes fire dispatching and the secondary PSAP would be contracted to a provider that indicated they would provide fire dispatch and secondary PSAP services due to their “strategic partnership” with St. Albert.
- Non-emergency fire calls would continue to be taken at Fire Hall #3 by the fire administrative support position.
- Non-emergency police calls, municipal enforcement dispatching, public works after hours, and administrative calls would continue to be taken at the RCMP detachment.

Table 16: Services Provided by Area, Contract Primary PSAP, Police and Fire Dispatch

	RCMP Detachment	Fire Hall #3	Contracted
Primary PSAP	✓		
Secondary PSAP			✓
Police Dispatch			✓
Fire Dispatch			✓
ME Dispatch	✓		
After Hours PW	✓		

Figure 23: Emergency Communication Services, Police and Fire Dispatching and Secondary PSAP Contracted Out

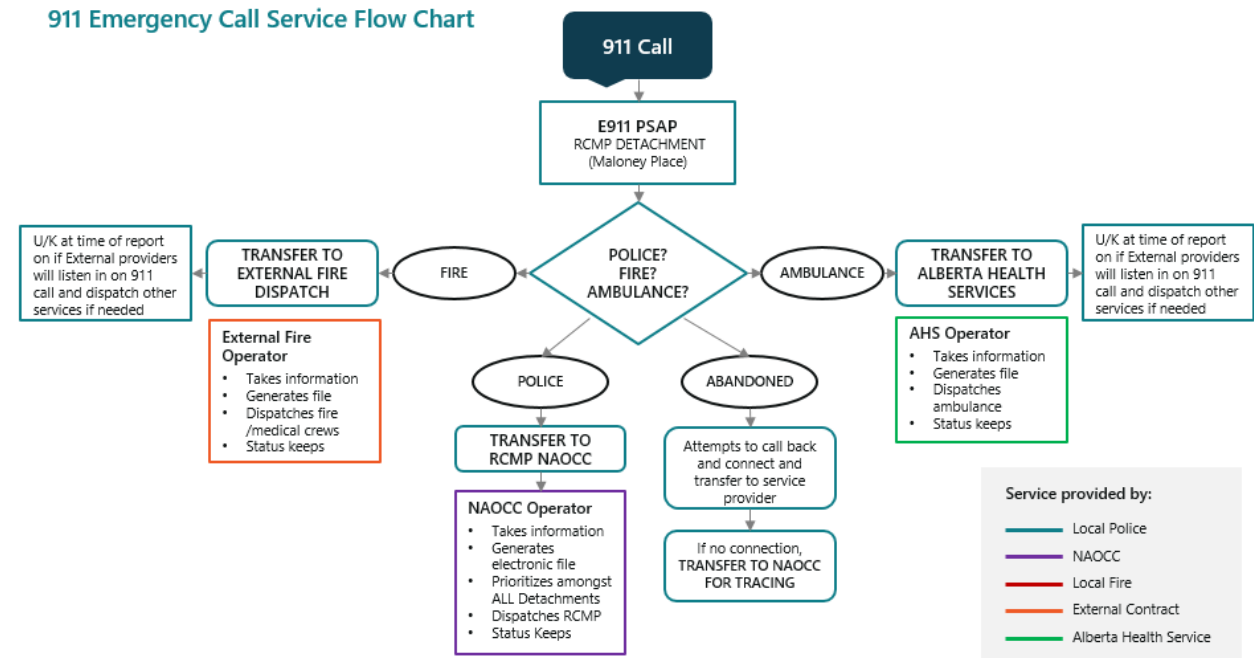
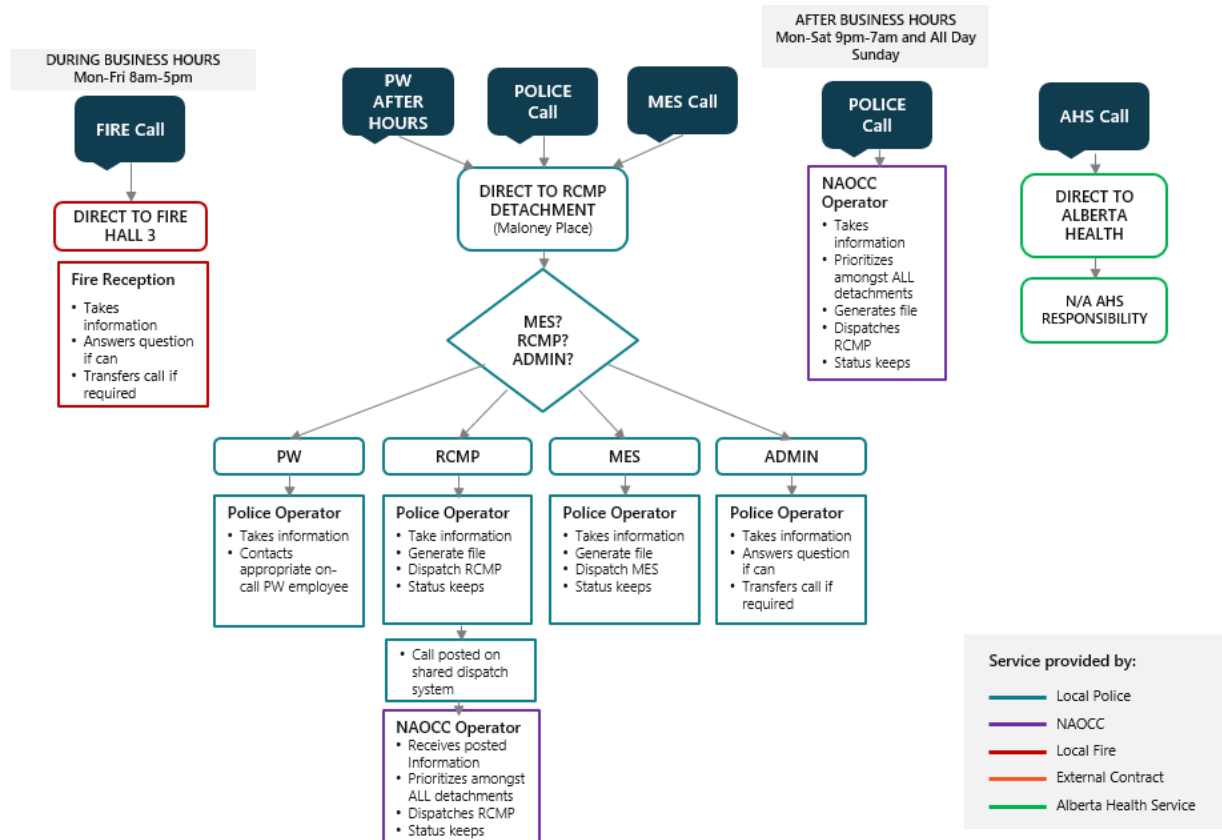


Figure 24: Non-Emergency Communication Services, Police and Fire Dispatching and Secondary PSAP Contracted Out



Customer Impact

- Contracting dispatching services to an external provider may create concerns for customers because non-local dispatchers would not be as familiar with St. Albert, its geography, and landmarks.
 - However, this concern may be reduced with forthcoming NG911 technology's ability to leverage advanced GPS and location services to identify the location of an emergency call.
- Municipal enforcement dispatch and non-emergency call taking would remain stationed within St. Albert at the RCMP detachment, providing residents with local dispatchers in those areas.

Technology

- Contracting out police and fire dispatch services would place the responsibility NG911 upgrades on the external providers. This would not only allow St. Albert to avoid additional upgrade costs but would also remove complicated logistical planning as well, which can increase administrative and operational workloads.
- Although these costs would be mitigated for fire and police dispatching, the primary PSAP would be required to meet NG911 technological requirements.
 - The Primary PSAP can utilize Solacom equipment and pay annual costs to use the RCMP Solacom network infrastructure.

Financial Impact

- An analysis has been conducted for this scenario, with the net cost from 2022-2031 outlined below. The financial analysis below was conducted under the following assumptions:
 - Grant revenues would total \$689,453 in year 1 based on proposed changes to grant funding by the Province of Alberta, as per "911 funding sharing options draft".
 - Expected initial NG911 infrastructure and technology costs of \$92,162 in year 1, including \$3,581 in training costs. Annual recurring costs beginning with \$16,518 (two (2) seats) in year 1, increasing at an average rate of 1.4% would be incurred as well, as per "St. Albert Solacom Cost".
 - Regular salary costs have been estimated for eight (8) full-time dispatching employees at the current average police dispatch salary, per Appendix 1. Salaries have been adjusted to increase based on average historical salary increases, as per Table 36 in Appendix 1. Salaries have been estimated to increase by 1.82% annually.
 - Casual salary costs are estimated to increase to the levels prior to the increase to 3 dispatchers at the centre, prior to 2018. Therefore, annual casual salary costs are estimated to increase to \$200,000.
 - Benefits costs have been estimated for eight (8) full-time employees at 25% of regular salary costs per employee, based on historical annual benefits expenses.
 - Contract costs for fire dispatching are estimated at \$178,421 annually, with an additional \$50,000 in annual administrative costs for non-emergency fire calls, as per cost estimates provided by external stakeholders and St. Albert, adjusted for annual increases based on historical fire salary increases.
 - Contract costs for police dispatching is estimated at \$281,019 annually, as per cost estimates provided by external stakeholders.

Table 17: Revenues and Expenses, Contract All Dispatch Services and Secondary PSAP

	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Revenues										
Emergency Response Fees	98,000	98,000	98,000	98,000	98,000	98,000	98,000	98,000	98,000	98,000
Grants	305,000	591,453	591,453	591,453	591,453	591,453	591,453	591,453	591,453	591,453
Total Revenue	403,000	689,453	689,453	689,453	689,453	689,453	689,453	689,453	689,453	689,453
Expenses										
Police Salaries	1,128,400	875,114	886,688	898,473	910,472	922,690	935,130	947,796	960,693	973,825
Police Expenses	243,300	161,587	164,480	167,426	170,426	173,481	176,591	179,757	182,981	186,264
Police Contract		281,019	281,019	281,019	281,019	281,019	281,019	281,019	281,019	281,019
Total Police	1,371,700	1,317,720	1,332,188	1,346,919	1,361,918	1,377,190	1,392,739	1,408,572	1,424,694	1,441,108
Fire Salaries	462,800	50,000	50,910	51,837	52,780	53,741	54,719	55,715	56,729	57,761
Fire Expenses	191,906									
Fire Contract	178,421	178,421	178,421	178,421	178,421	178,421	178,421	178,421	178,421	178,421
Total Fire	462,800	228,421	229,331	230,258	231,201	232,162	233,140	234,136	235,150	236,182
NG911 Investment	-	112,260	17,095	17,229	17,370	17,518	17,736	17,969	18,218	18,485
Total Expenses	2,026,406	1,658,402	1,578,614	1,594,405	1,610,489	1,626,870	1,643,616	1,660,677	1,678,062	1,695,775
Net	-1,623,406	-968,948	-889,160	-904,952	-921,036	-937,416	-954,162	-971,224	-988,608	-1,006,322

E – All Emergency Communication Services Contracted to an External Service Provider

The following scenario combines the two previous options and included contract all emergency communications services to an external service provider.

- Contracting out fire dispatch and 911 PSAP services to a provider such as Strathcona County or Parkland County
- Contracting out police dispatch services to a provider such as the RCMP NAOCC

This scenario allows for St. Albert to completely get out of the emergency communications business. In doing so, the only costs incurred by St. Albert would be from external contract costs, as well as in local non-emergency and municipal enforcement dispatch, local police CPIC and miscellaneous support, public works after hours and fire administrative support.

Local knowledge from local dispatchers would be lost, however NG911 technology would likely assist in mitigating these concerns for emergency calls. The primary goal of this service model would be for St. Albert to not deal with emergency communication services. In the long-term, this model has the least risk of significant future investments in PSAP and dispatching technology and infrastructure.

People

- Dispatch services would be operated externally, and most dispatchers and call takers would be laid off. There would be a few roles remaining in St. Albert to support operations, including:
 - Positions for local police non-emergency complaint taking and municipal enforcement dispatch including four (4) full-time employees, and casual workers.
 - A position for after-hours public works calls.
 - A position for Fire administrative support.
 - A position for Police CPIC and miscellaneous support.
- “Bumping” of employees with less seniority would factor into the offering of positions within other areas of the City based on the existing collective bargaining agreement.
- Training would be required for employees transitioning into new roles, which would be completed during the period in which services are changed over to external providers.

Processes

- The transition of dispatch services to external providers would require several weeks to accomplish.
- 911 calls would be received by the contracted PSAP. Police emergency and after-hours non-emergency calls would be transferred to the RCMP NAOCC, and fire calls would be processed within the external fire dispatch centre.
- Non-emergency fire calls would continue to be taken at Fire Hall #3 during office

Table 18: Services Provided by Area, Contract All Services

	RCMP Detachment	Fire Hall #3	Contracted
Primary PSAP			✓
Secondary PSAP			✓
Police Dispatch			✓
Fire Dispatch			✓
ME Dispatch	✓		
After Hours PW	✓		

hours, and public works, municipal enforcement, and business hours non-emergency police calls would be taken at the RCMP detachment.

- A secondary PSAP be arranged through the primary PSAP provider.

Figure 25: Emergency Communication Services – All Services Contracted Externally

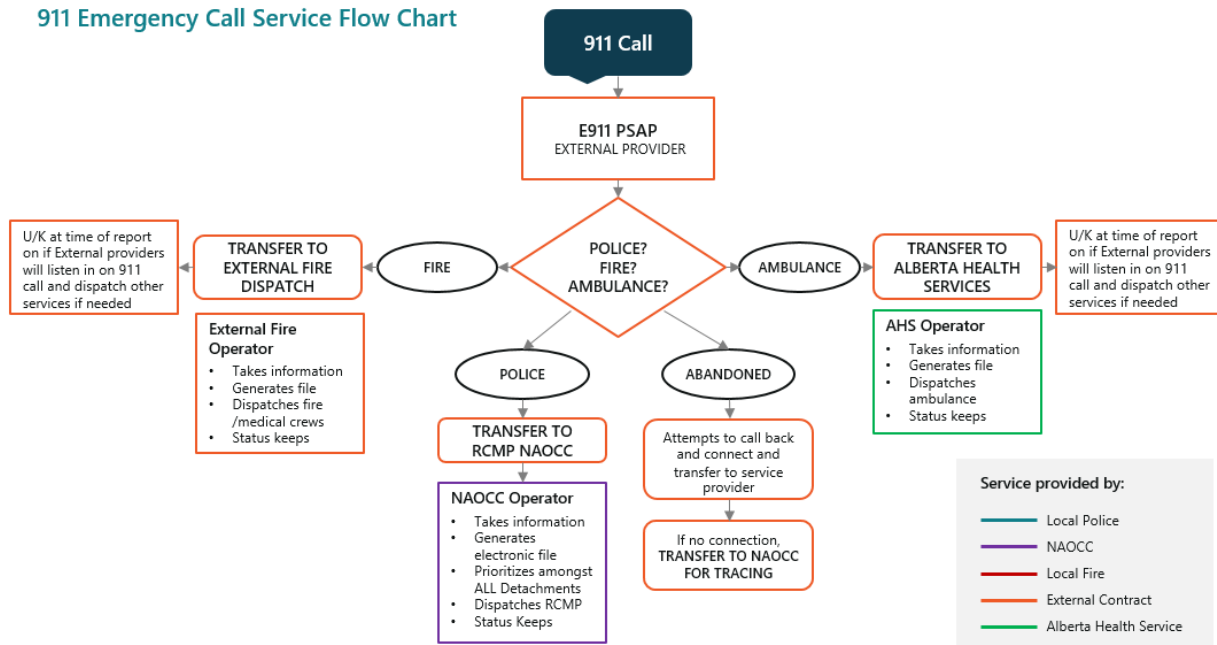
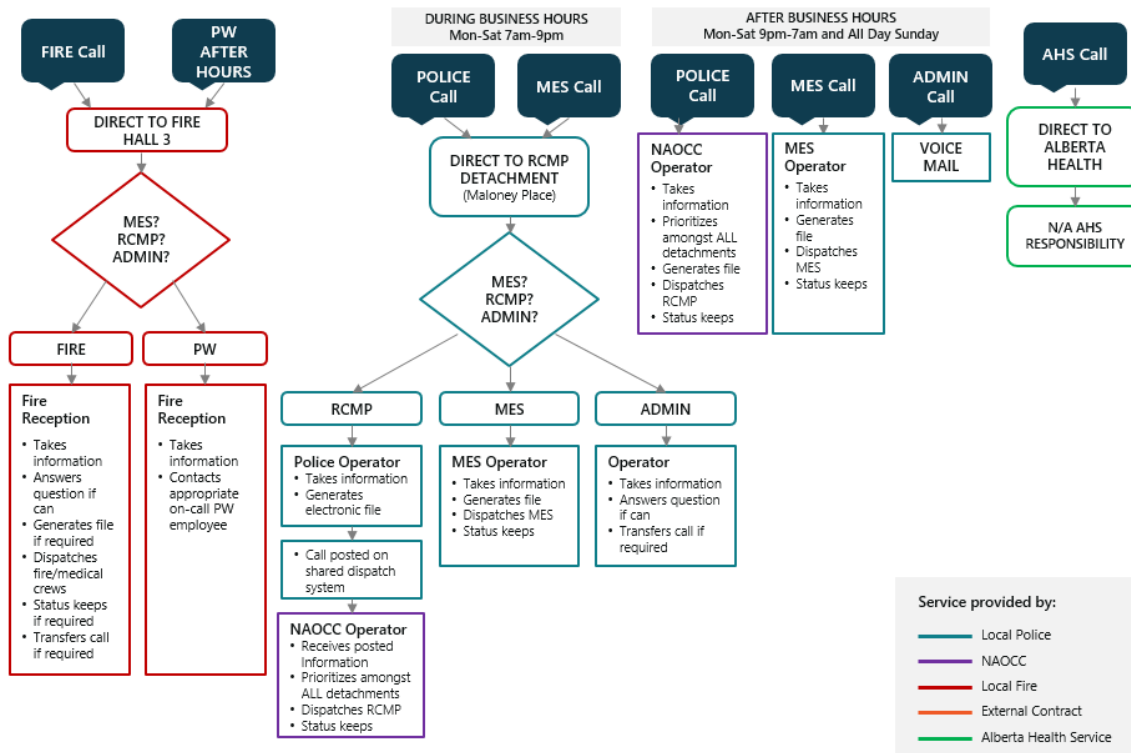


Figure 26: Non-Emergency Communication Services - All Services Contracted Externally



Customer Impact

- It has been expressed during stakeholder interviews that the residents of St. Albert prefer that dispatching services be provided locally, due to the degree of understanding of the area that local dispatchers have.
- However, with NG911's advanced location services, dispatchers would be able to pinpoint locations of emergency callers more accurately than ever before. Therefore, having the dispatching services contracted outside of St. Albert may not have a significant effect on the service level related to emergency calls.
- Municipal enforcement dispatch and non-emergency calls would remain stationed within St. Albert at the RCMP detachment, providing residents with local dispatchers in those areas.

Technology

- St. Albert would circumvent the required investment costs into upgrades due to NG911 by contracting PSAP and dispatch services.

Financial Impact

- An analysis has been conducted for this scenario, with the net cost from 2022-2031 outlined below. The financial analysis below was conducted under the following assumptions:
 - Contract costs for 911 PSAP and fire dispatching is estimated at \$140,755 annually, with an additional \$50,000 in annual administrative costs, as per cost estimates provided by external stakeholders.
 - Contract costs for police dispatching is estimated at \$281,019 annually, as per cost estimates provided by external stakeholders.
 - Salaries have been adjusted to increase based on average historical salary increases, as per Table 36 in Appendix 1. Police salaries have been estimated to increase by 1.82% annually, and fire salaries have been estimated to increase by 1.91% annually.
 - Local municipal enforcement dispatch costs are estimated at \$444,000 annually, based on current police dispatch salary costs and benefits. Cost outlines can be found in Appendix 1, Table 35.
 - Public works after hours costs are estimated at \$50,000, and Police CPIC and miscellaneous support costs are estimated at \$80,000 annually, as per "Dispatch Options – Appendix 1" provided by St. Albert.

Table 19: Revenues and Expenses – Contract All Services Externally

	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Revenues										
Emergency Response Fees	98,000	-	-	-	-	-	-	-	-	-
Grants	305,000	-	-	-	-	-	-	-	-	-
Total Revenue	403,000	-	-	-	-	-	-	-	-	-
Expenses										
Police Salaries	1,128,400	524,000	533,537	543,247	553,134	563,201	573,452	583,888	594,515	605,335
Police Expenses	243,300									
Police Contract	-	281,019	281,019	281,019	281,019	281,019	281,019	281,019	281,019	281,019
Total Police	1,371,700	805,019	814,556	824,266	834,153	844,220	854,471	864,907	875,534	886,354
Fire Salaries	462,800	100,000	101,910	103,856	105,840	107,862	109,922	112,021	114,161	116,341
Fire Expenses	191,906	-	-	-	-	-	-	-	-	-
Fire and PSAP Contract	-	140,755	140,755	140,755	140,755	140,755	140,755	140,755	140,755	140,755
Total Fire	462,800	240,755	242,665	244,611	246,595	248,617	250,677	252,776	254,916	257,096
NG911 Investment	-	-	-	-	-	-	-	-	-	-
Total Expenses	2,026,406	1,045,774	1,057,221	1,068,878	1,080,748	1,092,837	1,105,147	1,117,684	1,130,450	1,143,451
Net	-1,623,406	-1,045,774	-1,057,221	-1,068,878	-1,080,748	-1,092,837	-1,105,147	-1,117,684	-1,130,450	-1,143,451

4.4 Sell Emergency Communications Services to Others

The final option involves continuing to operate the two dispatch centres, and most likely amalgamating them, but investing in additional capacity to be able to offer PSAP and dispatching services to other municipalities. This would allow the city to offset expenses and infrastructure costs with revenues from providing services to other municipalities. This option allows for expenses to be offset, creates jobs within the community, and allows for new partnerships with neighboring communities and municipalities.

St. Albert could provide contracting services for 911 PSAP, fire dispatching, and/or police dispatching. Additionally, St. Albert could provide municipal enforcement and peace officer dispatching services to municipalities.

Neither Fire Hall #3 nor the police communications centre have sufficient space for additional seats to be added, therefore a new location or expansion would be required. It is likely that an amalgamation of the centres would be best suited to provide non-emergency services for both police and fire, as well as municipal enforcement or peace officer dispatch.

Primary research indicates the market is saturated with communication centres that offer fire and PSAP services, and the market for new providers is likely limited. Most centres offer services on a cost recovery basis. If St. Albert were to enter the business of offering fire PSAP and dispatch services, they would have to obtain customers from neighboring communities.

The RCMP currently provides police dispatching for most Albertan municipalities, except for municipalities that have municipal police services such as Calgary, Edmonton, Lethbridge, and others. Therefore, the market for PSAP and police dispatching services is not broad. Furthermore, St. Albert would be competing with their own policing provider, the RCMP, to offer police dispatching services.

Additionally, those in the industry expect that volume of municipalities that would be willing to provide these services internally would continue to shrink with the integration of NG911 technology. The technologies are expected to provide improved information but can be prohibitively expensive and would require a critical mass of activity to be cost effective. This likely limits the ability of smaller centres to offer these services in the future. Many municipalities in Alberta have already made the move to contract their emergency communications services to other contract service providers.

Through stakeholder interviews, municipalities that contract out their services expressed mixed reviews in doing so. Cost savings were noted to be beneficial, however the level of service provided by contracted services is perceived to be lower than the level of service provided in a local model.

If St. Albert invests in this model and ultimately does not attract enough customers to breakeven the risk of financial loss is more significant than any other proposed model.

4.5 Service Delivery Model Options Summary

The table below provides a summary of the service model options, as well as the criteria used to analyze each alternative model.

Option	People	Processes	Customer	Technology NG911 Needs and Cost (\$)	Normalized Annual Operating Cost (2025)
1: Status Quo	<ul style="list-style-type: none"> No layoffs or additions 	<ul style="list-style-type: none"> No change to current model Relatively consolidated operating process Redundancy of operating two centres Lack of standardized RCMP dispatch – St. Albert is doing their own thing 	<ul style="list-style-type: none"> Service provision remains “local” 	<ul style="list-style-type: none"> 1,096,519 up-front 120,642 annual 	1,271,368
2: Amalgamation, Police is PSAP	<ul style="list-style-type: none"> No layoffs Transfer of 4 FTEs to police 	<ul style="list-style-type: none"> Small degree of change with fire dispatch moved to police dispatch Consolidated operating process Lack of standardized RCMP dispatch – St. Albert is doing their own thing 	<ul style="list-style-type: none"> Service remains local Small interruption risk during amalgamation 	<ul style="list-style-type: none"> 128,778 up-front 34,189 annual 	1,246,887
3A: Contract, PSAP & Fire Contracted Out	<ul style="list-style-type: none"> 4 layoffs of fire dispatchers Addition of fire administrative support Potential for additional layoffs at police dispatch due to contracting of PSAP 	<ul style="list-style-type: none"> Small degree of change by contracting PSAP and fire dispatch Lack of standardized RCMP dispatch – St. Albert is doing their own thing 	<ul style="list-style-type: none"> Small “localness loss” PSAP is the least effected service by localness Fire is the smallest call type by volume 	<ul style="list-style-type: none"> 120,519 up-front 25,642 annual 	1,403,480

Option	People	Processes	Customer	Technology NG911 Needs and Cost (\$)	Normalized Annual Operating Cost (2025)
3B: Contract, Fire & Secondary PSAP Contracted Out	<ul style="list-style-type: none"> 4 layoffs of fire dispatchers Addition of fire administrative support 	<ul style="list-style-type: none"> Lack of standardized RCMP dispatch – St. Albert is doing their own thing 	<ul style="list-style-type: none"> Small “localness loss” Fire is the smallest call type by volume 	<ul style="list-style-type: none"> 120,519 up-front 25,642 annual 	1,023,314
3C: Contract, Police Contracted Out	<ul style="list-style-type: none"> 8 layoffs of police dispatchers, retention of 4 employees for non-emergency call taking 	<ul style="list-style-type: none"> Larger degree of change with police dispatch contracted out. All PSAP calls and fire dispatch at fire Operating process complicated with PSAP moved to fire dispatch Standardization of RCMP dispatch 	<ul style="list-style-type: none"> Loss of local knowledge 	<ul style="list-style-type: none"> 1,069,300 up-front 160,000 annual 	1,234,871
3D: Contract, Fire and Police Dispatch, Secondary PSAP Contracted Out	<ul style="list-style-type: none"> 4 layoffs of police dispatchers, retention of 8 employees for primary PSAP call taking 4 layoffs of fire dispatchers Addition of public works after hours role at Fire Hall 	<ul style="list-style-type: none"> Larger degree of change with police dispatch contracted out. Operating process complicated with PSAP and dispatch no longer in the same building Standardization of RCMP dispatch 	<ul style="list-style-type: none"> Loss of local knowledge for police and fire dispatch calls 	<ul style="list-style-type: none"> 112,260 up-front 17,095 annual 	887,723
3E: Contract, All Contracted Out	<ul style="list-style-type: none"> 4 layoffs of fire dispatchers Addition of fire administrative support 8 layoffs of police dispatchers, retention of 4 employees for non-emergency call taking 	<ul style="list-style-type: none"> Large degree of change with police dispatch contracted out Standardization of RCMP dispatch 	<ul style="list-style-type: none"> Largest loss of localness 	<ul style="list-style-type: none"> N/A 	1,068,878

Option	People	Processes	Customer	Technology NG911 Needs and Cost (\$)	Normalized Annual Operating Cost (2025)
4: Sell to Others	<ul style="list-style-type: none"> No layoffs Potential additions based on new customers 	<ul style="list-style-type: none"> Addition of contracted services to other municipalities Operating process affected by addition of contracted services Lack of standardized police dispatch – St. Albert is doing their own thing 	<ul style="list-style-type: none"> Retains local service provision Small risk of distraction from local service 	<ul style="list-style-type: none"> 1,096,519 up-front 120,642 annual 	N/A

5 Findings and Recommendation

Based on the proposed alternative service model options and the evaluation considerations for each, the following findings summary has been prepared for St. Albert's emergency communications.

The following criteria, as provided in St. Albert's RFP for this study, were used to compare each of the service models against each other. The graphics on the following pages place the potential service delivery options along a spectrum based upon their relative characteristics in each of the following metrics. Efforts were made to make empirical estimates of each of these measures. Descriptions of consideration elements and how each model was scored along the spectrum are provided below.

People: Considerations regarding impacts to employees in the dispatch centres on a spectrum of "Disruptive to "Non-Disruptive. Considerations include the number of layoffs, risk of labour disputes, job shifts, and the potential volume of training and onboarding required. Layoffs were rated the most disruptive followed by risk of labour disputes, job shifts and then training. The volume of each was calculated, scored and added to the spectrum.

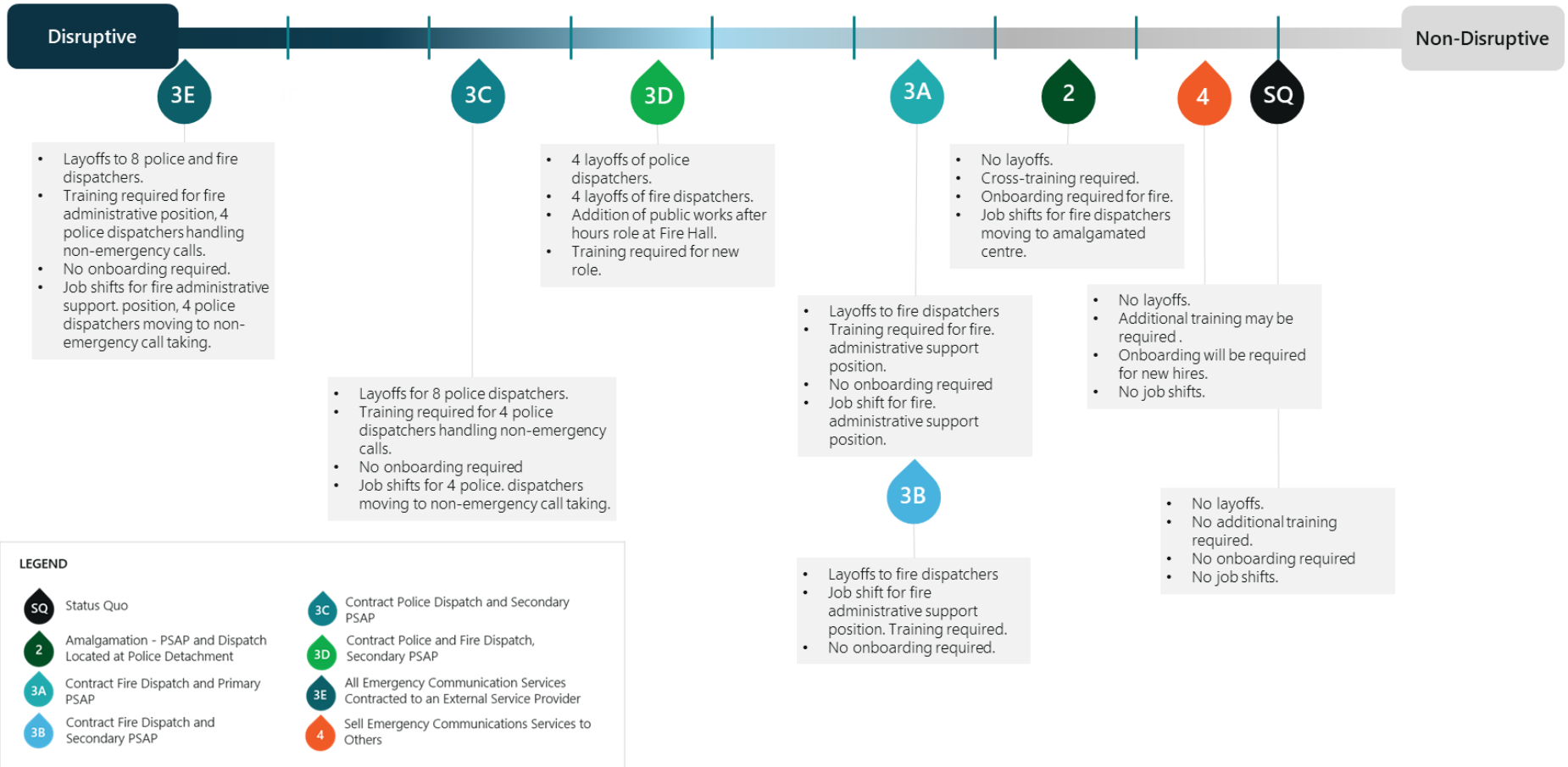
Processes: Considerations regarding impacts to operations and administrative functions on a spectrum of "Simple" to "Complex". Considerations include implementation and operations complexity such as the volume of organizations involved, simplicity of call path, and degree of standardization and were scored accordingly. The "Process" rankings fall in a tighter band on the spectrum. It was determined that although processes may range from simple to complex, the order of magnitude of the change would not represent multiples of each other. I.e., a process that rated a 3 would have to be 3 times as complex as a 9 and it was determined this was not likely to be the case.

Customer impact: Considerations regarding current customers (residents of St. Albert) on a spectrum of potential customer impacts of "Low Risk" to High Risk". Considerations include the degree of localness as well as the degree of control St. Albert would have regarding service provision standards. Like the process spectrum, these rating fall into a tighter cluster across the spectrum. Customer service may decline but is not likely to be a third of the status quo.

Technology: Considerations regarding required investments to technological infrastructure from "Low" to "High". Technology was rated along the spectrum proportionately based upon the expected 10-year cumulative technology cost. A model that rated a 4 would cost half as much as a model rated an 8 over the 10-year period.

Financial impact: Financial analysis based upon annual operating costs from "Lower" to "Higher" – in relative terms. Costs were rated along the spectrum proportionately based upon annual estimated cost using the same methodology as "Technology".

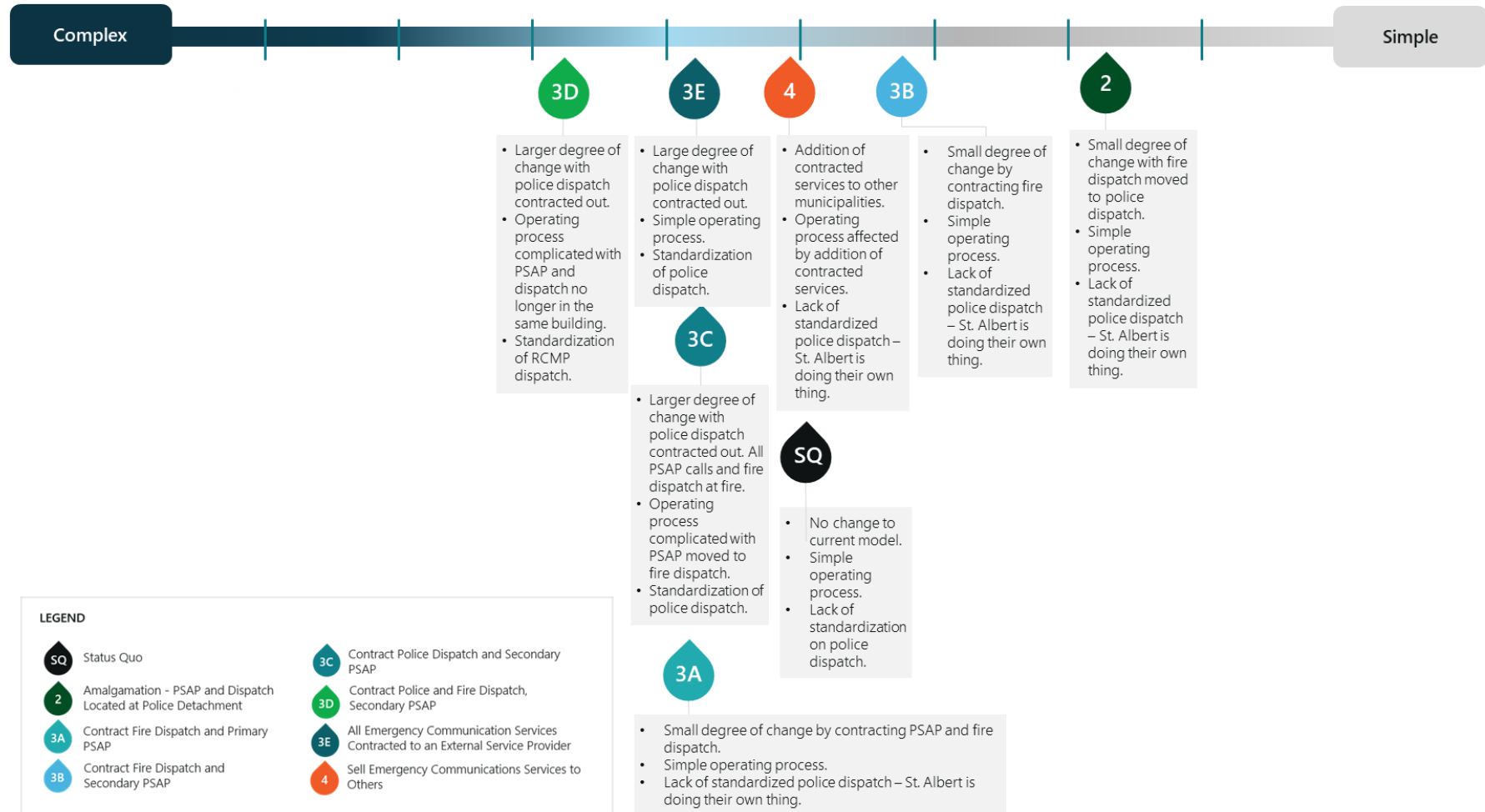
PEOPLE



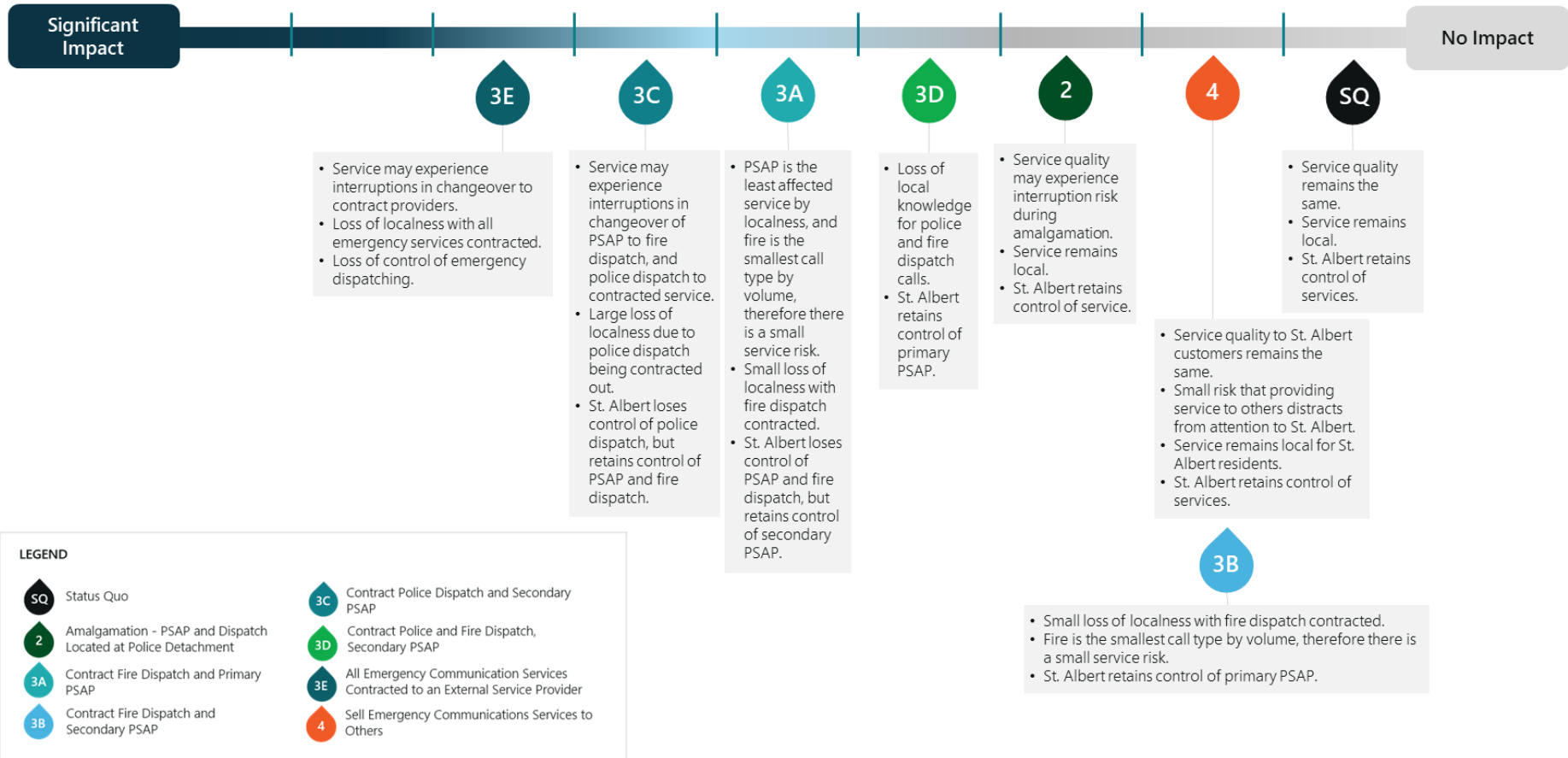
LEGEND

- SQ** Status Quo
- 2** Amalgamation - PSAP and Dispatch Located at Police Detachment
- 3A** Contract Fire Dispatch and Primary PSAP
- 3B** Contract Fire Dispatch and Secondary PSAP
- 3C** Contract Police Dispatch and Secondary PSAP
- 3D** Contract Police and Fire Dispatch, Secondary PSAP
- 3E** All Emergency Communication Services Contracted to an External Service Provider
- 4** Sell Emergency Communications Services to Others

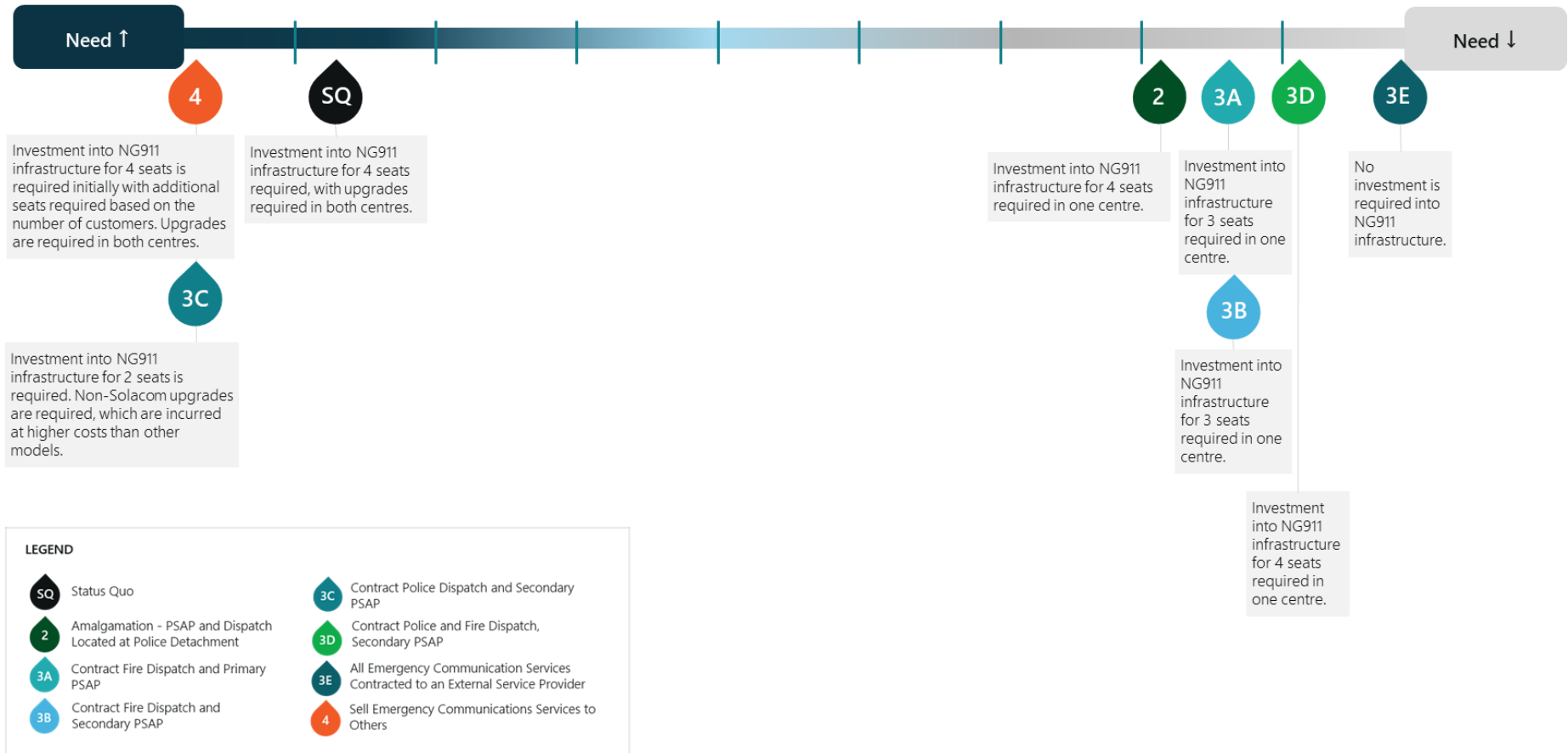
PROCESS



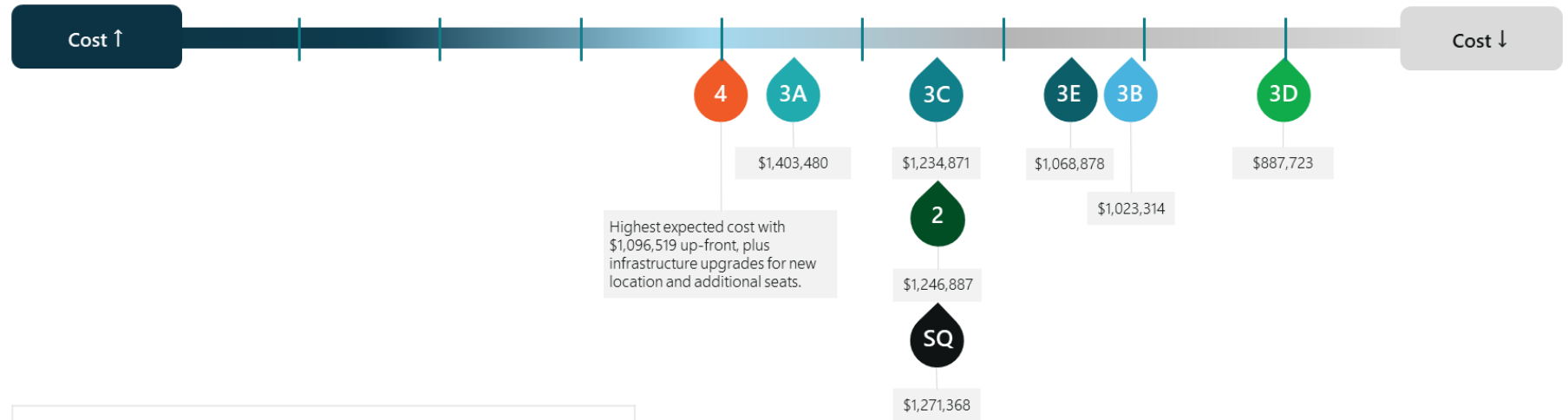
CUSTOMER IMPACT



TECHNOLOGY



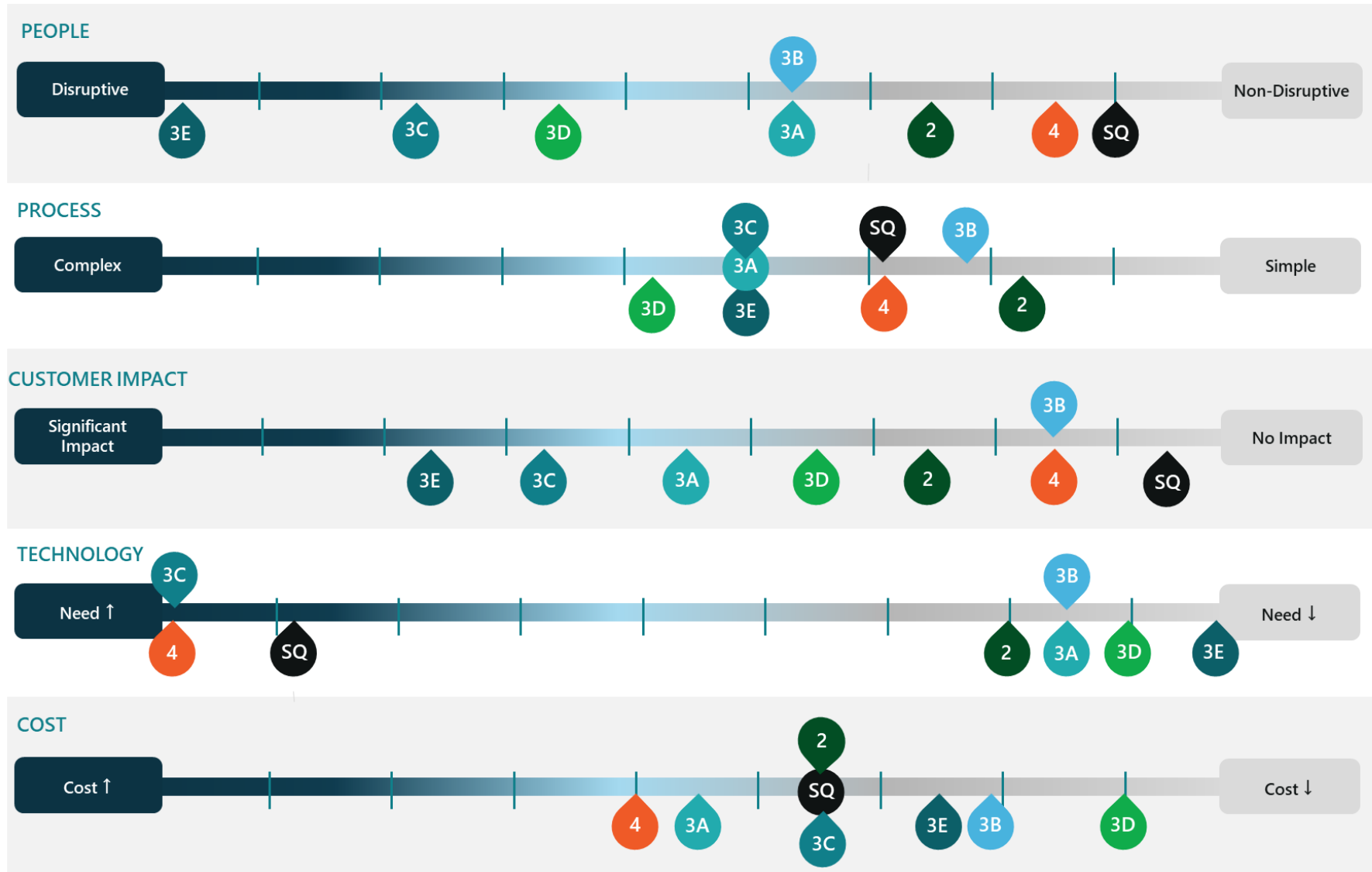
COST



LEGEND

Status Quo	Contract Police Dispatch and Secondary PSAP
Amalgamation - PSAP and Dispatch Located at Police Detachment	Contract Police and Fire Dispatch, Secondary PSAP
Contract Fire Dispatch and Primary PSAP	All Emergency Communication Services Contracted to an External Service Provider
Contract Fire Dispatch and Secondary PSAP	Sell Emergency Communications Services to Others

Summary



5.1 Recommendation

Each model as presented has at least some merit within one or more of the framework metrics. The criteria that St. Albert deems to be the most important as a community will have a significant impact on which model is the best fit. For example, if cost is the largest factor, the cheapest option may seem the most logical. However, if customer impact is the largest factor, the model that focuses most on service level will seem most logical.

Therefore, a weighted allocation was given to each evaluation consideration to capture the importance of each. Weightings are based on the perspectives garnered regarding each consideration throughout consultations. Cost and customer service were the most mentioned considerations while the remaining three were acknowledged, but to a lesser degree. The resulting weighting used for this assessment is included below.

Table 20: Evaluation Considerations Relative Weighting

Evaluation Consideration	Allocation
People	10%
Processes	10%
Customer Impact	35%
Technology	10%
Financial Impact	35%
Total	100%

The following sections described how the scores for each scenario were derived. The subsequent subsection demonstrates the scores utilizing the weighting from the table above.

People

The criteria used for the people section included:

- Training: How much training is required for employees?
- Job change: How many job changes are required?
- Layoff: How many layoffs are required?

Table 21: Criteria Weighting - "People"

Criteria	Training	Job Change	Layoff
Weight	1	2	4

Table 22: "People" Scoring

Model	Training	Job Change	Layoff	Total	Score
SQ	0	0	0	0	9.0
4	4	0	0	4	8.5
2	4	4	0	12	7.5
3A	1	1	4	19	6.7
3B	1	1	4	19	6.7
3D	1	1	8	35	4.8
3C	5	5	8	47	3.4
3E	5	5	12	63	1.5

Process

The criteria used for the process section included:

- Organizations: How many organizations are involved in 911 call taking and dispatching of St. Albert emergency services? The more organizations involved, the more complex the system.
- Transfers: How many transfers are required from the moment a call is received to the moment emergency services are dispatched? Increased transfers increase the complexity.
- Lack of standardization: Is there standardization to RCMP dispatching?
- Redundancy of centers: Is there more than 1 communication center in St. Albert?

Table 23: Criteria Weighting "Process"

Criteria	Organizations	Transfers	Lack of Std.	Redundancy
Weight	1	1	1	0.5

Table 24: "Process" Scoring

Model	Orgs	Transfers	Lack of Std.	Redundancy	Total	Score
2	1	0	1	0	2.0	8.75
3B	2	2	1	0	5.0	5.75
SQ	2	2	1	1	5.5	5.25
4	2	2	1	1	5.5	5.25
3A	2	3	1	0	6.0	4.75
3C	2	4	0	0	6.0	4.75
3E	3	3	0	0	6.0	4.75
3D	3	4	0	0	7.0	3.75

Customer Impact

The criteria used for the customer impact section included:

- Local: How many services are operated locally? Local service provision was associated with increased service levels.
- Control: How many services is St. Albert in control of? Increased control was associated with increased service provision.
- Quality: Will service quality be affected by interruptions to the service model during a transition or amalgamation period?

Table 25: Criteria Weighting - "Customer Impact"

Criteria	Local	Control	Quality
Weight	1	1	1

Table 26: "Customer Impact" Scoring

Model	Local	Control	Quality	Total	Score
SQ	3	2	2	7	8.5
4	3	2	1	6	7.5
3B	2	2	2	6	7.5
2	3	2	0.5	5.5	7.0
3D	2	1	1	4	5.5
3A	1	1	1	3	4.5
3C	0	1	1	2	3.5
3E	0	0	1	1	2.5

Technology

Technology scores were derived as a function of cost. The total cost for the 10-year projection period was utilized to measure each scenario against the other. Total costs were then scored proportionately.

Table 27: "Technology" Scoring

Model	Cost	Total	Score
3E	-	0.00	10.0
3D	197,735	1.00	9.1
3A	248,729	1.26	8.7
3B	248,729	1.26	8.7
2	299,723	1.52	8.2
SQ	1,699,729	8.60	2.3
4	1,699,729	8.60	1.3
3C	1,869,300	9.45	1.3

Cost

Costs were scored as a relative measure against each other scenario. The annual operating cost from the 2025 projected year was utilized to ensure each of the models had completed its respective transition or amalgamation.

Table 28: "Cost" Scoring

Model	Cost	Total	Score
3D	887,723	1.00	9.0
3B	1,023,314	1.15	7.8
3E	1,068,878	1.20	7.5
3C	1,234,871	1.39	6.5
2	1,246,887	1.40	6.4
SQ	1,271,368	1.43	6.3
3A	1,403,480	1.58	5.7
4	1,500,000	1.69	5.0

5.1.1 Weighted Average Scores

This relative weighting from Table 20 was used in conjunction with the scoring of each option across spectrums from the previous sections. Weighted averages of the scores for each consideration are added together for a final score. Results are included in the following table.

Table 29: Model Rating Results

Model	People (10%)	Processes (10%)	Customer Impact (35%)	Technology (10%)	Financial (35%)	Weighted Average Total
3B – Contract Fire Dispatch and 2° PSAP	6.74	5.25	7.50	8.70	7.80	7.42
2 – Amalgamation – 1° PSAP and Police and Fire Dispatch at Fire – Contract out 2° PSAP	7.57	8.25	7.00	8.20	6.40	7.09
SQ – Status Quo	9.00	4.75	8.50	2.30	6.30	6.79
3D – Contract Police and Fire Dispatch and 2° PSAP	4.83	3.25	5.50	9.10	9.00	6.79
4 – Sell Emergency Communication Services to Others	8.52	4.75	7.50	1.30	5.00	5.83
3A – Contract Fire Dispatch and Primary PSAP	6.74	4.25	4.50	8.70	5.70	5.54
3E – All Emergency	1.50	4.25	2.50	10.00	7.50	5.08

Model	People (10%)	Processes (10%)	Customer Impact (35%)	Technology (10%)	Financial (35%)	Weighted Average Total
Communication Services Contracted to an External Service Provider						
3C – Contract Police Dispatch and 2° PSAP	3.40	4.25	3.50	1.30	6.50	4.40

The top-rated model based upon the criteria, consideration allocation and ranking as described is model **3B – Contract Fire Dispatch and the Secondary PSAP**. This model ranks well in “Technology” because it negates the need to invest in expensive NG911 technology for fire dispatch and the secondary PSAP (police dispatch and primary PSAP can utilize the much cheaper RCMP Solacom technology). It also ranks relatively high on customer impact because most client interactions are maintained internally. Approximately only 350 fire calls will be outsourced from more than 15,000 911 calls. The secondary PSAP is an emergency back up and would only be required in an emergency in which the primary PSAP was inoperable. This model ranked second overall in the cost category. Retaining the primary PSAP maintains provincial funding revenue while contracting the secondary PSAP and fire dispatch, despite losing the lesser secondary PSAP funding, is a net cost benefit. Of note, significant costs are required to be maintained at the police call centre regardless of model. These staff currently perform duties such as answering non-emergency and administrative call lines, updating CPIC and dispatching ME officers. In this model, they would also perform some of the services that fire dispatch currently provides including weather monitoring. Therefore, maintaining this operation does not score much worse than outsourcing the police dispatch because many of those resources need to be maintained anyway. In fact, RCMP detachments that outsource police dispatch to an RCMP OCC in Alberta typically have significant municipal resources to perform these same activities (ME dispatch, administrative and non-emergency call lines, etc.) The process remains relatively streamlined in this model as well. Only a small proportion of calls are transferred and require a secondary contract organization, and much of the emergency communication activity, both emergency and non-emergency, remains consolidated. This model does require the layoff of fire dispatchers; however, and scored low in the “People” category as a result.

Model 3B is followed by a trio of models that scored well, but not as well as 3B.

Model 2 – amalgamating the fire and police dispatch while contracting out the secondary PSAP, avoids the high cost of NG911 technology required for fire and takes advantage of the opportunity to retain the primary PSAP using the RCMP’s Solacom technology. It also scores well on process because it consolidates and streamlines processes in one location. It does not score well in the cost category, however. Retaining the full suite of dispatch services makes this model less cost efficient. In addition, this model would incur yet unknown renovation costs to be able to accommodate all the police and fire dispatchers in the current location.

Status Quo follows. The current model scores well in “People” and “Customer Impact” – no changes would be made but requires significant technology investment and is not as cost efficient as other

models.

Model 3D – contracting police and fire dispatch as well as the secondary PSAP scores the highest in the cost category and the technology category. However, it scores poorly in the “People” category because the volume of lay-offs required and in “Process” because of adding a contract service provider and NAOCC to the mix as well as the potential cumbersomeness of non-emergency calls transferred back and forth between NAOCC and police dispatch.

There is a significant drop off in ranking after Model 3D to the other models.

Therefore, based upon the information and assumptions contained herein, the most effective and efficient model for St. Albert is to contract out the fire dispatch service and the secondary PSAP while retaining the primary PSAP and police dispatch. Police dispatch would continue to provide ME call dispatch as well as the other duties it currently provides. It would also inherit some of the extra duties currently performed by fire including emergency weather monitoring and dangerous goods permits.

Appendix 1

Table 30: NG911 Cost Budget Estimates for 5 Years, and 4 Seats

Detail	Quantity	Total Cost (\$)
Documentation of User Requirements, Acquisition Management, Call Handling	1	30,000
Documentation of CAD User Requirements, Record Management System, Acquisition	1	30,000
Documentation of Recording System Requirements, Acquisition Management	1	10,000
Call Handling Hosted ESWG, Per-Seat Pricing, Annual	5	125,000
Call Handling Hosted ESWG, Annual Support	5	1,300,000
CAD Installation and Training	1	350,000
Recording Equipment	1	60,000
Application Interfaces	1	15,000
Network Equipment	1	128,000
Network Installation	50	5,000
Physical Preparation	50	5,000
Annual 24/7 IT Support	5	150,000
Capital Costs to Add Alarming	1	5,000
Contingency (10%)		221,300
Total 5 Year Budget		2,434,300

Table 31: Costs Required in Contracting All Services Model

Role	Cost (Annual, \$)
Public Works After Hours	50,000
Police CPIC/Miscellaneous Support	80,000
Local Police Non-Emergency/Municipal Enforcement Services Dispatch	444,000

Table 32: Police Contract Costs (Estimate provided by an external provider)

Total Cost per Public Service Employee	\$93,673
Required Police Operational Telecommunications Operators for St. Albert	3
Total Annual Cost	\$281,019

Table 33: Fire Contract Costs (Estimate provided by an external provider)

Cost per Capita	\$2.13
St. Albert Population (2019)	66,082
Total Cost	\$140,755

Table 34: Fire Contract Costs If Primary PSAP Is Not Contracted Out

Cost per Capita	\$2.70
St. Albert Population (2019)	66,082
Total Cost	\$178,421

Assumptions:

- Average police salary rate: \$79,492.31. Based on 2022 total salary and current position pay structure.
- Average police benefit cost: \$18,515.38
- Average fire salary rate: \$84,937.94. Based on 2022 total salary costs.
- Average fire benefit cost: \$23,950.00

Table 35: Non-Emergency and Municipal Enforcement Dispatch Salary Costs

# of Positions	4
Assumed Annual Salary per employee	80,000
Assumed Annual Benefits per employee	18,500
Assumed Annual Casual Budget	50,000
Total Cost	444,000

Table 36: CUPE and IAFF Salary Increases, 2015-2021 (%)

	CUPE 5141	IAFF 2130
2015	2.50%	1.60%
2016	2.25%	1.68%
2017	2.00%	1.95%
2018	2.50%	2.09%
2019	2.25%	2.21%
2020	0.00%	N/A
2021	1.25%	N/A
Average	1.82%	1.91%

Table 37: Solacom Costs

Cost Category	Cost
NG-911 Call Handing Solution System Including Installation (One-Time)	\$92,161.59
Training (One-Time)	\$3,570.50
Maintenance and Support, Per Seat, Year 1 (Annual)	\$8,259.05

Note: Maintenance and Support costs increase each year as determined by the RCMP.

Table 38: Grant Revenues for PSAPs in St. Albert

Revenue Category	Pre-2022	Starting in 2022
Emergency Response Fees	\$98,000	\$98,000
Primary PSAP	\$305,000	\$591,453
Secondary PSAP	-	\$173,621

Appendix 2

Department/Position Title	
Supervisor, Emergency Communication	
Quality Assurance Coordinator, Emergency Services	
Manager, Policing Services	
Director, Human Resources & Safety	
St. Albert RCMP Detachment Commander	
Deputy CAO	
Senior Manager, IT	
Director, Financial Services, and IT	
Project Coordinator, Financial Services & Information Technology	
Deputy Chief, Operations	
Strathcona Emergency Communications Centre	Fire Chief Deputy Chief
Grand Prairie 911 Dispatch Centre	Director, Protective & Social Services
Spruce Grove Fire Services	Fire Chief Deputy Chief
Edmonton Police Service Emergency Communications Centre	Executive Director Business Operations/Program Manager Operations Manager
RCMP, "K" Division Northern Alberta OCC	Superintendent OCC Program Director St. Albert Municipal Detachment Commander
Lethbridge Public Safety Communication Centre	Fire Chief Deputy Commander
CUPE 5141	
Motorola	General Manager, Western Canada
IAFF Local 2130	President



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