



City of Richmond

Report to Committee

To: Community Safety Committee

Date: January 12, 2023

From: Jim Wishlove
Fire Chief

File: 99-Fire Rescue/2023-
Vol 01




Re: Richmond Fire-Rescue Monthly Activity Report – December 2022 and Year in Review

Staff Recommendation

That the staff report titled “Richmond Fire-Rescue Monthly Activity Report – December 2022 and Year in Review”, dated January 12, 2023, from the Fire Chief, be received for information.

Jim Wishlove
Fire Chief
(604-303-2715)

Att. 1

REPORT CONCURRENCE	
CONCURRENCE OF GENERAL MANAGER 	
SENIOR STAFF REPORT REVIEW	INITIALS: 
APPROVED BY CAO 	

Staff Report

Origin

This report supports Council's Strategic Plan 2018-2022 Strategy #1 A Safe and Resilient City:

Enhance and protect the safety and well-being of Richmond.

Analysis

Emergency Programs

Staff completed advanced portions of web-based Emergency Operations Centre (EOC) training. This was the final portion of training that has been funded by the 2020 Union of British Columbia Municipalities Community Emergency Preparedness Fund Grant. The grant amount totalled \$24,855.53 and these funds were used for mobile EOC administration technology, equipment and advanced virtual EOC application training. The completion of this training sets the conditions for staff to operationalize the virtual, remote capacity of the City's EOC, enhancing response times, situational awareness, support and communication during activations.

Staff assisted in communication and coordination for the extreme weather events in December 2022. This included updating operations teams with information such as: an Arctic Outflow Warning, Winter Storm Warning, Rainfall Warning, Extreme Water Level Bulletin, and Flood Watch. Staff also supported the response to the December flooding on Mitchell Island by administering a Provincial task number from Emergency Management BC and liaising with the South West Provincial Regional Emergency Operations Centre. This will allow for recovery of appropriate response and deployment costs needed to mitigate the issue.

In response to a request for assistance from the North Shore Emergency Management director, staff were deployed to assist with providing Emergency Support Services (ESS) following the displacement of residents from a 60 unit residential building. Staff processed and digitized resident referrals for temporary accommodation using City of Richmond portable technology and equipment.

2022 Highlight

During 2022, staff responded to and supported several significant weather-related events including planning, managing and working with internal City departments to support the community and City staff during the summer heat dome and other heat-related, poor air quality and flooding events. By supporting these events and participating fully during deployments, staff brought their knowledge, skill sets, experience and support capacity to the various agencies who were managing events at the time.

Internal Staff Training and Public Outreach & Education

During December 2022, staff delivered in-house fire-training, educational activities and programs including: Frontline Leadership Training, Technical High Angle Rope Rescue Training, Violence Prevention & Awareness, Incident Command Systems Training, and fleet vehicle management systems. During December 2022, staff facilitated outreach events to provide

educational opportunities to approximately 1,000 residents, including education sessions provided to SUCCESS's New Immigrants Education Session, Burnett Secondary, Renaissance Kids and Pythagoras Academy. Staff participated with the community of Hamilton in the annual lighting of the Fire Hall event at Fire Hall No. 5.

Emergency Response

One of the City's emergency response goals is to arrive on-scene in time and with enough resources to contain a fire to the room of origin. The room of origin standard is especially important in terms of fire loss and damage, which can increase significantly once a fire extends beyond the room of origin. Meeting this standard also assists in mitigating loss of life, reduction of property damage and protection of the environment. In December 2022, there were 1,236 reported incidents of all types, representing an overall increase of 23 per cent in incidents from December 2021 (Table 1).

Table 1: Total Incidents - December 2022				
	Totals (2022)	Percentage Change from December 2021	Number Change from December 2021 to 2022	5 Year Average for December
Alarm Active No Fire	306	+46	+97	184
Explosion	1	-	+1	0
Fire	33	+10	+3	30
Haz-Mat	12	+50	+4	10
Medical	605	+30	+139	426
MVI	92	+3	+3	93
Public Hazard	5	-55	-6	16
Public Service	124	+9	+10	88
Response Cancelled/Unfounded	54	-23	-16	60
Specialized Transport	4	0	0	4
Tech Rescue	0	-	0	0
Totals	1,236	+23	235	911

The average time on scene in December 2022 for emergency response crews was 37 minutes, which is two minutes higher on average than the number recorded in 2021 of 35 minutes. The time spent on scene can vary due to the nature and severity of each incident.

In December 2022, there were 33 fire incidents reported to the Office of the Fire Commissioner, representing a 10 per cent increase from December 2021. The average number of fires reported each December over the last five years is 30.

Fire damage and property losses during December 2022 are estimated at \$1,095,000. This total includes \$413,000 for building/asset loss and \$682,000 for content loss. The total building/asset and content value at risk is estimated to be \$281,915,398 and the total value preserved from damage was \$280,820,398. These numbers translate to 99 per cent of value protected (Table 2); this value is the same value observed in 2021 which was 99 per cent.

Table 2: Fire Incidents By Type and Loss Estimates - December 2022						
Incident Type Breakdown	Incident Volume	Estimated Building/ Asset Value (\$)	Estimated Building/ Asset Loss (\$)	Estimated Content Value (\$)	Estimated Content Loss (\$)	Estimated Total Value Preserved (\$)
Residential: Single family	4	1,922,300	11,000	600,000	1,000	2,510,300
Multi family	4	2,682,300	500	-	-	2,681,800
Commercial/Industrial	5	127,446,000	377,500	1,234,000	680,500	127,622,000
Outdoor	17	1,000	1,000	500	500	-
Vehicle/Vessel	3	147,992,298	23,000	37,000	-	148,006,298
Totals*	33	280,043,898	413,000	1,871,500	682,000	280,820,398

* The dollar losses shown in this table are preliminary estimates. They are derived from RFR's record management system and are subject to change due to delays in reporting and confirmation of actual losses from private insurance agencies (as available).

Significant Events

Emergency response crews minimized harm, limited damage and stopped fire spread from the place of origin and performed medical interventions in these notable December 2022 incidents:

- December 1, 2022 – Structure Fire on Valmont Way.** Emergency response crews responded to a report of a structure fire. Upon arrival, first-in crews observed smoke and flames coming from the first floor window of a two storey business property. Crews attacked the fire from the outside of the structure and were able to contain it prior to making entry. Adjacent business units were protected using positive pressure ventilation and no fire extension beyond the suite of origin was present. There were no occupants within the structure and no reports of injuries to the public or staff. A Fire Investigator attended.
- December 12, 2022 – Residential Fire on Moffatt Road.** Emergency response crews were dispatched to a fire on Moffatt Road. On arrival, crews found a fire in an abandoned house. Crews quickly controlled and extinguished the fire. There were no occupants within the structure and no reports of injuries to the public or staff. A security guard was deployed to the site to ensure that the property was safely secured overnight. A Fire Investigator attended.
- December 16, 2022 – Hazardous Materials on Arcadia Road.** Emergency response crews responded to a report of five youths who had discharged a pepper spray type of product in a building. RCMP arrived on scene and conducted an initial investigation. The Hazardous Materials (HazMat) team conducted air sampling in the hallways to make sure the building was safe for residents to re-enter. Staff reported that the scene was under control and there were no injuries reported to the public or staff. HazMat technicians completed their air sampling and chemical testing throughout the building. Crews ventilated the remaining floors of the building and the RCMP continued their investigation.

- **December 17, 2022 – Smoke on Triangle Road.** Emergency response crews responded to a report of heavy smoke coming from the rear of an ice arena. Arena staff had evacuated the building. First on scene crews identified that the heavy smoke was coming from a roof top air exchange unit on the north-east side of the arena. Crews proceeded to the roof area and were able to quickly extinguish the fire and shut power and gas off to the unit. Crews used a hose line to complete the extinguishment and cool the unit. Crews used positive pressure ventilation to clear the smoke from the arena. Fortis Gas was on scene and inspected the unit to ensure that the gas was shut off properly. There were no reports of injuries to the public or staff. A Fire Investigator attended.
- **December 23, 2022 – Residential fire on Douglas Crescent.** Emergency crews responded to a structure fire. The crews brought the fire under control from a distance due to high voltage wires near the fire location. BC Hydro was contacted to shut off the power for crews to safely extinguish the remaining smouldering area. Public Works attended to assist with the freezing conditions and water supply. There were no reports of injuries to the public or staff. A Fire Investigator attended.
- **December 27, 2022 – Flooding on Mitchell Island.** Emergency crews responded to a commercial property flooding on Mitchell Island. The Public Works staff opened an Operations Centre at the Works Yard and a site incident command post was established at the Mitchell Island site. BC Hydro attended the site to assist with the management of power to the island. Transit buses were brought onsite to prepare to accommodate residents and occupants potentially needing temporary shelter, and the RCMP attended to safely manage traffic flows onto and off the Island. There were no reports of injuries to the public or staff.

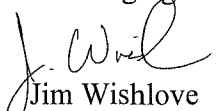
Financial Impact

None.

Conclusion

Throughout 2022, the City continued to experience an increase to normalized levels of service for medical event types. This includes regular and incremental increases to incident volumes that are a return to the normal experience in the years prior to the COVID-19 pandemic. During 2022, another driver of the change in volumes for incidents was the significant weather-related events. RFR crews worked with internal City partners during recent heat, flooding and atmospheric river events during 2022.

Richmond Fire-Rescue continues to monitor activities to identify and create programs to respond to emerging trends.

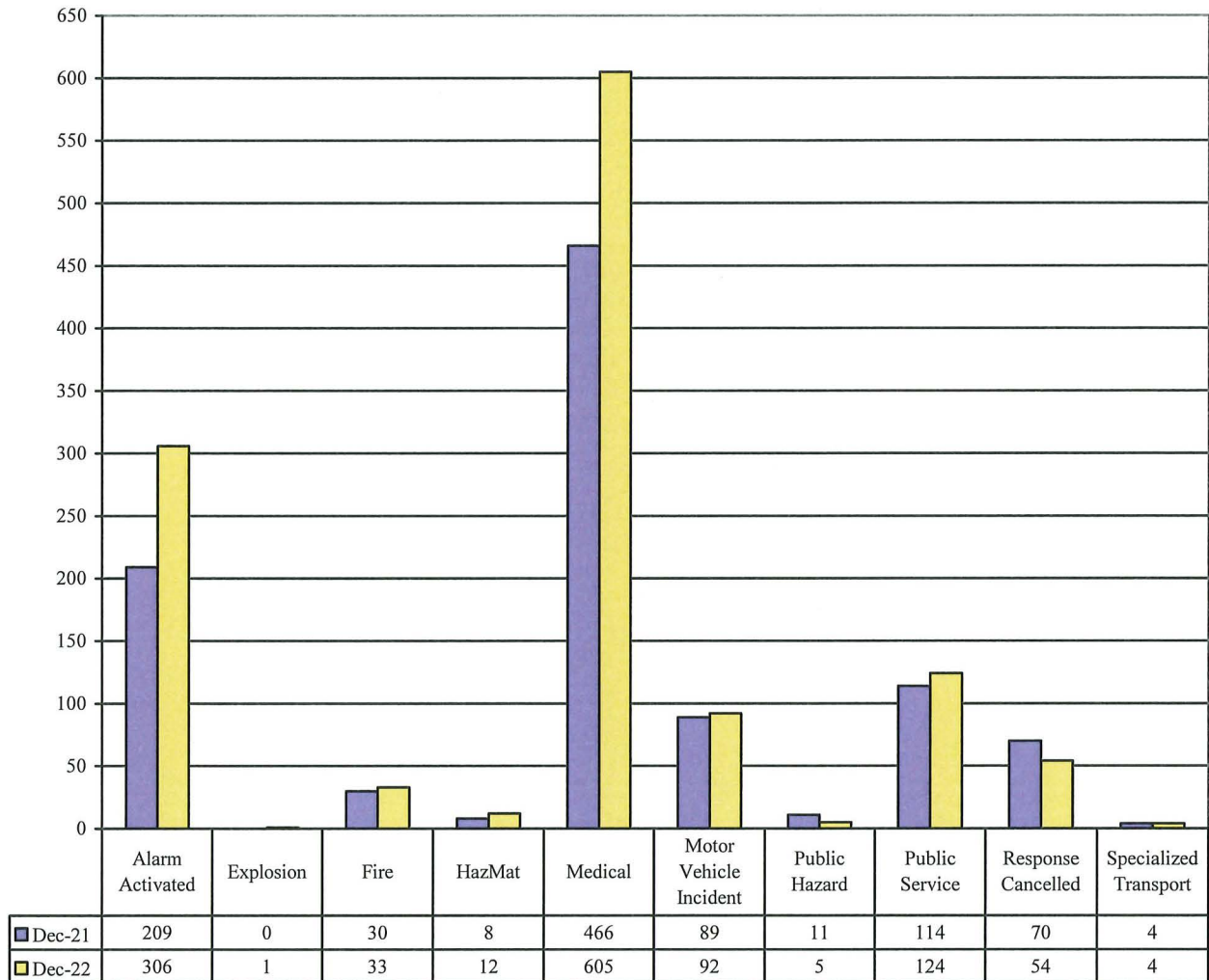

Jim Wishlove
Fire Chief
(604-303-2715)

Att. 1: Suppression Activity, including location of December's Fire, Medical and MVIs

Incident Volumes

The following chart provides a month-to-month comparison regarding incidents occurring in December 2022 and 2021. In December 2022, there were 1,236 incidents, compared to 1,001 in December 2021. This represents an overall increase of 23 per cent.

Table 3a: December 2021 & December 2022 Incident Volumes



Incident Type Legend:

HazMat: includes fuel or vapour; spills, leaks, or containment

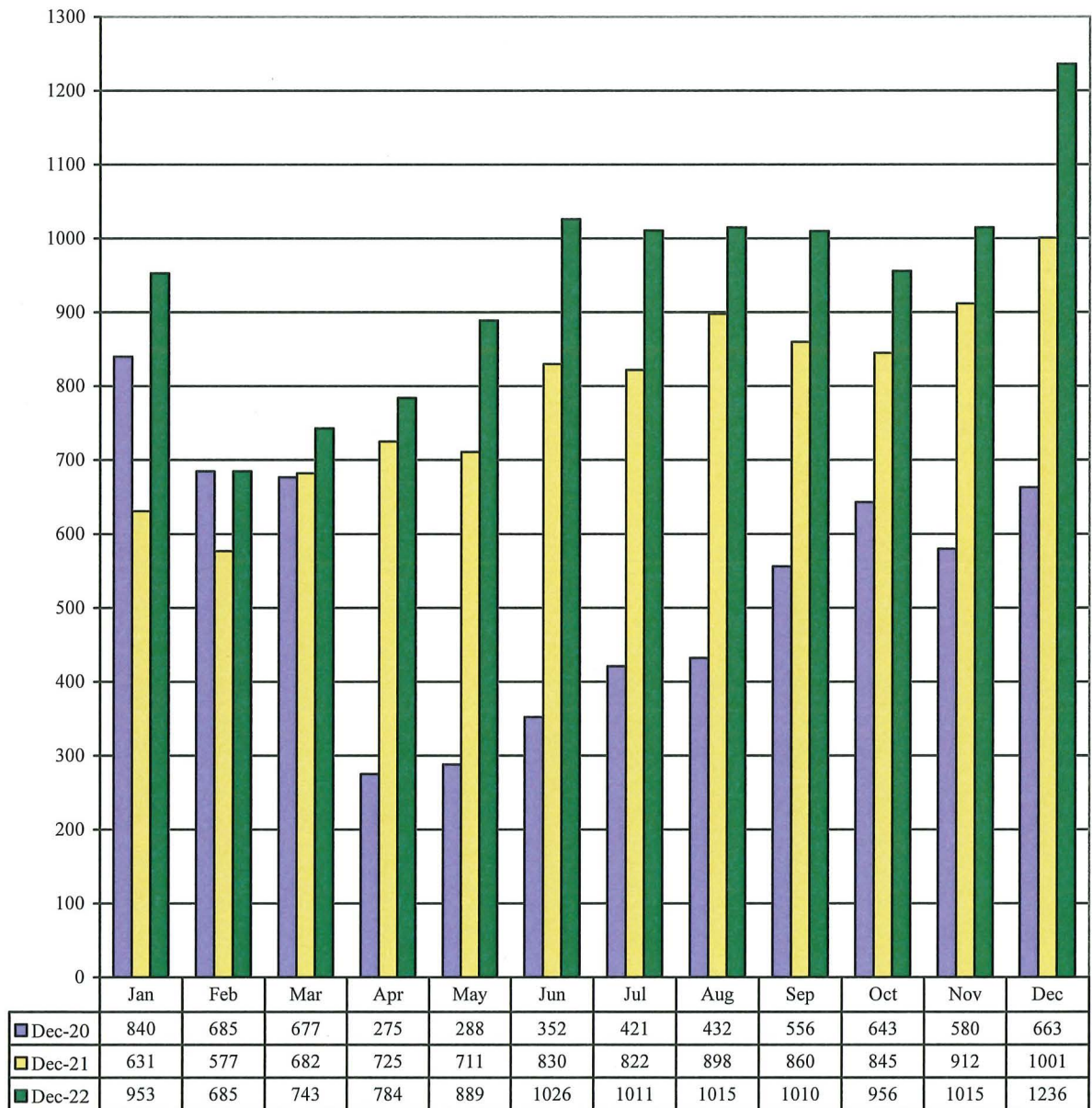
Medical includes: cardiac arrest, emergency response, home or industrial accidents

Public Hazard includes: aircraft emergency, bomb removal standby, object removal, or power lines down

Public Service includes: assisting public, ambulance or police, locked in/out, special events, trapped in elevator, water removal

The following chart provides the total incident volumes on a month to month comparison occurring in 2020, 2021 and 2022, showing the impact of the pandemic on call volumes during 2020 and 2021. In 2022, due to changes in the Provincial Health Orders and Medical Health Officer's direction, there has been a return back to pre-pandemic levels of service for medical event types and ultimately higher responses to medical calls.

Table 3b: 2020, 2021, 2022 Total Incident Volumes



First Responder Totals

Medical first responder incidents comprised 49 per cent of the total emergency responses for RFR during the month of December 2022. A detailed breakdown of the medical incidents for December 2021 and 2022 is set out in the following table by sub-type. There were 605 medical incidents in December 2022 compared to 466 in December 2021, an increase of 30 per cent.

Table 4a: December 2021 & December 2022 Medical Calls by Type

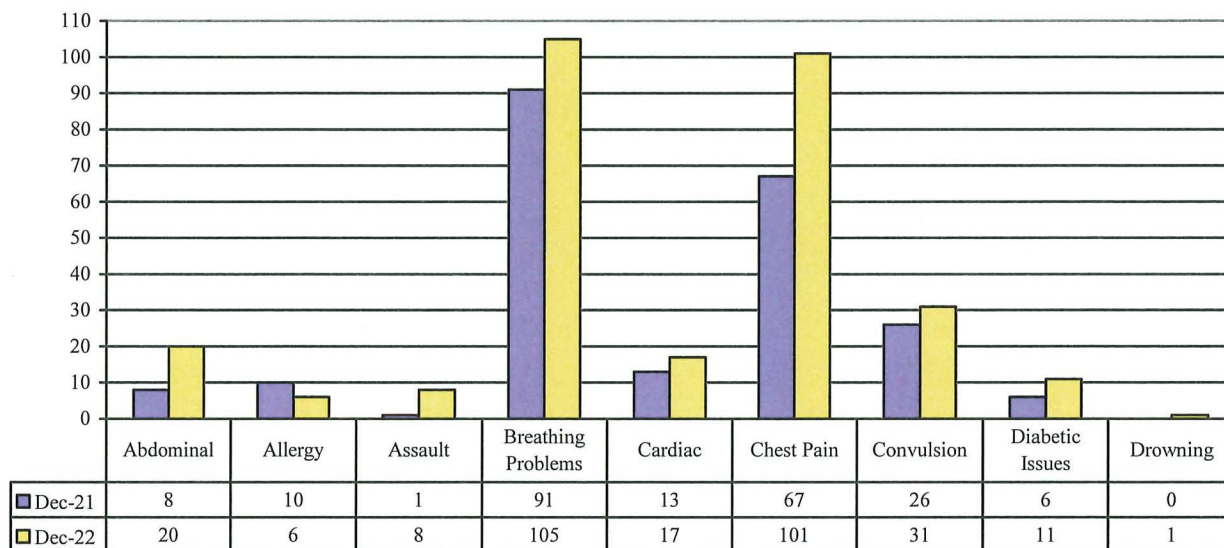
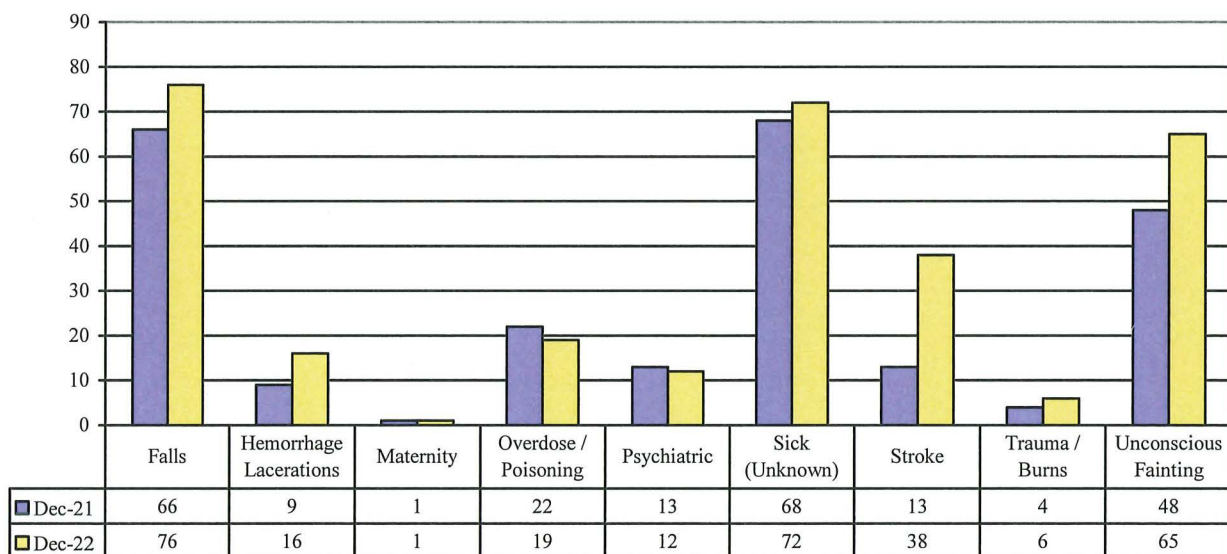


Table 4b: December 2021 & December 2022 Medical Calls by Type



The following charts provide total incident volumes on a year-to-year comparison from 2013 to 2022. In 2022 medical event types and responses to medical aid calls began to return to pre-pandemic levels.

Table: 4c Total Calls for Service by Year									
2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
9,710	9,645	10,326	10,947	11,216	9,805	9,494	6,412	9,494	11,323

Table 4c: Total Fire Calls for Service from 2013 to 2022

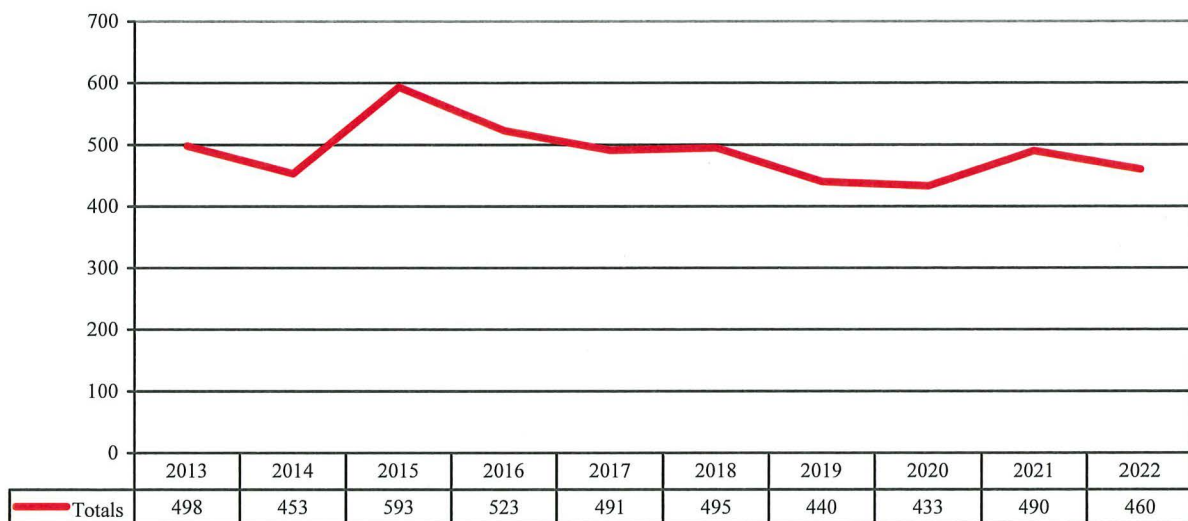
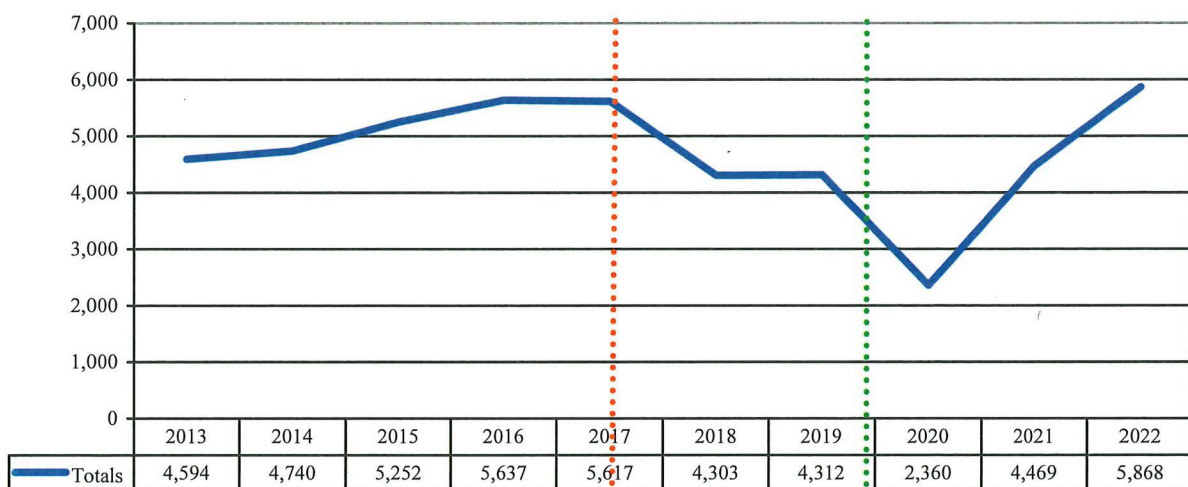


Table 4d: Total Medical Calls for Service from 2013 to 2022



Changes to BC Emergency Health Services Clinical Response Model dispatch system (2017-2018)

Start of pandemic

Fire Investigations

The fire investigation statistics for December 2022 are listed below:

Table 5: Total Fire Investigation Statistics – December 2022			
	Suspicious	Accidental	Undetermined
Residential - Single-family	1	2	1
Residential - Multi-family	0	4	0
Commercial/Industrial	1	3	1
Outdoor	2	11	4
Vehicle	1	2	0
Totals	5	22	6

Richmond Fire-Rescue investigators report all suspicious fires to the RCMP, while working alongside RCMP staff to address potential risks to the community.

Hazardous Materials

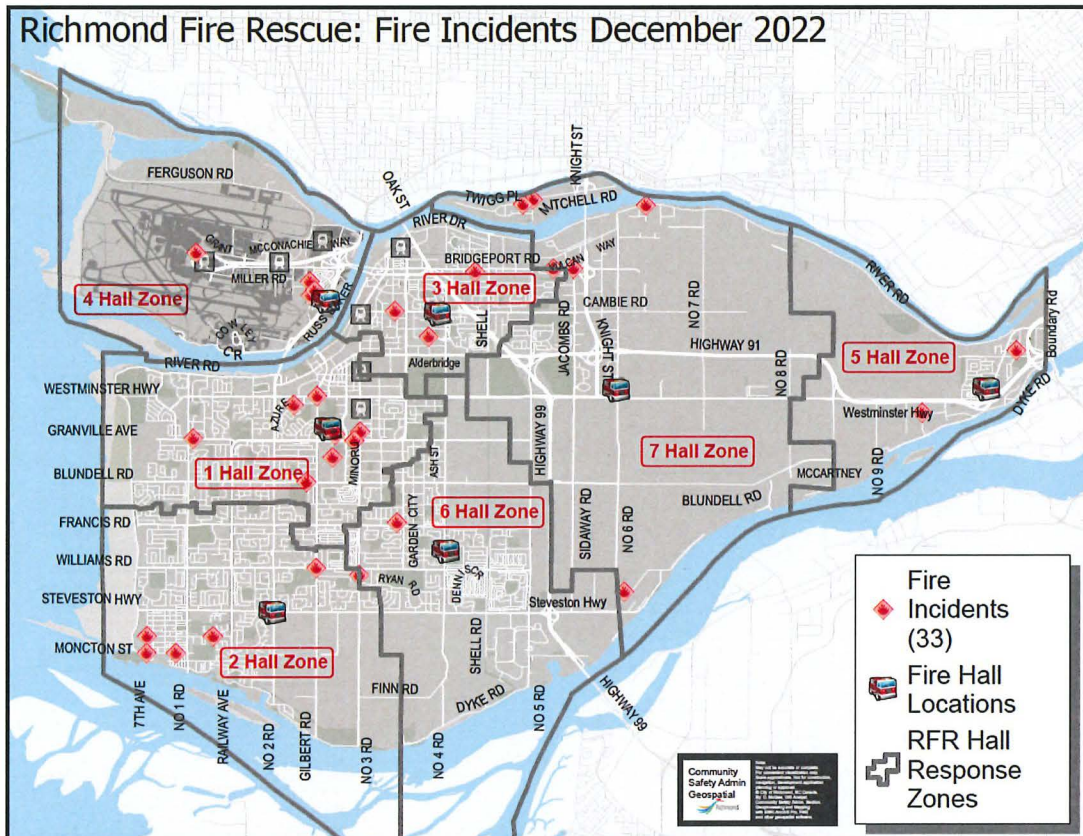
Table 6: Hazardous Materials Incidents By Type – December 2022	
	Details
Fuel Spill, Standby	1
Flammable / Combustible Liquids	1
Gasses (Natural / Propane)	8
Unclassified	1
Totals	11

Freedom of Information Requests

In 2022, Richmond Fire-Rescue received 83 Freedom of Information requests. This is a reduction in the number of requests received in 2021.

Table 7: Freedom of Information Requests for 2021 & 2022	
2021	2022
85	83

Figure 1: Location of reportable fires attended in December 2022 (total 33)



**Richmond Fire Rescue:
Relative Density of Locations for 33 Fire Incidents
December 2022**

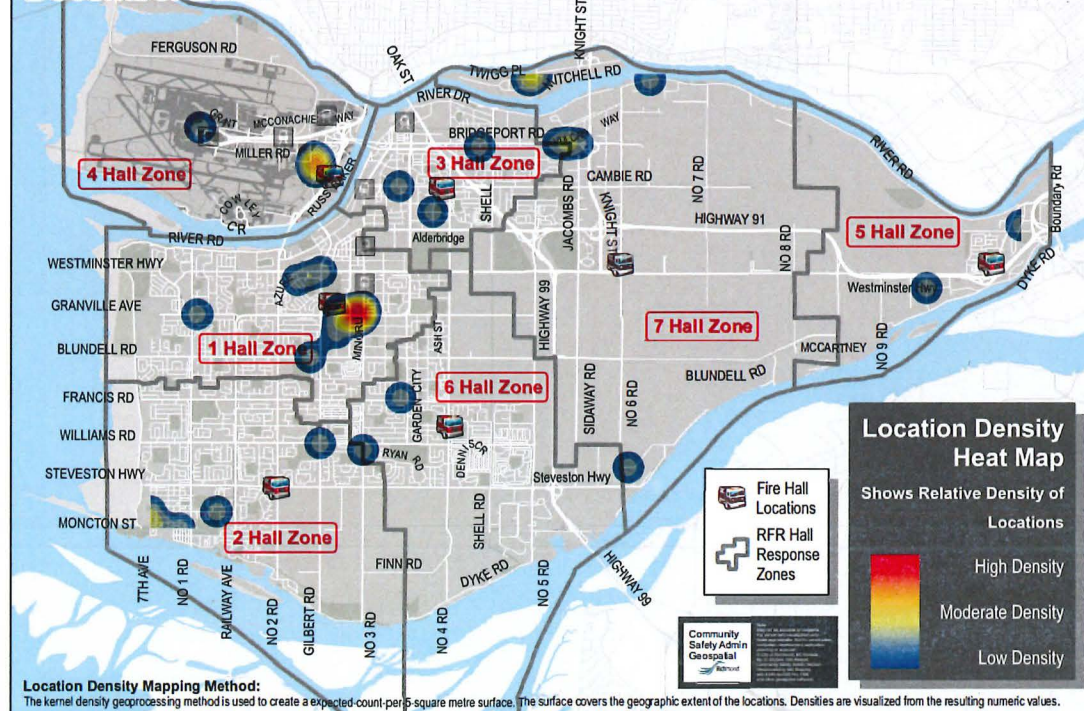
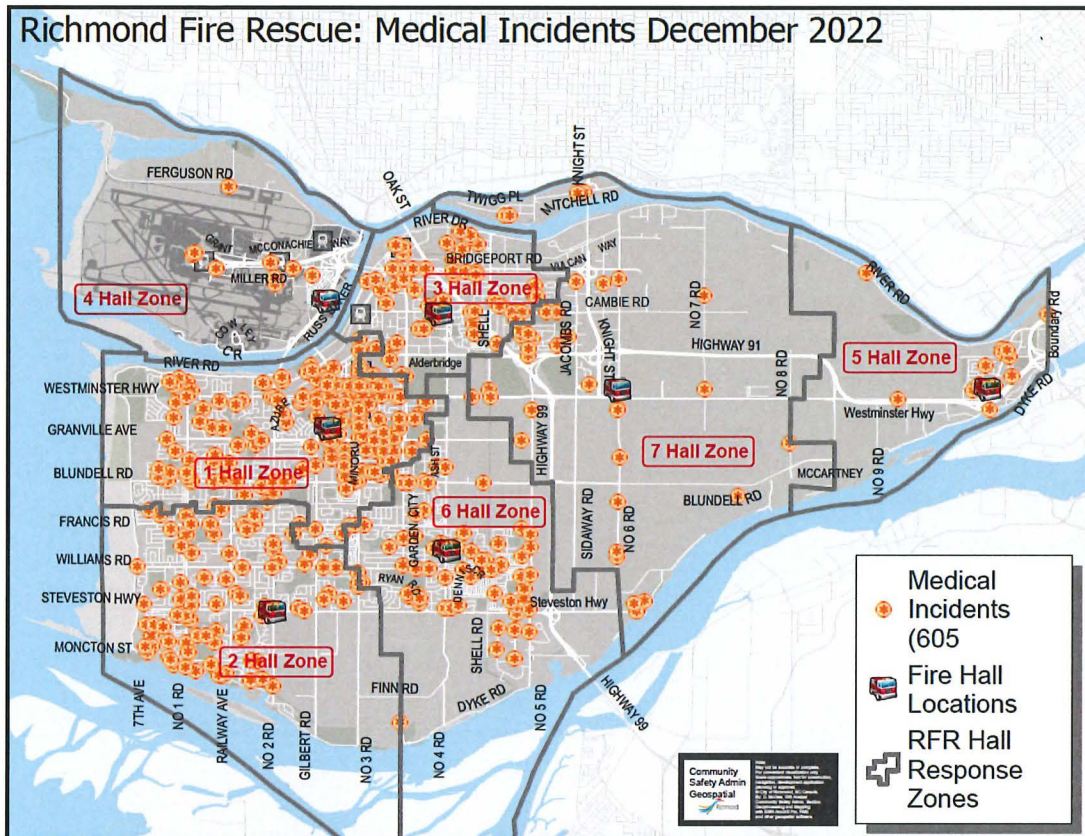


Figure 2: Location of Medical Incidents in December 2022 (total 605)



Richmond Fire Rescue:
Relative Density of Locations for 605 Medical Incidents
December 2022

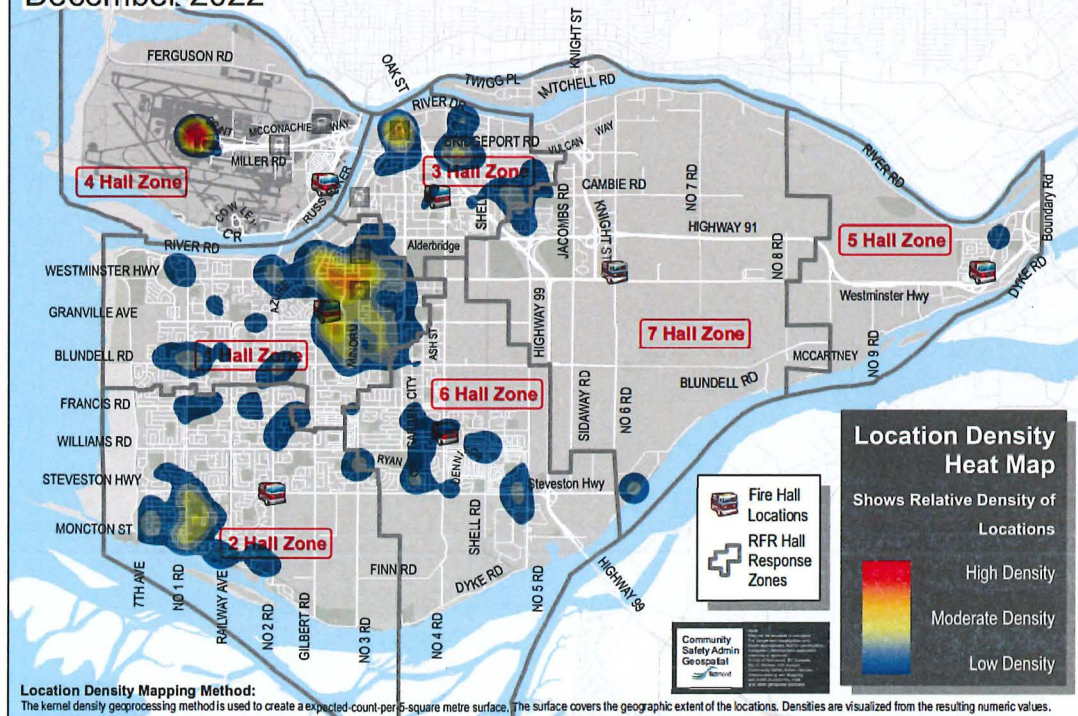


Figure 3: Location of MVI Incidents in December 2022 (total 92)

