



ROCKY VIEW COUNTY
Cultivating Communities

2022 Fire Services Master Plan



April 2022



Introduction

What is a Fire Services Master Plan

A Fire Services Master Plan can be referred to as a 'road map' to the future and used as a guiding document for current and future fire service leaders and municipal decision makers.

It is highly recommended that this plan be reviewed and evaluated, at minimum, on an annual basis or when there are unusual changes in risk, response demands, population and residential or industrial development activity.



Leading Practices & Standards

- NFPA 1710: Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments
- NFPA 1720: Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Volunteer Fire Departments
- Alberta OHS: Occupational Health and Safety Guide for Firefighting



General Incident Types by Response Zone (2016-2020)

Incident Type	Career Full-Time Zones				Paid-Per-Call Volunteer Zones			Contracted Zones		Total
	Balzac	Bearspaw	Springbank	Elbow Valley	Langdon	Irricana	Madden	Redwood	Crossfield	
Medical	737	599	367	189	493	115	119	357	90	3,321
Motor Vehicle	662	283	399	74	225	60	42	25	147	2,030
Alarms	369	331	366	194	376	35	35	59	37	1,887
Fire	417	320	258	106	275	84	56	52	97	1,846
Public Service	89	81	76	54	37	14	3	56	13	465
Dangerous Goods/ Hazmat	72	44	52	20	46	1	6	10	9	277
Rescue	16	13	28	4	15	4	1	6	1	98
Misc.	10	5	7	2	9	1	1	5	5	77
Total	2,372	1,676	1,553	643	1,476	314	263	570	399	10,001

80th Percentile Response Time by Response Zone - All Emergency Incidents

Response Zone	2016	2017	2018	2019	2020	5 Year
Balzac	1121	1112	1060	1049	1027	1074 (17.9 mins)
Bearspaw	1213	1084	1194	1079	1026	1131 (18.8 mins.)
Springbank	985	917	958	1039	946	975 (16.2 mins)
Elbow Valley	877	746	749	684	770	764 (12.7 mins.)
Langdon	1234	1324	1314	1362	1455	1345 (22.4 mins.)
Irricana	1569	1573	1579	1683	1463	1571 (26.1 mins.)
Madden	1941	1762	2034	1713	1881	1901 (31.7 mins.)
Redwood Meadows	1220	1301	1174	1147	1134	1220 20.3 mins.)
Crossfield	1085	1155	1469	1133	1042	1155 19.2 mins.)

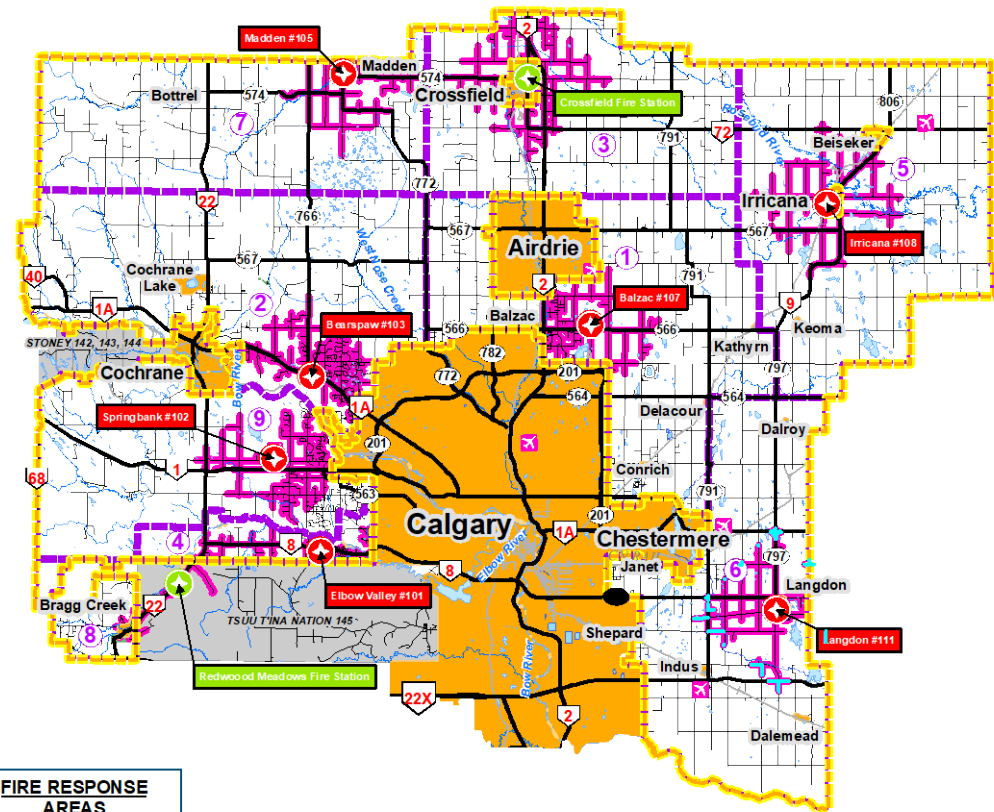
Within 8 kms, 80th percentile response time benchmarks are set at 10 minutes for the Balzac, Elbow Valley, Springbank, Bearspaw and Langdon fire stations to arrive with four firefighters

The Irricana and Madden fire stations have an 80th percentile response time goal of 18 minutes to arrive with four firefighters.



Response Time Maps

Eight Kilometre Service Level Coverage - All Stations



FIRE RESPONSE AREAS

- ① BALZAC
- ② BEARSPAW
- ③ CROSSFIELD
- ④ ELBOW VALLEY
- ⑤ IRRICANA
- ⑥ LANGDON
- ⑦ MADDEN
- ⑧ REDWOOD
- ⑨ SPRINGBANK

8 KM TRAVEL FROM STATION

Times to Travel 8 KM from the Station		
Station	Min Seconds	Max Seconds
Balzac	304	442
Bearspaw	288	439
Springbank	319	391
Elbow Valley	321	369
Langdon	335	436
Irricana	307	367
Madden	288	359
Crossfield	290	386
Redwood Meadows	317	461

- FIRE STATION LOCATION
- CONTRACT FIRE STATION LOCATION
- ACCESS ROAD
- HIGHWAY
- RAILWAY
- POPULATED PLACE
- ROCKY VIEW COUNTY MUNICIPAL BOUNDARY
- AIRPORT
- WATERWAY / WATERBODY
- PROTECTED AREA / PARK
- FIRE RESPONSE AREA

Scale: 1:500,000

Date: October 2021

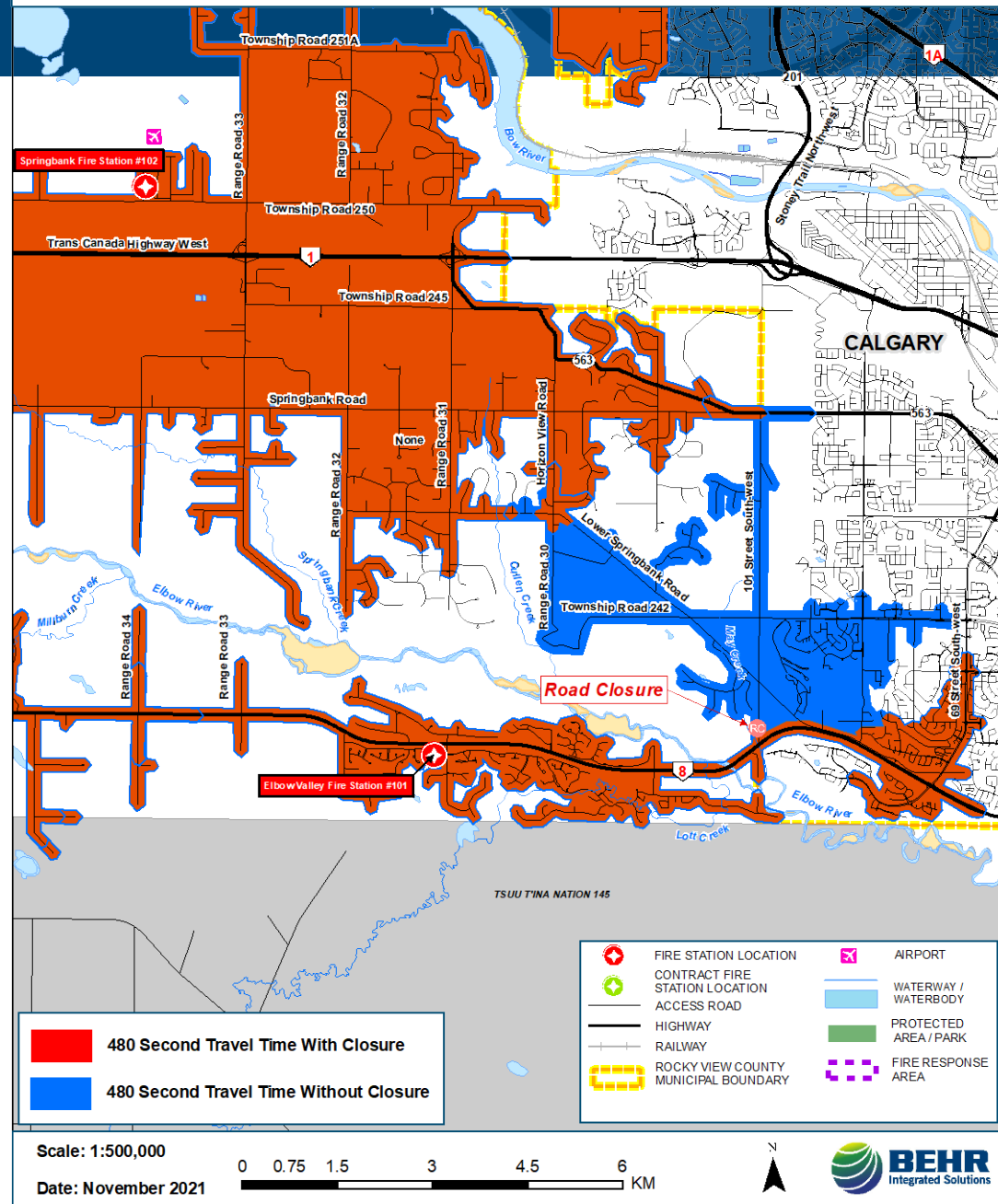
0 5 10 20 30 40 KM



Response Time Maps

101 Street SW Closure Comparison

- Area in **red** illustrates the 480 second travel time with closure
- Area in **blue** illustrates 480 second travel time without closure (current system)
 - This area would see a decrease in service level with an increase of approx. 240 seconds should the closure be permanent resulting in 720-second travel time



Municipal Comparatives Analysis: Participating Municipalities

County	Population	Jurisdiction Land Area (km ²)	Population per km ²
Rocky View County	40,948	3,885	10.1
County of Grande Prairie	22,303	5,700	3.9
Clearwater County	18,888	18,921	0.99
Foothills County	21,248	3,643	5.8
Yellowhead County	10,990	23,000	0.5



Municipal Comparatives Analysis: Budgets

County	County Budget	Department Operating Budget	Cost per capita	Percentage of Municipal Budget
Rocky View County	\$216 M	\$15.2 M	\$386.99	7%
County of Grande Prairie	\$82 M	\$8.26	\$370.30	10%
Clearwater County	RMH: \$26.5M Village: \$1.1M County: \$54.5M	\$2.7M (County \$2.32M)	County: \$154.35 Town: \$91.62 Village: 63.56	6%
Foothills County	\$41.58 M	\$5.4 M	\$256.14	13%
Yellowhead County	\$133.5 M	\$6.73 M	\$613.00	5%



Summary of Recommendations

Recommendations are numbered based on they appear in the report. A timeframe within 0 – 120 months (1 – 10 years) is assigned to each recommendation.

Critical	Short Term	Intermediate	Long Term
0 -12 months	12 - 48 months	48 - 60 months	60 - 120 months



Summary of Recommendations

Critical (0 – 12 months)

Recommendation #7: Complete a mission statement along with vision and mandate exercise with all the fire stations that are under direct management of RVCFS

(Suggested completion: 0 - 12 months)

It is recommended that the fire chief generates an opportunity for all county fire stations to have input into and participate in creating a mission, vision and core values mandate. The intent of this exercise is to advance the RVCFS, so all members recognize themselves as being part of one single fire service.



Summary of Recommendations

Critical (0 – 12 months)

Recommendation #9: Enhance the current level of communication with RVCFS administration and all senior officers with the focus to address the concerns raised about the transition from paid-per-call volunteer to career firefighting staff

(Suggested completion: 3 - 6 months)

It is recommended that the RVCFS administration team, paid-per-call volunteer chiefs and senior officers engage with the leaders of each fire station, with the purpose of addressing this transitional resistance by confirming the value of paid-per-call volunteers, clarifying roles and responsibilities. The overarching goal is to re-establish a cohesive, high-performing team that has a clear vision and understanding of RVCFS' direction and how the community and public will be well served.



Summary of Recommendations

Critical (0 – 12 months)

Recommendation #10: Enhance internal communications with the fire chief, deputy chief and district chiefs

(Suggested completion: 3 - 6 months)

The intent of this recommendation is to continually reaffirm and measure the progression of agreed upon goals, priorities and defined timelines. For example, this could be achieved by planning sessions, or the development of work plans. Furthermore, the development of a work plan with specific, measurable, realistic attainable and timely (SMART) goals will ensure that the RVCFS administration team efforts are focused on a unified direction.



Summary of Recommendations

Critical (0 – 12 months)

Recommendation #11: RVCFS administration and Rocky View County Fire Fighters Union IAFF Local 4794 should develop a working relationship agreement document between the two parties

(Suggested completion: 3 - 6 months)

A recommended industry best practice is to develop a working relationship agreement. The purpose of this agreement is to clarify lines of communication, roles and responsibilities in order to collaboratively build a high performing organization.



Summary of Recommendations

Critical (0 – 12 months)

Recommendation #12: Develop an updated administration response matrix and SOG

(Suggested completion: 6 - 9 months)

It is recommended that the fire chief, in consultation with the deputy chief and district chiefs formalize an 'alarm assignment response matrix' and SOG that is embedded with the dispatch protocols. The first responding officer declares the alarm response required as part of the size-up. For example:

- First Alarm: Routine calls that do not require additional support from an assisting station or the recall of on-call staff. Primary response has the capacity to mitigate.
- Second Alarm: Working fires or emergencies that require a response from the assisting station and the recall of on-duty staff (district chief).
- Third Alarm: Major events that require additional response from assisting stations, recall of district chief and additional chief officers.
- General Alarm: Recall of all on-call and off-duty firefighters.



Summary of Recommendations

Critical (0 – 12 months)

Recommendation #20: Review the RVCFS mobile equipment list and amend the life cycle program accordingly

(Suggested completion: 0 - 12 months)

Based on usage, kilometers, anticipated replacement costs, and other relevant parameters, it is recommended that the RVCFS work together with the fleet and finance department to review and update the RVCFS mobile equipment list for replacements and amend reserve funding model as necessary.



Summary of Recommendations

Short-Term (12 - 48 months)

Recommendation #3: Complete a review of the water supply for new and current developments within the county

(Suggested completion: 12 - 24 months)

It is recommended that the fire chief, in conjunction with the RVC Planning Department, complete a review on the water supply for new and current building stock. Further it is recommended that the county undertake a complete review of all water supplies suitable for firefighting. The outcome of this would be a formal process for monitoring water supplies with ongoing inspections particularly for future developments.



Summary of Recommendations

Short-Term (12 - 48 months)

Recommendation #4: Continue to maintain and improve partnerships with rail and other industry operators, to enhance knowledge of dangerous goods inventory being transported through the county

(Suggested completion: 36-48 months)

It is recommended that the RVCFS continue review the Protective Directive (PD) 36 information from CN and CP Rail, and other industry operators transporting dangerous goods through the county, on the types and quantities of dangerous goods they transport. In addition to this, it is recommended that the RVCFS continue to engage in training exercises and learning opportunities with these entities on a consistent basis.



Summary of Recommendations

Short-Term (12 - 48 months)

Recommendation #5: Complete a community wildfire protection plan and implement the FireSmart program throughout all wildland interface areas within the county

(Suggested completion: 24 - 36 months)

It is recommended that the fire chief research the possibility for a Forest Resource Improvement Association of Alberta (FRIAA) grant to complete a community wildfire protection plan and further the FireSmart program implementation in wildland urban interface areas beyond the Bragg Creek area. Further, in cooperation with provincial and forestry industry representatives, develop a joint strategy to assess risk from wildfire and industry lumber storage.



Summary of Recommendations

Short-Term (12 - 48 months)

Recommendation #6: Develop a fire prevention branch with the capability to support ongoing cyclical inspections of high-risk properties and life safety systems

(Suggested completion: 12 - 24 months)

It is recommended that RVCFS implements dedicated fire prevention capability to support increased fire prevention inspections and public education program delivery that are aligned with the county's current program. It is Behr's understanding that a full-time fire inspector position was implemented during this review. The duties of this position should include but not be limited to developing a schedule of inspections for the high-risk buildings and private water supplies within the County, conducting highly technical industrial and commercial inspections, and providing inspection training for the fire crews.



Summary of Recommendations

Short-Term (12 - 48 months)

Recommendation #8: Conduct a staffing ratio analysis in the Elbow Valley, Springbank, Bearspaw, and Balzac fire stations

(Suggested completion 24 - 48 months)

It is recommended that the fire chief should undertake a critical review of the benefits and challenges of relying on part-time firefighters to staff career stations. The review should include a study of full-time firefighters to part-time firefighters considering the financial and operational needs to determine the optimal ratio.



Summary of Recommendations

Short-Term (12 - 48 months)

Recommendation #13: Implement an annual paid-per-call volunteer recruitment program to include all paid-per-call volunteer fire stations with common messaging and processes

(Suggested completion: 12 - 24 months)

It is recommended that the RVCFS develop a common and consistent recruitment and retention process to be utilized by all paid-per-call volunteer fire stations. This would include training programs that can be coordinated amongst the fire stations promoting cost savings and efficiencies of training resources.



Summary of Recommendations

Short-Term (12 - 48 months)

Recommendation #14: Create a training division with a dedicated training coordinator position

(Suggested completion: 12 - 24 months)

To maintain operation readiness, it is recommended that the RVCFS develop a division with the specific mandate to develop, coordinate, and track the delivery of all necessary training for new recruits and existing frontline personnel. Initially, this division could maintain a dedicated training coordinator with the responsibility of coordinating and tracking the training needs of the RVCFS.



Summary of Recommendations

Short-Term (12 - 48 months)

Recommendation #15: Continue building and developing an in-house live fire training facility

(Suggested completion: 24-36 months)

It is recommended that the RVCFS continue the ongoing development of the RVCFS training facility to include an in-house live fire training facility. It is recognized that funds have been allocated for future additions to the current live fire training program and training facility in compliance with NFPA 1402 Standard on Facilities for Fire Training and Associated Props.



Summary of Recommendations

Short-Term (12 - 48 months)

Recommendation #16: Expedite the replacement of 107 Engine and 207 Engine

(Suggested completion: 12 - 24 months)

It is recommended that the replacement of 107 Engine and 207 Engine be done as soon as possible.



Summary of Recommendations

Short-Term (12 - 48 months)

Recommendation #18: Modify the Rocky View County Quality Management Plan to include a cyclical inspection program

(Suggested completion: 12 - 24 months)

It is recommended that Rocky View County modifies its QMP to include a cyclical inspection program that focusses on the higher fire and life safety risk properties.



Summary of Recommendations

Short-Term (12 - 48 months)

Recommendation #19: Formalize pre-emergency plan inventory

(Suggested completion: 36 - 48 months)

It is recommended that RVCFS establish a formal pre- planning program that documents significant operational aspects in a hard copy or electronic database where it can be retrieved when responding to incidents.



Summary of Recommendations

Short-Term (12 - 48 months)

Recommendation #21: Enhance the data management, and reporting processes to measure, monitor and report service level performance

(Suggested completion: 12 - 24 months)

The current records management system (RMS), Fire Pro, may have the functionality to improve the measurement and reporting of service level performance. If Fire Pro is not able to provide this functionality, alternative products should be considered. Additionally, RVCFS should work with Calgary 911 to develop the appropriate data export format to input into the RMS.



Summary of Recommendations

Short-Term (12 - 48 months)

Recommendation #22: Update the Rocky View County Council Policy C-704, Fire Protection Service Levels

(Suggested completion: 24-48 months)

This policy is an excellent foundation to advance the further refinement of fire service levels. This policy could be improved by including a broader list of services provided by the RVCFS and refining service level expectations for all RVCFS and contracted stations. As discussed, this policy should be amended to include a more comprehensive list of services provided and defined or measurable service levels for contracted service providers.



Summary of Recommendations

Short-Term (12 - 48 months)

Recommendation #23: Conduct a review of the alarm handling process and establish performance goals for Calgary 911

(Suggested completion: 12 – 24 months)

Working with Calgary 911 staff, RVCFS should review the processes for alarm handling and when specific timestamps are captured.



Summary of Recommendations

Short-Term (12 - 48 months)

Recommendation #25: Increase minimum career station staffing to six firefighters if reliable interior fire suppression is desired

(Suggested completion: 36 – 48 months)

As part of reviewing and completing a revised standard of cover, fire suppression service levels should also be reviewed. As growth and development in the county proceeds, the community risk profile will change, and fire suppression service expectations should be reviewed to ensure they align with community and RVC Council expectations.



Summary of Recommendations

Intermediate (48 – 60 months)

Recommendation #1: Develop a comprehensive structural risk inventory program and business licence application program

(Suggested completion: 48 - 60 months)

It is recommended that the fire chief work with the Rocky View County Economic Development and Planning and Development departments to provide a process to inventory all existing and new properties, and that the building inventory be classified, documented and maintained using the Alberta Building Code Major Occupancy Classification system.



Summary of Recommendations

Intermediate (48 – 60 months)

Recommendation #2: Undertake a comprehensive risk analysis of the individual station demand zones and include it as part of a standard of cover policy

(Suggested completion: 48 - 60 months)

After completing this review, the results should be compiled into a single document and presented to council. Identified service concerns or policy gaps should be discussed with council and policy should clearly reflect the services and service levels provided by the RVCFS. Further, RVCFS SOGs and SOPs should be updated to reflect changes in services or service levels. The process of completing the standard of cover (SOC) involves considerable effort. To be successful, this process requires the support of all levels of senior county leadership and county council, as well as adequate resourcing within the RVCFS.



Summary of Recommendations

Intermediate (48 – 60 months)

Recommendation #17: Purchase an aerial apparatus

(Suggested completion: 48 - 60 months)

It is recommended that the RVCFS should work towards securing funding for the design, procurement and purchase of an aerial apparatus based on area risk, service level mandate and availability of mutual aid apparatus. At minimum, the aerial apparatus should be 100 ft.



Summary of Recommendations

Long-Term (60 – 120 months)

Recommendation #24: Evaluate growth and development, demand for services and response performance in Conrich area based on council approved standard of cover and service policy.

(Suggested completion: 60 - 120 months)

Proceed with Conrich station design, build and staffing as service demands dictate and operating capital funding is allocated. This station development should proceed when the risks or service pressures can no longer be managed with current RVCFS resources.



Questions and Comments

THANK YOU

For more information contact:

Behr Integrated Solutions

Phone: 403-444-6940

www.behrintegrated.com

