



CITY GATE
ASSOCIATES

Fire Department Services Evaluation

CITY COUNCIL BRIEFING

Shakopee Fire Department

February 20, 2023



Policy Choices

- No federal or state laws or regulations in the U.S. mandating fire service **staffing levels**, **response performance**, or **outcomes**
 - If fire services are provided, state and federal safety regulations apply
- The level of fire service provided is a **local policy decision**
 - Communities have the level of service they can **afford** or which they **choose to fund**
 - The level of service may not be the desired level of service

Outcome Goals Drive Deployment

- The goal of fire service deployment is to deliver desired **outcomes**
- Typical **urban** community desired outcomes:
 - **Prevent death and/or permanent impairment** from medical emergencies where possible
 - Confine building fires to the **room or compartment of origin**
- Balance the “speed” and “weight” of the response
- Desired outcomes require **adequate staffing, apparatus types, and response time**

Three Key Challenges and Positives

Three Key Challenges

1. Management Culture—Accountability and Quality Control
2. Adherence to Safety and Standards
3. Adequate Staffing and Deployment

The Positives

- Effective leadership desired
- Improvements embraced and already underway
- There is strong support to reboot culture and programs

Risk Assessment

Risk Assessment Methodology

- Establish geographic **planning sub-zones**
- Identify/quantify **values at risk** to be protected
- Identify **hazards** likely to impact service area
- Determine **probability** of a future hazard occurrence
- Identify likely **impact severity** of a hazard occurrence
- Determine **overall risk** by hazard and planning zone

Hazards Evaluated

1. Building Fire
2. Vegetation/Wildland Fire
3. Medical Emergency
4. Hazardous Material Release/Spill
5. Technical Rescue
6. Marine Incident

Values at Risk to be Protected

- Total service area resident population **47,008**
 - Buildout population estimate **65,000**
- Service area: **51.5** sq. mi.
 - **17,000** residential housing units and 2,600 other buildings
 - **1,200** businesses with **26,000** employees
 - **41** critical facilities
 - Multiple natural resources
 - “Entertainment capital of Minnesota”

Overall Risk Categories

Probability of Occurrence	Probable Impact Severity				
	Insignificant	Minor	Moderate	Major	Catastrophic
Rare	<i>Low</i>	<i>Low</i>	<i>Low</i>	<i>Moderate</i>	<i>High</i>
Unlikely	<i>Low</i>	<i>Low</i>	<i>Low</i>	<i>Moderate</i>	<i>High</i>
Possible	<i>Low</i>	<i>Low</i>	<i>Moderate</i>	<i>High</i>	<i>Extreme</i>
Probable	<i>Low</i>	<i>Low</i>	<i>Moderate</i>	<i>High</i>	<i>Extreme</i>
Frequent	<i>Low</i>	<i>Moderate</i>	<i>High</i>	<i>Extreme</i>	<i>Extreme</i>

Overall Service Area Risk Analysis

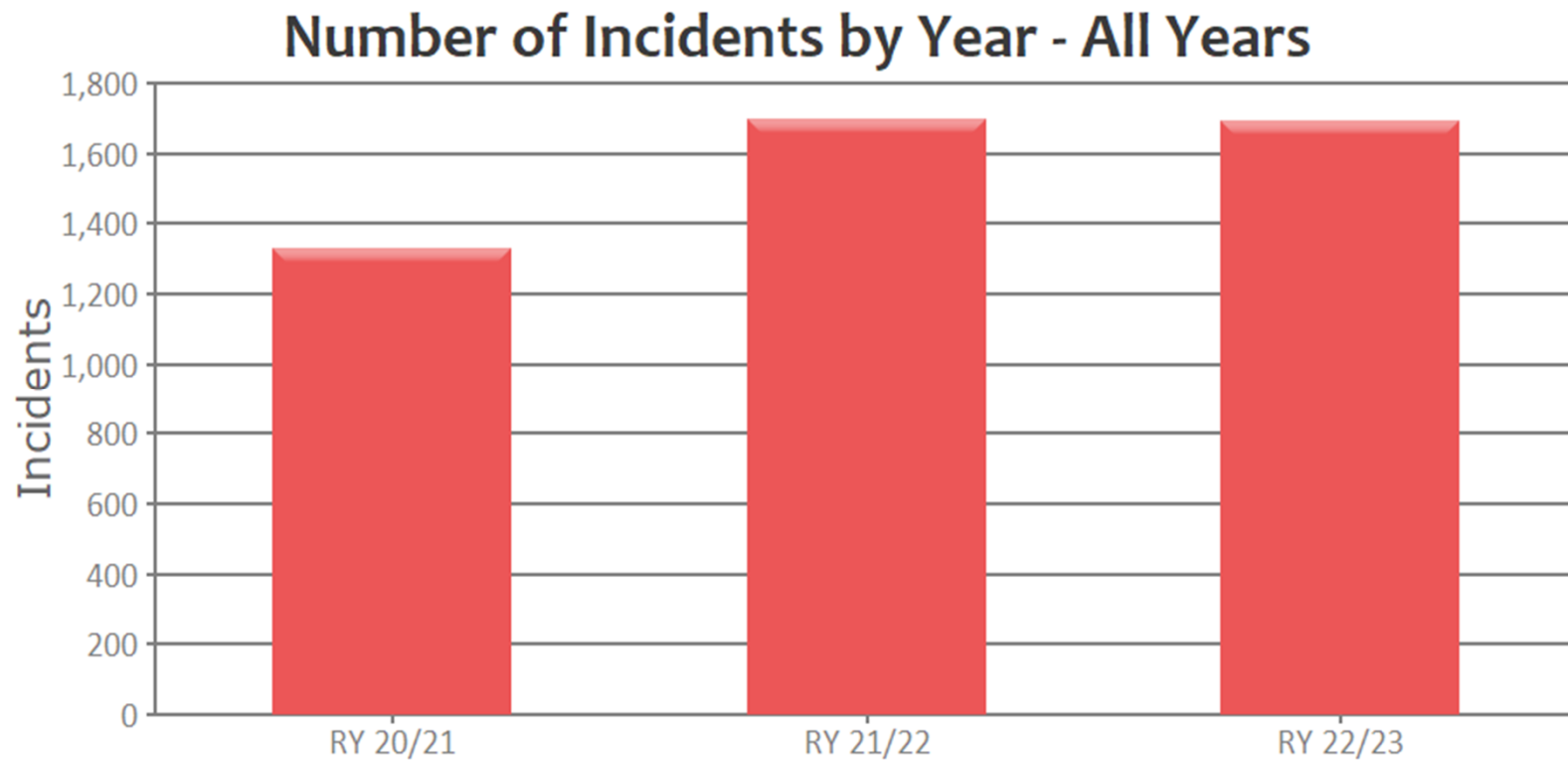
Overall Risk Ratings by Hazard and Planning Zone

Hazard	Planning Zone	
	Station 1	Station 2
Building Fire	<i>Moderate</i>	<i>Moderate</i>
Vegetation/Wildland Fire	<i>Low</i>	<i>Low</i>
Medical Emergency	<i>High</i>	<i>High</i>
Hazardous Materials	<i>Moderate</i>	<i>Moderate</i>
Technical Rescue	<i>Moderate</i>	<i>Moderate</i>
Marine Incident	<i>Moderate</i>	<i>Moderate</i>

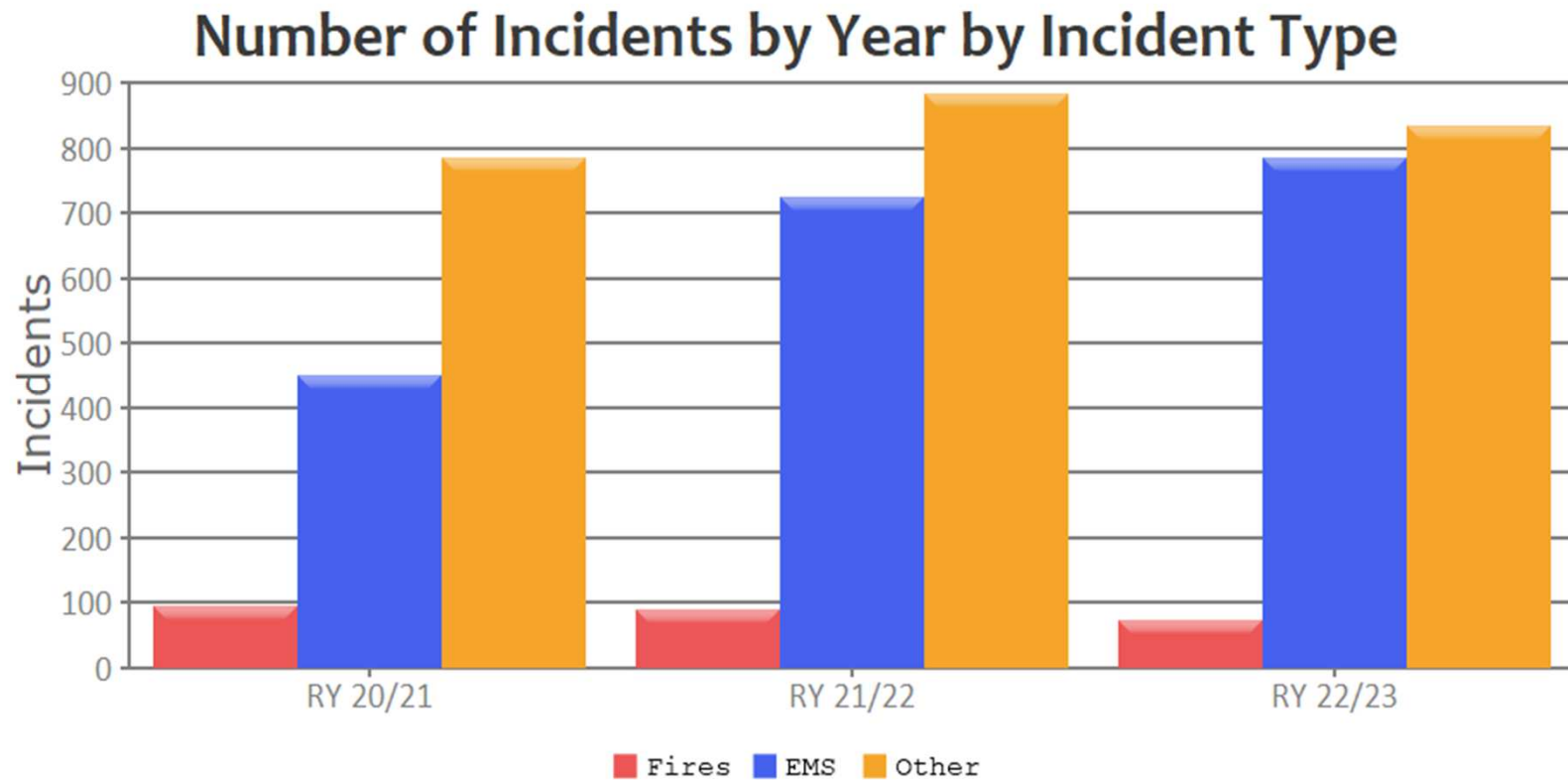
Service Demand



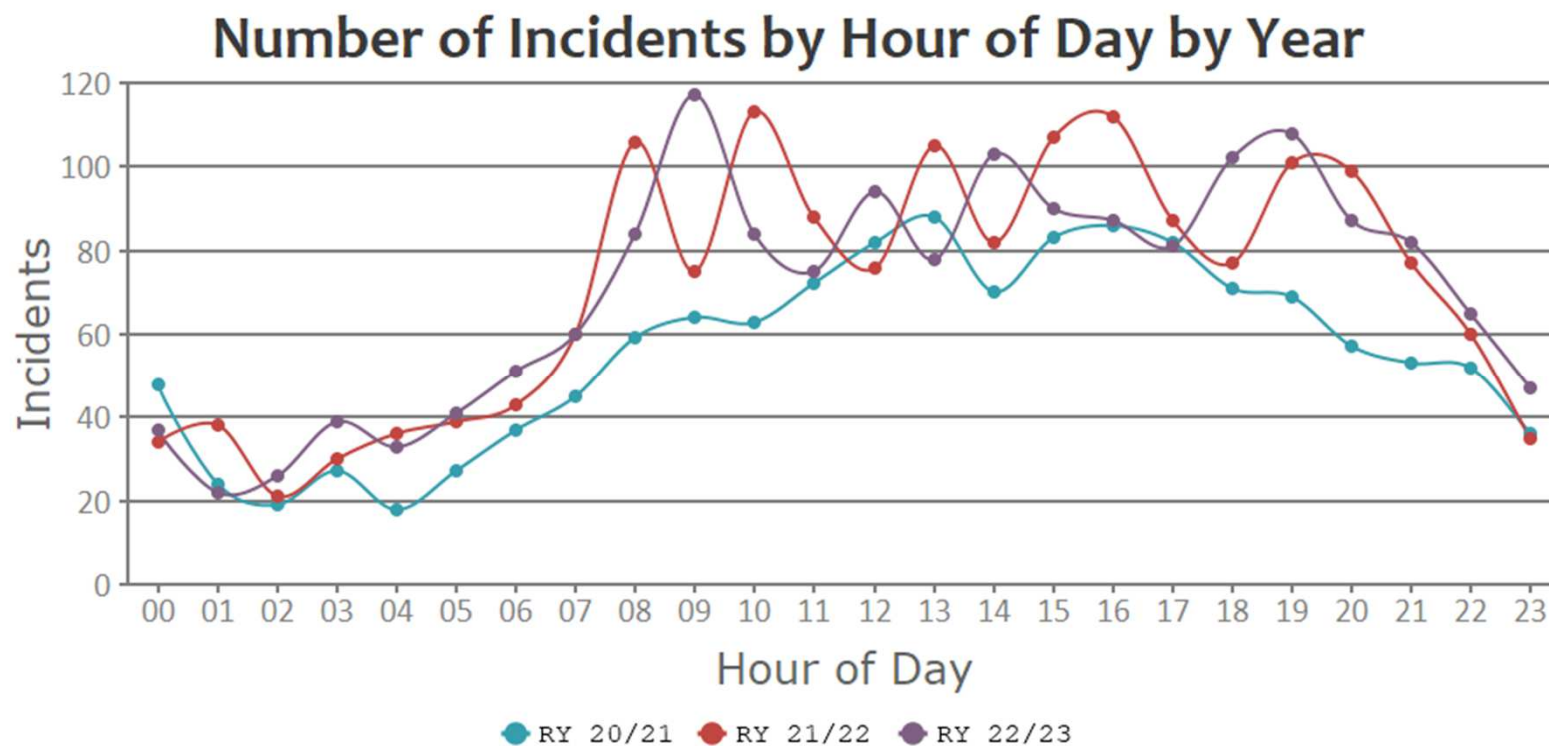
Service Demand by Year



Service Demand by Incident Type – FD Responses



Service Demand by Time of Day

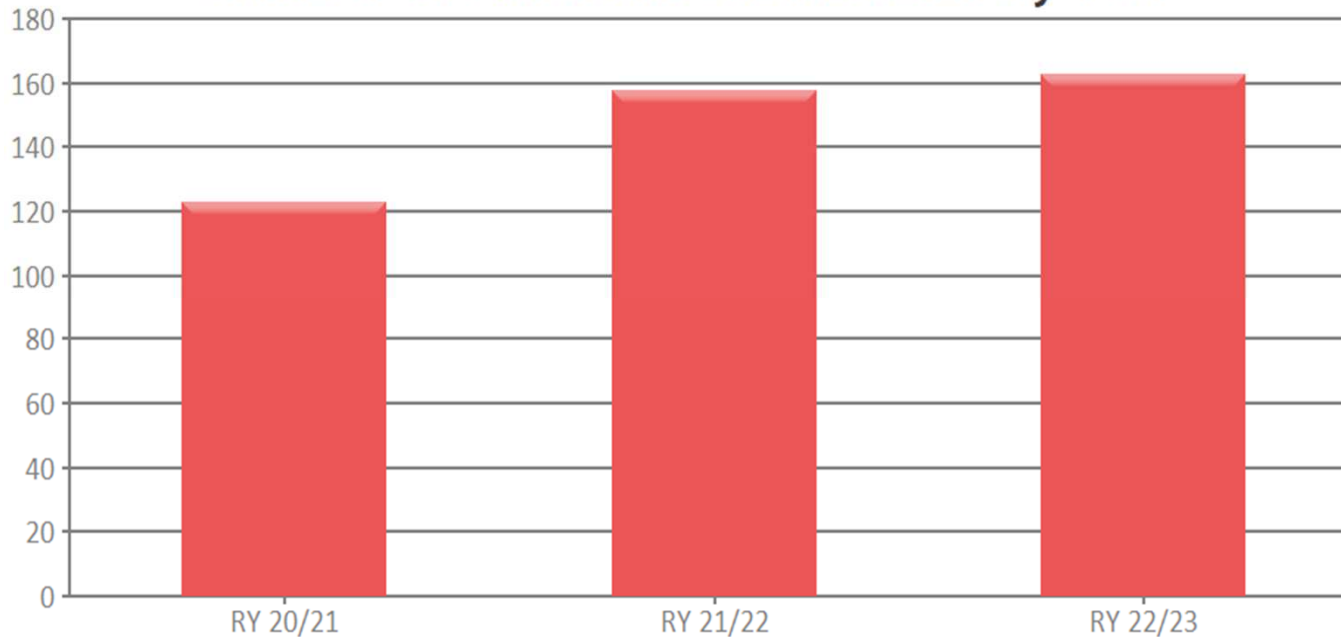


Simultaneous Incident Activity

1 or more simultaneous incidents: 9.63%

2 or more simultaneous incidents: 0.83%

Number of Simultaneous Incidents by Year



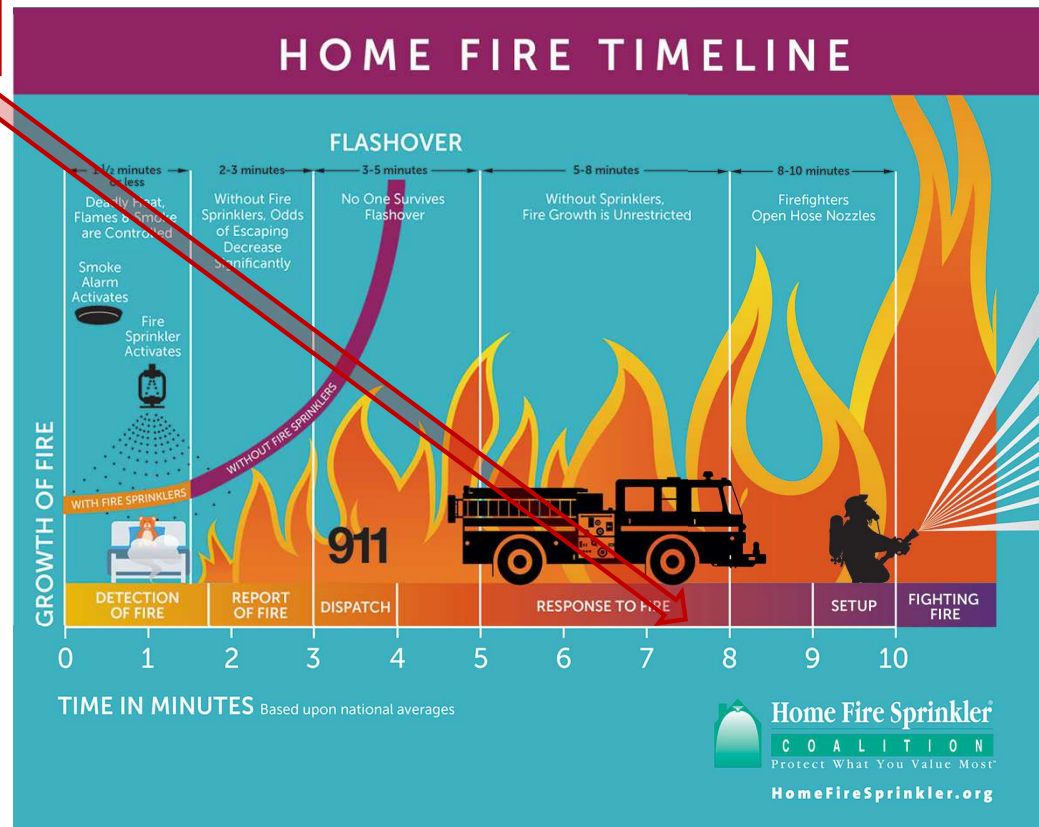
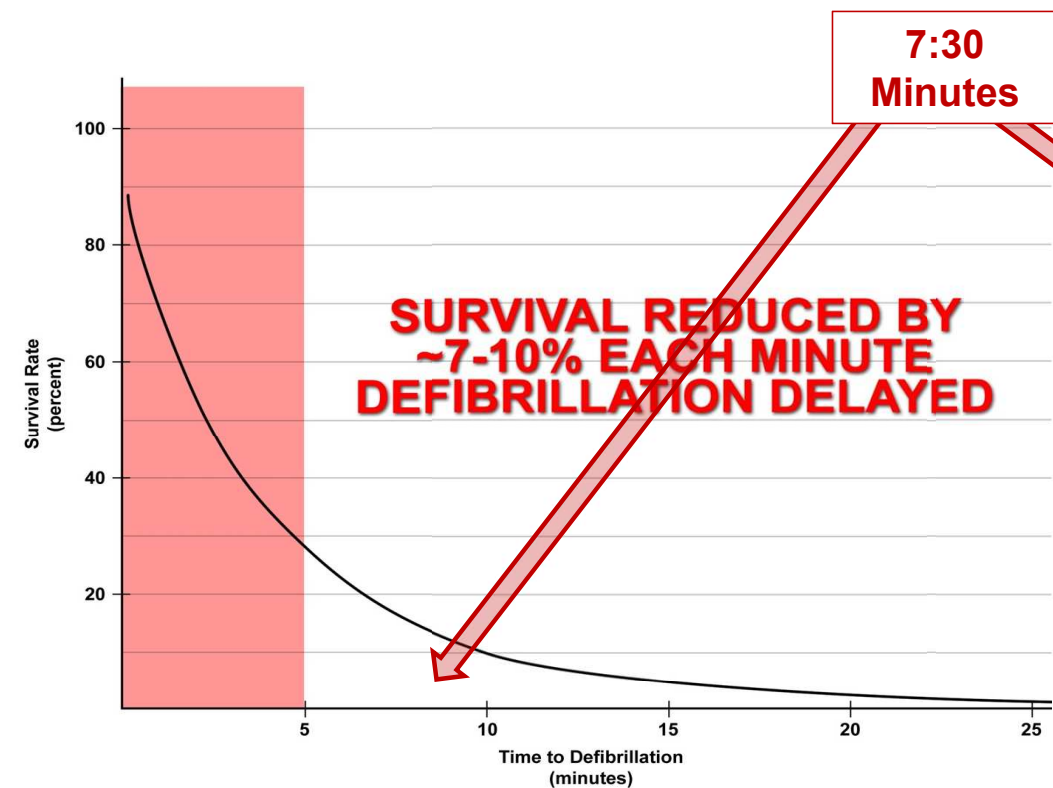
EMS Incident Demand by Area – Allina and City

City / Community	2022 Responses
Shakopee	3,147
Jackson Township	81
Louisville Township	72
Total	3,300

- In 2022, City Police responded 1,651 times—an average of 4.5 times per day
- In 2022, Fire responded 785 times, or 2 times per day
- Allina responded 1,000 times more than the above to low-acuity incidents
- Approximately 2,000 incidents per year in the City, or 5.5 per day

Response Performance

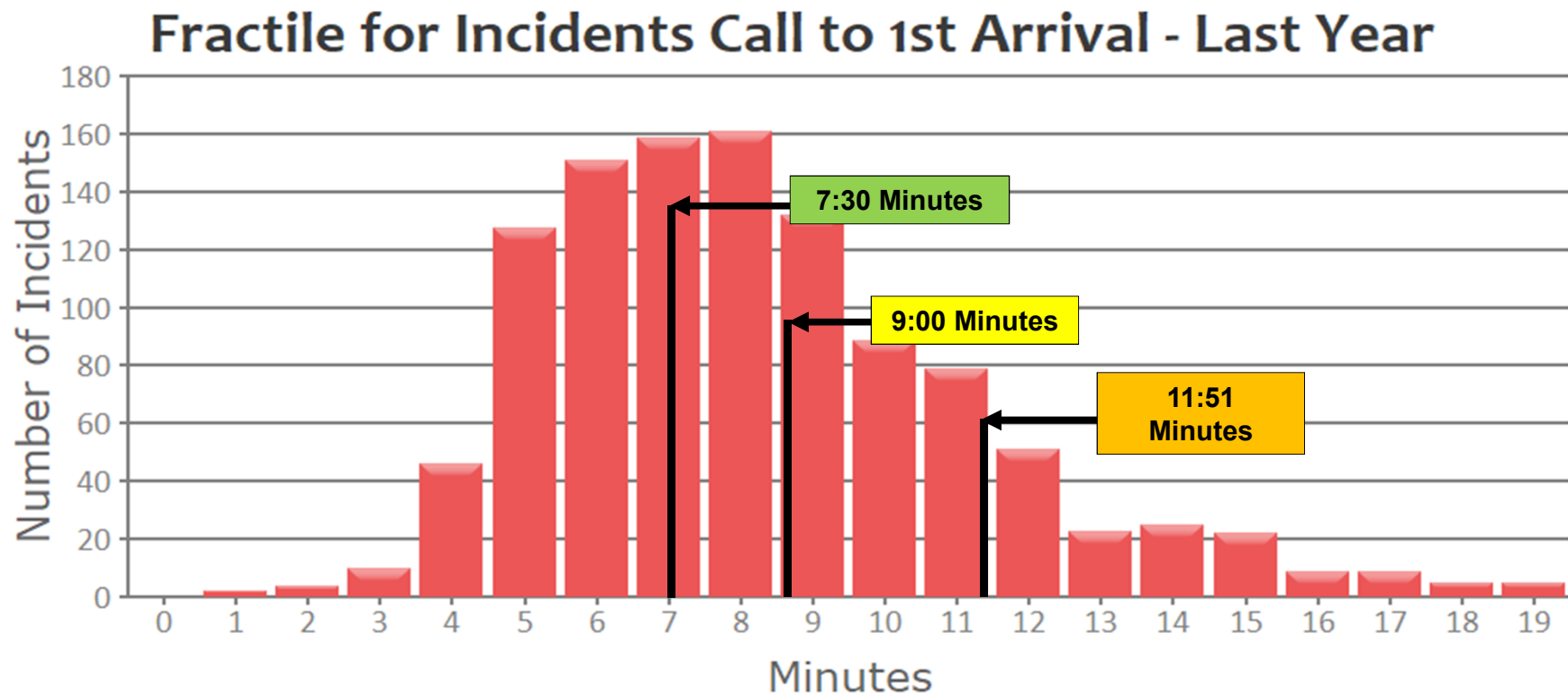
Response Goals

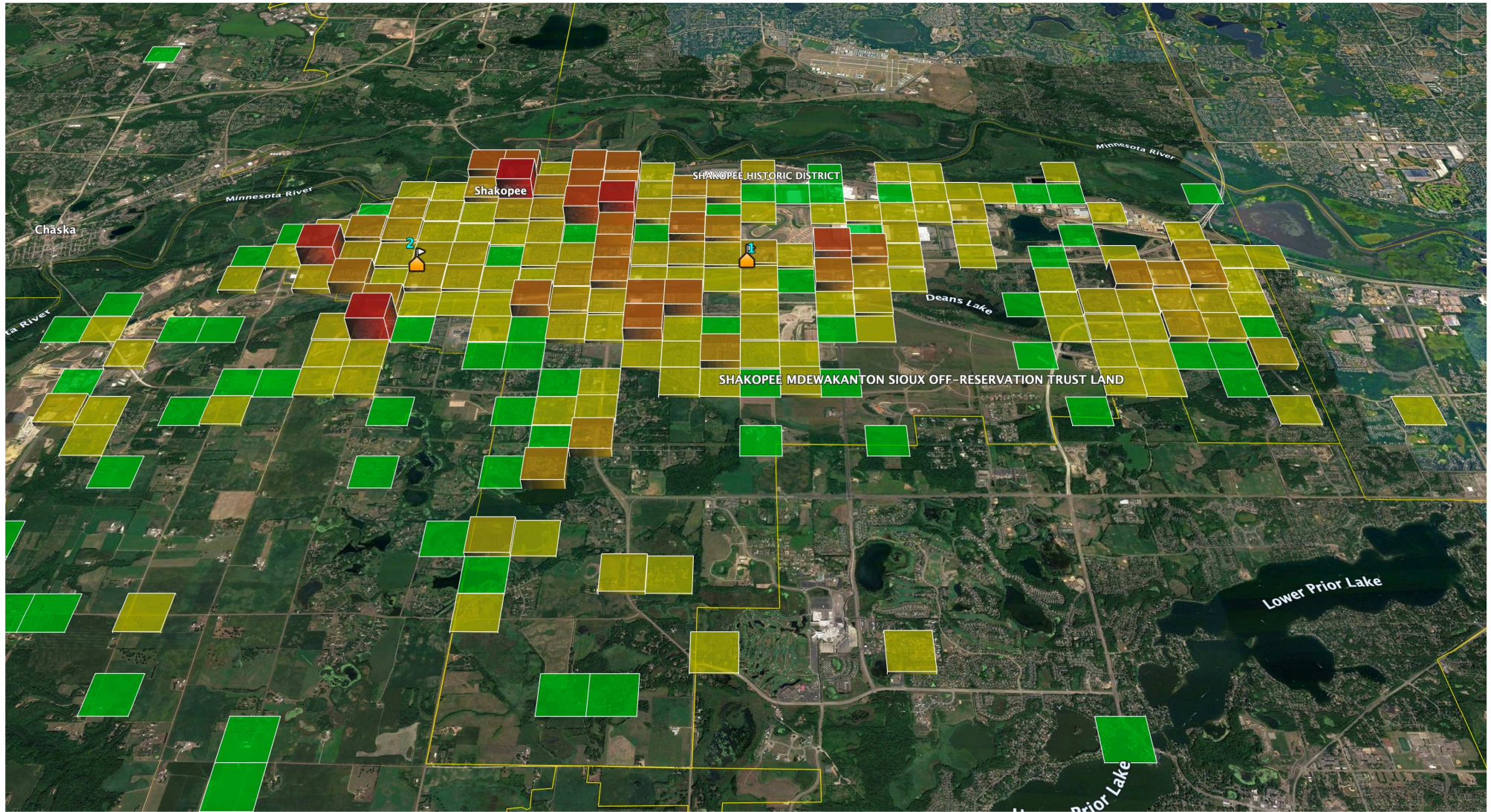


Response Performance to Fire/EMS Calls (22/23)

Response Component	Best Practice		90 th Percentile Performance	Performance Versus Best Practice and Citygate
	Time	Reference		
Call Processing / Dispatch	1:30 0:64 Critical	Citygate NFPA	3:01	+ 1:31 sec
First-Unit Call-to-Arrival	7:30	Citygate	11:51	+ 4:21 min
Effective Response Force Travel	8:00	NFPA	20:12 – 24:10	+ 14:15 min

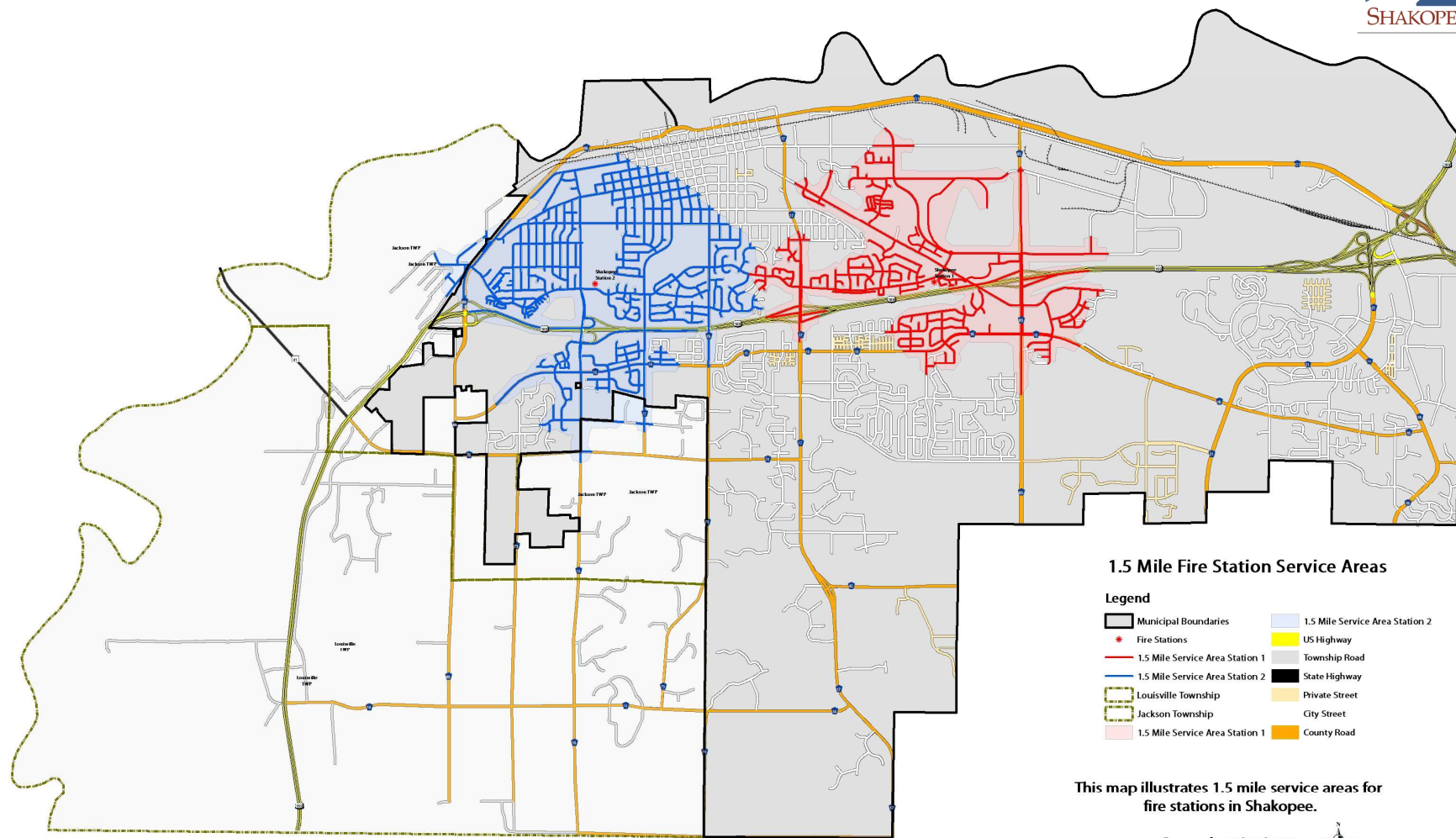
Travel Time by Minute to 90% of Fire/EMS Calls





Incident Volume

Geographic Coverage – Travel Time



1.5 Mile Fire Station Service Areas

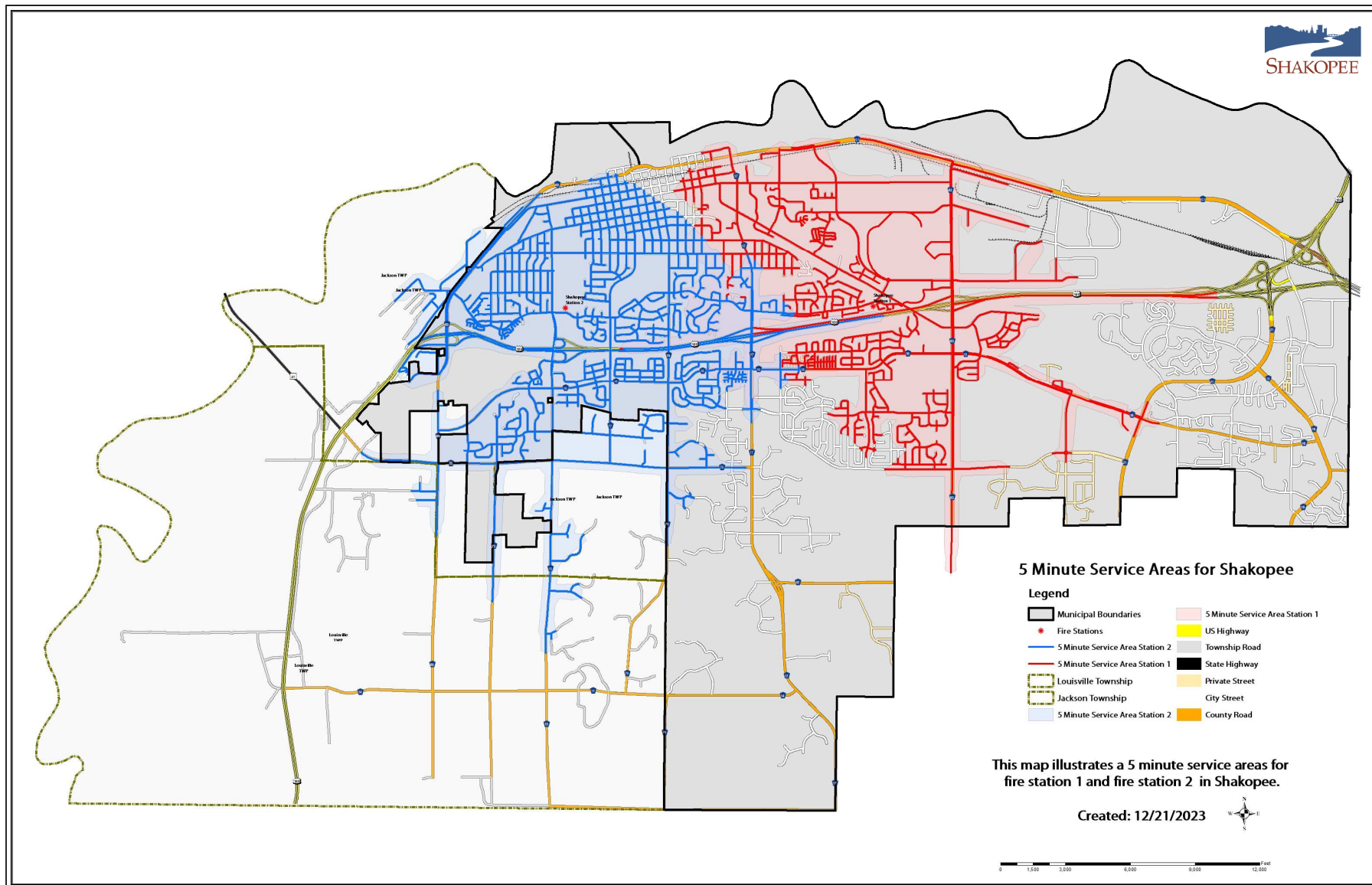
Legend

- Municipal Boundaries
- Fire Stations
- 1.5 Mile Service Area Station 1
- 1.5 Mile Service Area Station 2
- Louisville Township
- Jackson Township
- 1.5 Mile Service Area Station 1
- 1.5 Mile Service Area Station 2
- US Highway
- Township Road
- State Highway
- Private Street
- City Street
- County Road

This map illustrates 1.5 mile service areas for fire stations in Shakopee.

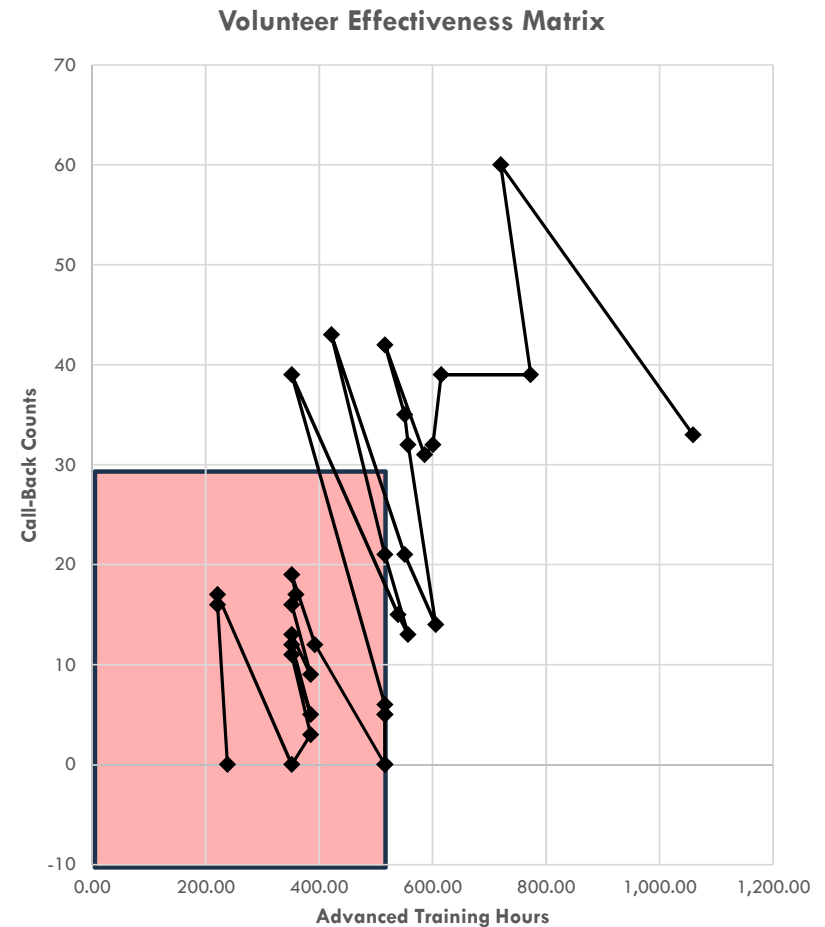
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Part-Time Firefighter Staffing

- Low callback hours are of serious concern as most callback incidents do not see more than approximately five firefighters in less than 10:00 minutes
- With just four on duty, it would take another 11 callback firefighters *quickly* to make up an effective attack on a modest house fire, much less a commercial building
- Just 10 part time firefighters have high commitment times to callback and training



Deployment Findings

- Need adopted response time policy
- Station locations are adequate
- Both Stations need 24/7/365 staffing
- First-unit response time performance is slower than recommended given most responses from only Station 1
- Part-time workforce is at its limits due to on-duty scheduling
- Callback to urgent emergencies very weak
- “Dual roles” for rank and pay for some career and part-time are not within regulatory best practice

Deployment Recommendations

- Adopt response time goals
- Convert to regular part-time and career staffing
- Reform roles and pay to singular structure
- Convert part-time firefighters to state PERA pension
- Staff *each* station 24/7/365 with a 4-firefighter crew
- Transition first response EMS to be mostly fire units
- Remodel both stations for 24-hour-scheduled crews

Fire Administration Programs

Management Programs Key Findings

- Training program lacks rigor, annual schedule, and accountability
- The training does not come close to being in balance with the state's 11 Core Elements
 - *Chief Scott can update on significant changes since December '23*
- Current administrative staff at or over workload capacity
- No current or comprehensive policies and procedures
- Fire prevention workload at capacity due to growth in demand post-peak COVID-19
- Need for succession plan—Fire Chief, Deputy Chiefs, Fire Marshal

Fire Administration Staffing Recommendations

- Current 4 full-time positions
 - Fire Chief, Asst. Chief, Admin. Captain, Fire Marshal
 - Three of the four are also part-time (dual role)
- Immediate Improvements
 - Reclassify Asst. Chief and Captain to 2 Deputy Chiefs
 - Add an Administrative Assistant
 - Use *current* 2024 budget for 3 supervisors to be 3 Fire Captains for 24/7/365 crew supervision
 - Add 2 firefighters to improve crew staffing

Emerging Recommendations (cont.)

- Provide full-time management for **Standards – Safety – Accountability**
- Fire Chief
- Deputy Chief – Training
- Deputy Chief – Administration
- Fire Marshal and Fire Inspector
- Administrative Assistant
- Stop dual role employment
- Fire Crews
 - Add Fire Captains, 1 per crew
 - Add Battalion Chiefs for command and supervision, one per platoon, 24/7/365
 - Final force to be 18 career firefighters, 6 Fire Captains, 3 Battalion Chiefs
 - A smaller force of trained, part-time firefighters capable of some assigned shift coverage and robust emergency callback

Staffing Phased Changes

- **2024**
 - Convert to 2 Deputy Chiefs; add 1 Administrative Assistant
 - Add 3 Captains and 2 firefighters (total: 9 full-time); also apply for the SAFER grant
- **2025**
 - Add 1 Fire Inspector—Reduce business impacts when fire crews leave
 - Add 3 Captains and 6 firefighters; staff Station 2 24/7/365
- **2026**
 - Add 6 firefighters, bringing total career line staff to 24 across 3 platoons
- **2027**
 - 3 Battalion Chiefs on shift for command and oversight

Phasing – Four Fiscal Years

Step/Position	Total Career Personnel	Added Career Personnel	Annual Net Cost Increase
Present	8		
Step 1 – 2024			
Headquarters		1	
Captains		3	
Firefighters		2	
Total Count and Costs	14	6	\$44,414
Step 2 – 2025			
Headquarters		1	
Captains		3	
Firefighters		6	
Total Count and Costs	24	10	\$1,045,117
Step 3 – 2026			
Firefighters		6	
Total Count and Costs	30	6	\$502,500
Step 4 – 2027			
Battalion Chiefs		3	
Step 4 Net Costs	33	3	\$121,901
Total			\$1,713,932

Conclusion

- Operate a robust Department meeting risks, desired outcomes, and needs
- Quality training to state standards and measured accountability
- Improve timely deployment staffing—reliable and resilient
- Increased coordinated regional First Alarm response
- Maintain and improve the two stations as needed
- Support robust fire prevention and public education 40-hour staffing
- Limit risk exposure and mandated training by not providing every type of special incident response

Next Steps

Near-Term

- Review and absorb the content, findings, and recommendations of this report
- Consider adopting revised response performance measures as recommended
- Ask staff to return with the costs and phasing to implement the study's recommendations as desired by the City Council
- Identify funding to begin phasing/implementation Step 1

Longer-Term

- Consider applying for federal firefighter staffing (SAFER) grants
- Identify funding for the repairs or modifications needed to provide 24/7 staffing from both fire stations
- Work with other local fire departments and the Sheriff's Office to improve 9-1-1 center performance time for serious emergencies
- Monitor response performance against adopted goals

Discussion