



# Memorandum

**TO:** PUBLIC SAFETY, FINANCE AND  
STRATEGIC SUPPORT COMMITTEE

**FROM:** Robert Sapien, Jr.

**SUBJECT: FIRE DEPARTMENT OPERATIONS  
ANNUAL REPORT**

**DATE:** April 3, 2024

Approved

Date

4/11/2024

## **RECOMMENDATION**

Accept the annual report on San José Fire Department call volumes and emergency response time performance metrics.

## **BACKGROUND**

As specified in the Public Safety, Finance and Strategic Support Committee (Committee) Work Plan, the San José Fire Department (Department) is to provide a consolidated annual report regarding emergency response time performance and progress on response time performance improvement strategies contained in the Fire Department Response Time Work Plan, as well as annual call volumes activity with recommendations on potential opportunities to triage calls for service to maximize life-saving and mitigate the impact of fires. The Committee accepted the Department's previous report for emergency response time performance metrics on October 20, 2022<sup>1</sup>, and the call volume status report was accepted on March 16, 2023<sup>2</sup>. This report provides a comprehensive outlook on the Department's operational performance, emerging trends, and improvements in critical processes furthering the Department's mission to protect life, property, and the environment.

The San José Fire Department is a high-volume, all-hazards fire department providing fire suppression and rescue services, Advanced Life Support (ALS), and Basic Life Support (BLS) services, as well as specialized operations resources including Urban Search and Rescue (US&R), Aircraft Rescue Fire Fighting (ARFF), and a Hazardous Incident Team (HIT). The Department deploys resources from 34 fire stations, with minimum daily staffing levels of 191 personnel operating on 34 Engine companies, 9 Truck companies, 3 Rescue medic units, and 6

<sup>1</sup> <https://sanjose.legistar.com/View.ashx?M=F&ID=11327296&GUID=60A9B9A7-97EE-4980-AAAF-851F13F7F16E>

<sup>2</sup> <https://sanjose.legistar.com/View.ashx?M=F&ID=11705140&GUID=83284FDA-A17A-4B52-864A-AD6B50816F94>

on-duty command officers (battalion chiefs). The Department's frontline personnel protects 208 square miles including 181 square miles within city limits and approximately 27 square miles of unincorporated areas of Santa Clara County by contract.

The Department's emergency incident call volume has increased by approximately 40.8% in the past ten years from 77,481 calls in Fiscal Year (FY) 2012-2013 to 109,139 calls in FY 2022-2023. Rising call volume has challenged the Department's ability to meet response time performance standards and to maintain balanced emergency response coverage throughout the City. To address these challenges, the Department has pursued several strategies as reported to the Committee in the Fire Department Emergency Response Times Performance Semi-Annual Report.

On June 7, 2016, the City Council received the City of San José – Fire Department Organization Review<sup>3</sup> which included Standards of Response Coverage (SOC) analysis. The following was included in the report findings:

We find the City's deployment system does not provide City Council-adopted and best-practice desired response times, especially outside of the urban core as fire station spacing increases in the suburban areas. Delivering response times to all neighborhoods at the adopted City goal will require additional resources.

Consistent with the above conclusion, the City Council has been proactive and taken budget actions to restore some response resources lost following the 2008 recession. The first action taken was advancing the Disaster Preparedness, Public Safety, and Infrastructure Bond measure to the November 6, 2018, ballot. Voters passed the \$650,000,000 general obligation bond measure (Measure T) which included "...construction of Fire Station 37 and the upgrade and/or rebuild of additional fire stations to improve emergency response times based on the Fire Chief's assessment of projects that are critically needed to improve emergency response..."

Additionally, at the June 18, 2019 City Council meeting, the Department's Measure T – *New Fire Station Placement Prioritization*<sup>4</sup> recommendations were accepted by the City Council, initiating the construction of three new fire stations and the replacement of two existing fire stations. Thus far, Measure T-completed fire station projects include Fire Station 37 at 2191 Lincoln Avenue, and the landside bay addition at Fire Station 20 constructed in cooperation with Mineta San José International Airport (SJC) and the Federal Aviation Administration (FAA).

The additional fire stations provided by Measure T and continued advancement of response time performance improvement strategies have, at least temporarily, resulted in improved response time performance and resource availability – however, continued increases in emergency call volume continue to challenge Department resources in meeting response time targets.

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<sup>3</sup> [https://sanjose.granicus.com/MetaViewer.php?view\\_id=&event\\_id=2139&meta\\_id=576578](https://sanjose.granicus.com/MetaViewer.php?view_id=&event_id=2139&meta_id=576578)

<sup>4</sup> <https://sanjose.legistar.com/View.ashx?M=F&ID=7296426&GUID=8097B35E-F3AA-441B-A951-9B6135862F50>

## ANALYSIS

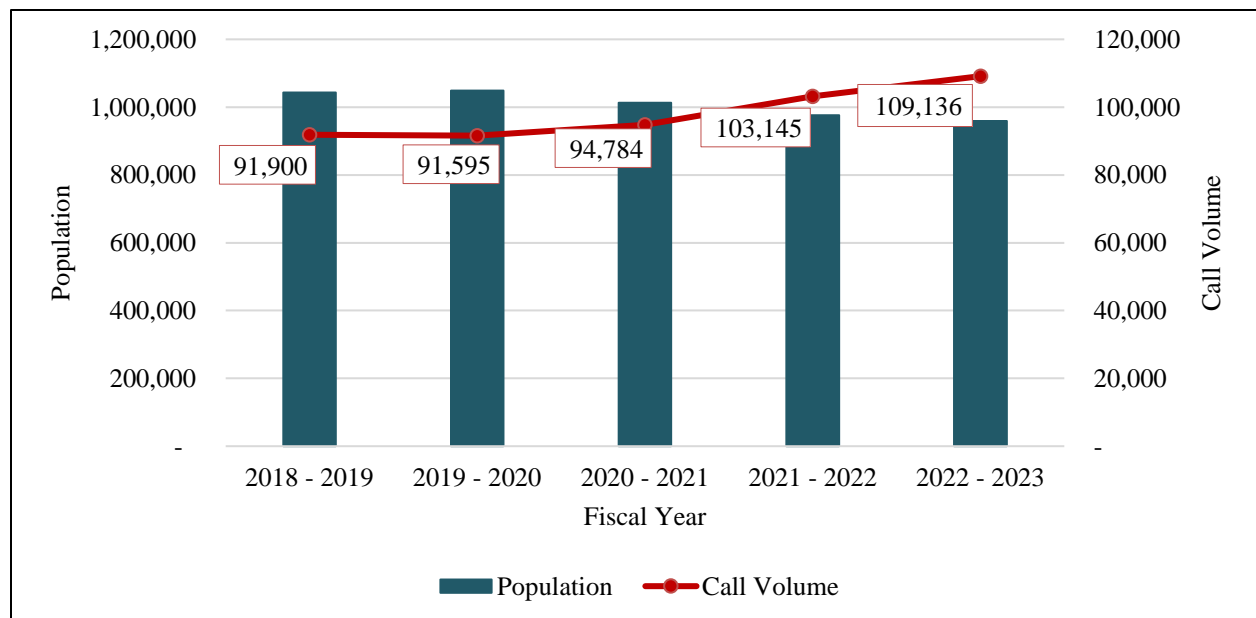
### Fire Department Emergency Call Volume

In FY 2018-2019, the Department's call volume was 91,900 compared to 109,136 in FY 2022-2023, resulting in an increase of 18.7% in demand for emergency response. As depicted in Chart 1 below, the City's population decreased by over 8% in that same 5-year period from 1,043,058 in FY 2018-2019 to 959,256 in FY 2022-2023.

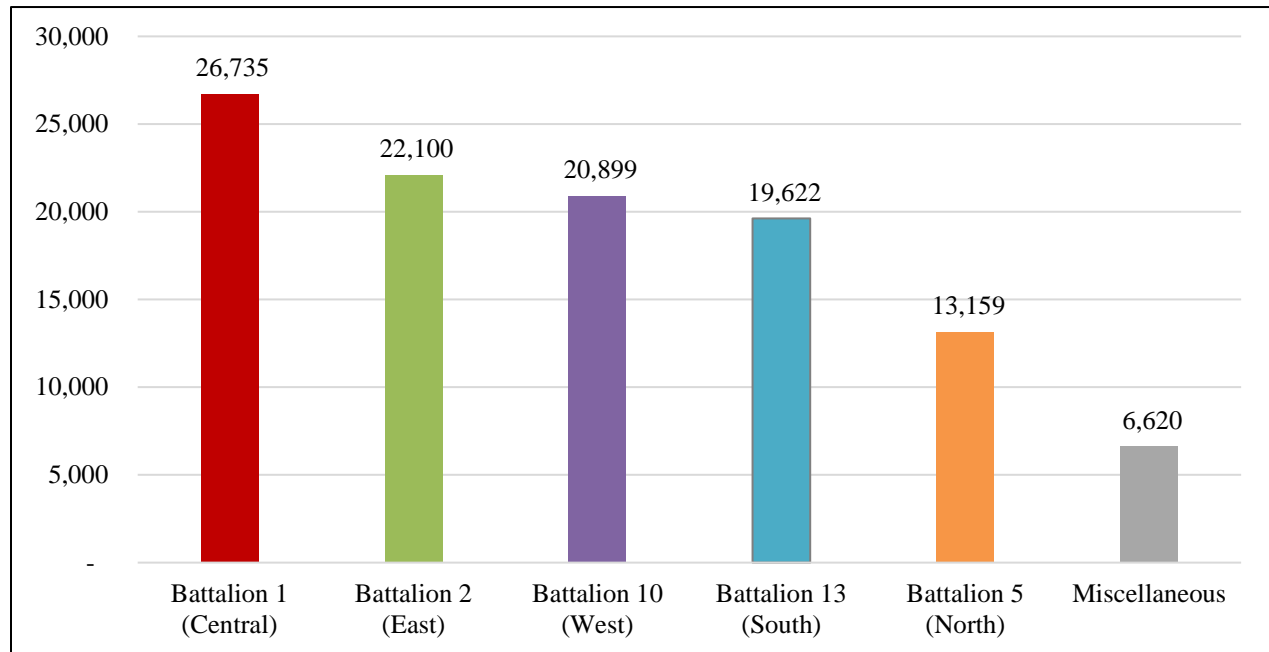
#### *Population Impacts*

Prior to 2018, there has been a clear correlation between rising population and emergency call volume. However, since 2021, call volume has risen significantly despite a drop in population.

Chart 1: 5-Year Call Volume versus City Population  
(Fiscal Year 2018-2019 through Fiscal Year 2022-2023)

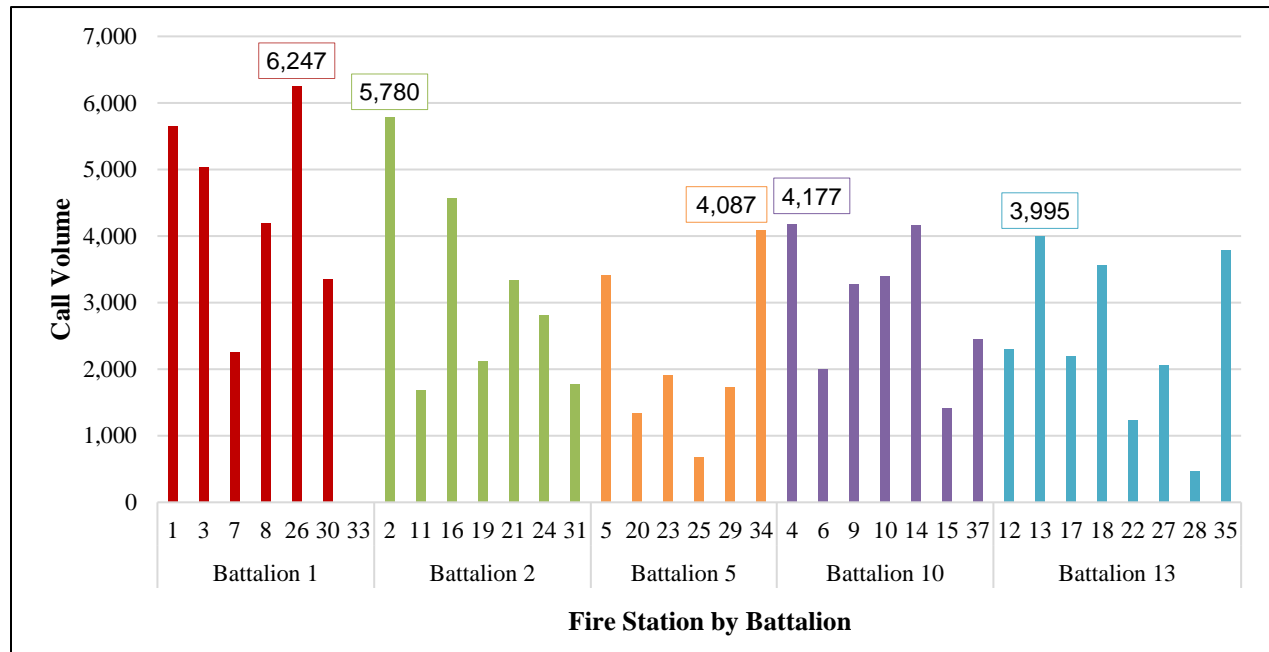


Generally, call volume is at its highest in the core of the City and lowest at its perimeter. As indicated in Chart 2 below, Battalion 1, which is centrally located in San José, had 26,735 incidents in FY 2022-2023. At peak periods, resources from other battalions are drawn into the core of the City as Battalion 1 resources are drawn down.

Chart 2: Call Volume by Battalion<sup>5</sup>

Fire stations are located throughout San José to provide emergency response coverage, however, population densities and service demands can vary for each station's response area, as shown in Chart 3 on the following page with a notation on fire stations experiencing the highest call volume within each Battalion's sphere of influence. It is important to note that call volume numbers reflect single emergency incidents and not the total number of resources deployed. A single incident may require a single resource response such as a Rescue Medic or Engine Company or can have several resource responses. As such, the incident response numbers provided in this report only partially represent the workloads for each fire station. Battalion 1 fire stations, which includes Fire Station 26, experience the highest call volume annually. Using the proceeds from Measure T, the Department fully operationalized Fire Station 37 to bolster fire protection coverage and improve response time performance within West San José. Additionally, Measure T funding will enable the future construction and positioning of Fire Stations 32 and 36 which is intended to strengthen central response capabilities and improve call volume distribution.

<sup>5</sup> Miscellaneous category captures calls identified within the Computer Aided Dispatch (CAD) system for Mutual and Auto Aid calls received by the City of San José not directly associated with a particular Battalion.

**Chart 3: Call Volume by Fire Station Response Area and Battalion**

*Note: Fire Station 33, closed by budget action in Fiscal Year 2010-2011 remains out of service – however, the response area remains in the Computer Aided Dispatch (CAD) system. Closest appropriate resources are dispatched to incidents in Station 33's response area*

High call volume centralized in the core of San José negatively impacts the Department's response time performance because of reduced first-due resource availability, resulting in extended travel time for resources traveling from more distant fire stations. As shown in Figure 1, the heatmap reflects call volume intensity ranging from lowest (blue) to highest (red). Current station response area call volumes result in reduced resource availability and compromise response time performance. Figure 2 reflects late response (travel times greater than 4 minutes) intensity ranging from the lowest (green) to the highest number of late responses (orange) depicting how resource drawdowns impact response time performance.

Figure 1: Call Volume Heat Map Fiscal Year 2022-2023

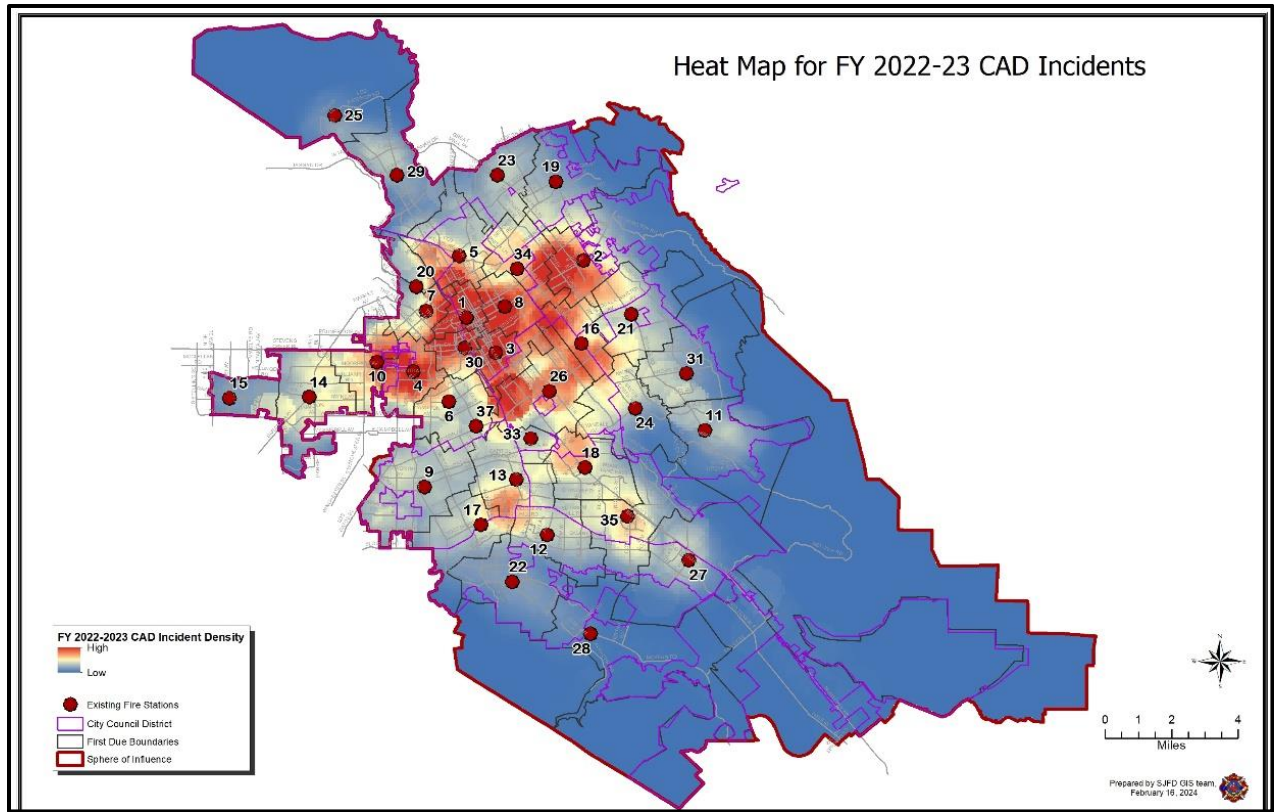
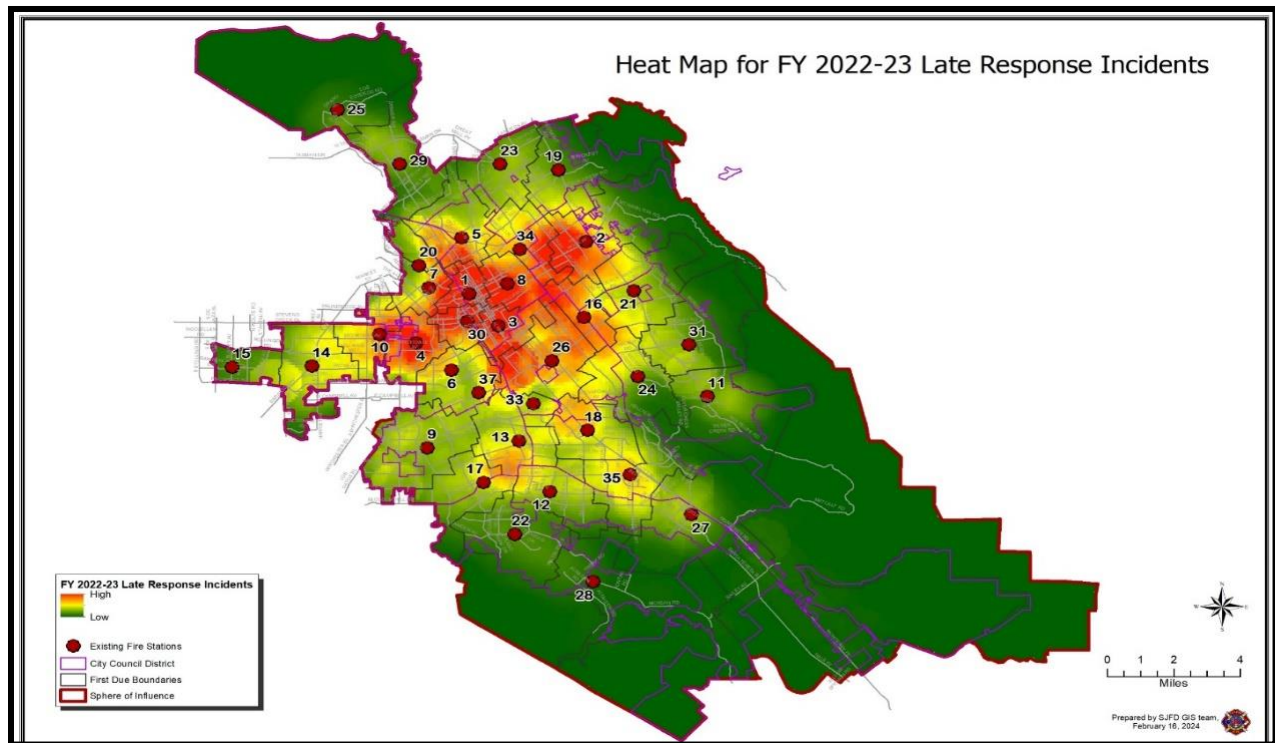


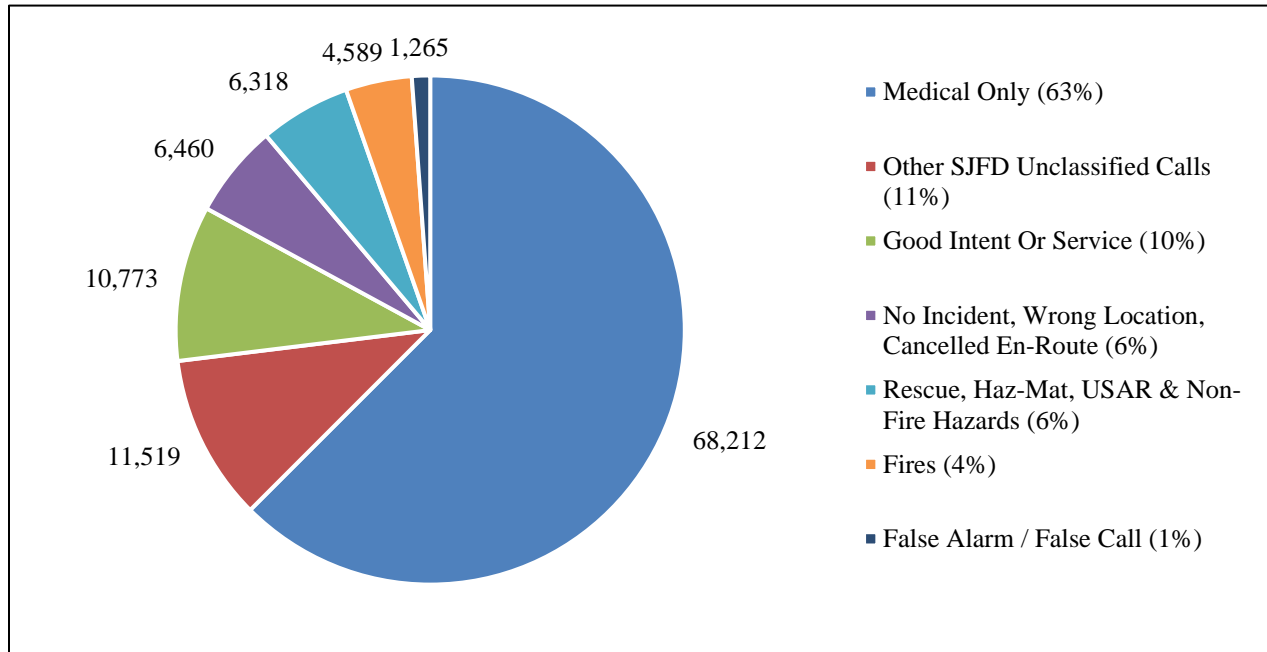
Figure 2: Late Response Heat Map Fiscal Year 2022-2023



### *Call Type Distribution*

Chart 4 provides the call type distribution of the 109,136 incidents in FY 2022-2023. Each call type was within 1% to 2% from the prior year's distribution. The Department experienced no significant marked increase in medical call volume percentage, and there was no clearly discernable change in call type distribution.

Chart 4: Call Type Distribution



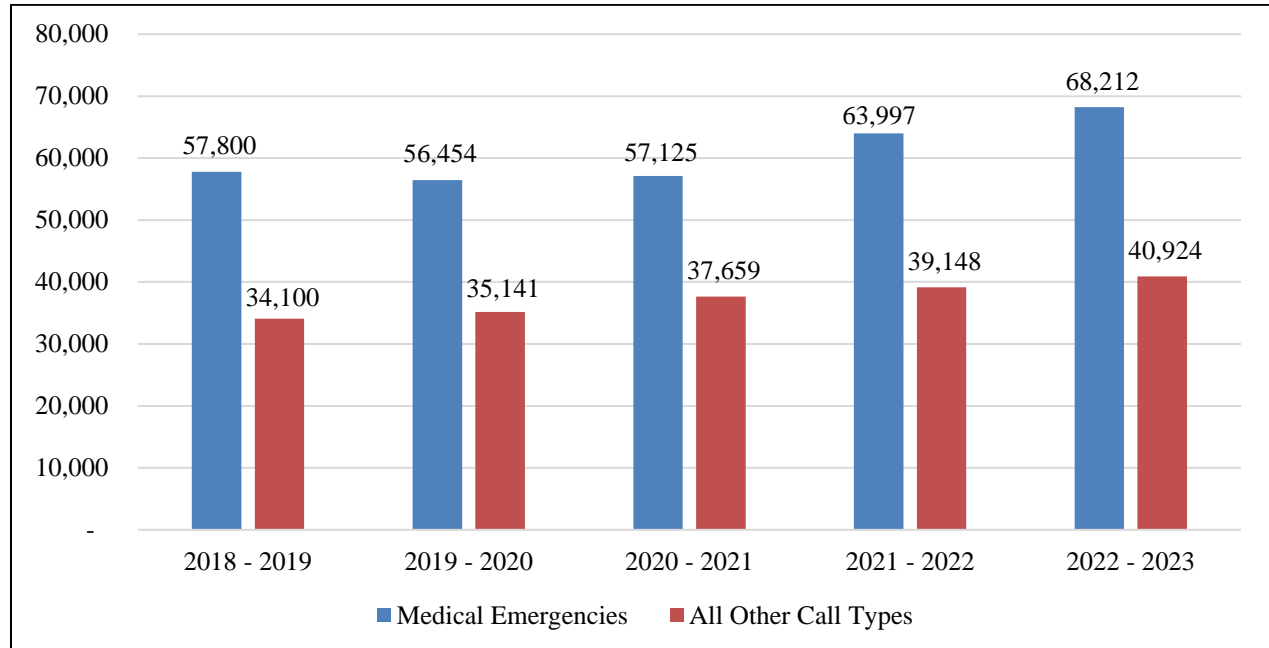
### *EMS Call Volume*

In FYs 2021-2022 and 2022-2023, Emergency medical services (EMS) call volume increased disproportionately against other call types (fire, rescue, hazardous materials emergencies, non-fire hazards, service requests and good intent, false alarm/false call, wrong location, canceled en route, and other) compared to the previous years.

As depicted in Chart 5 below, EMS call volume remained relatively static from FY 2018-2019 to FY 2020-2021; however, there was an increase of 10.5% in FY 2021-2022 from the previous year and an increase of 6.5% in FY 2022-2023 from FY 2021-2022. The Department is seeking to identify drivers of the increased EMS activity for these time periods. Total responses for all other call types increased by over 20% from 34,100 calls to 40,924 calls from FY 2019-2018 to FY 2022-2023.



Chart 5: EMS Call Volume and All Other Call Types  
(Fiscal Year 2018-2019 through Fiscal Year 2022-2023)

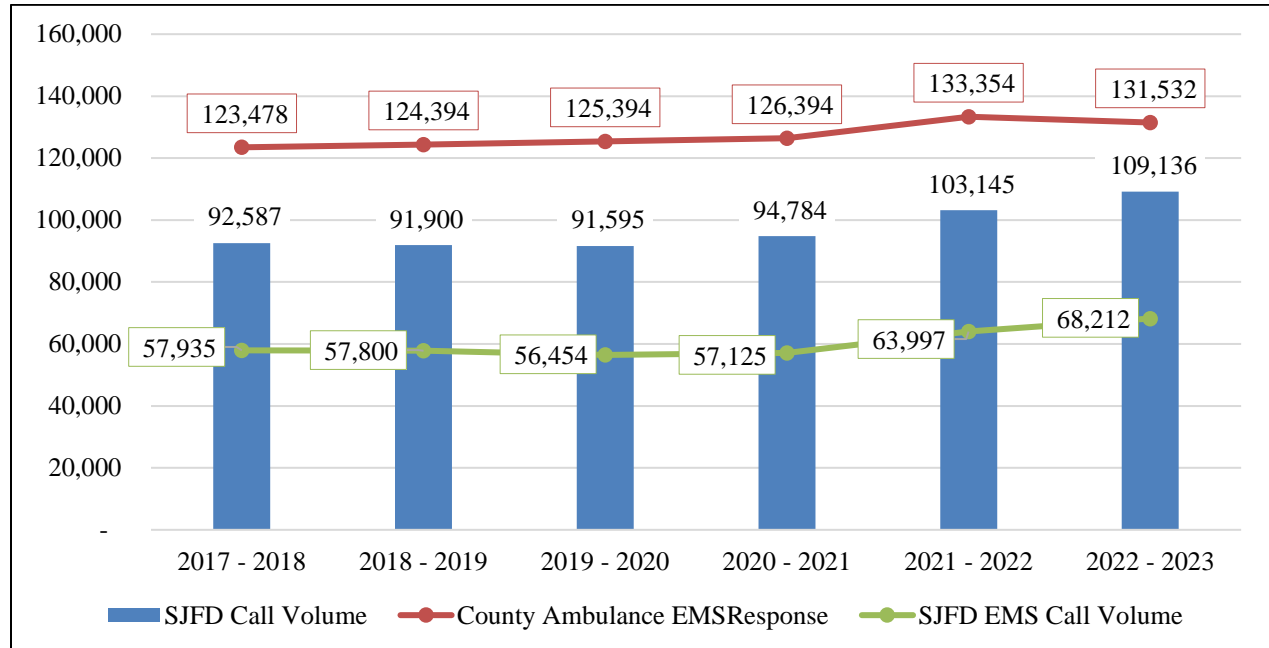


Call volumes are increasing countywide, however, the activity observed in the City's EMS call volume has outpaced Santa Clara County's Emergency Medical Services (County EMS) Ambulance responses on a countywide scale. The Santa Clara County Emergency Medical Services: County Service Area Response Time Performance Report for 2021<sup>6</sup> (page 135) provides 9-1-1 ambulance call volume history from calendar year 2012 to 2022.

As depicted below in Chart 6, County EMS 9-1-1 Ambulance responses increased by 6.5% from 123,478 calls in 2018 to 131,532 calls in 2023. Within that same time interval, total responses for the City had increased by over 26%, from 86,475 calls to 109,136 calls, and City EMS call volume increased by 17.7% from 57,935 to 68,212 calls.

<sup>6</sup> [https://emsagency.sccgov.org/sites/g/files/exjcpb266/files/general/EMCC\\_Agenda\\_November\\_Packet.pdf](https://emsagency.sccgov.org/sites/g/files/exjcpb266/files/general/EMCC_Agenda_November_Packet.pdf)

Chart 6: City Call Volume and Countywide Ambulance Call Volume  
Fiscal Year 2017-2018 through Fiscal Year 2022-2023



### *Aging Population*

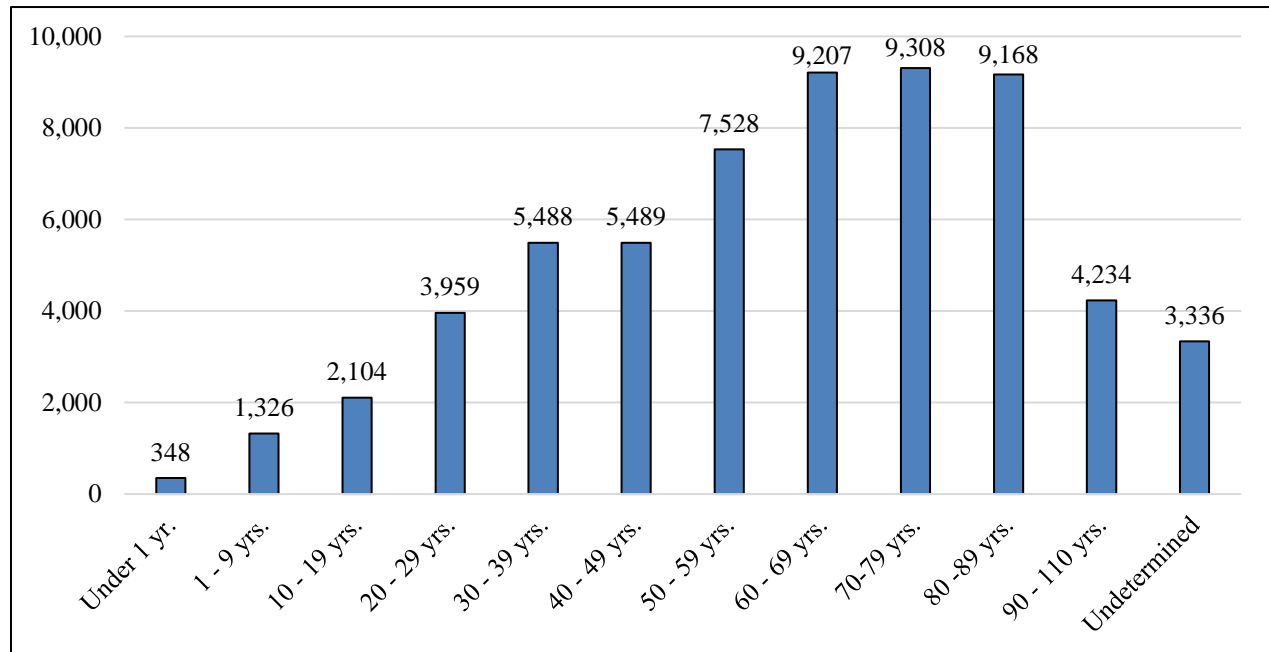
According to the California State Plan on Aging issued in 2021<sup>7</sup>, the number of Santa Clara County residents above the age of 65 years will increase by 99.3%, from 277,700 in 2010 to 553,409 in 2030, and residents aged 85 years and older are estimated to increase by 84.6%, from 28,039 in 2010 to 51,772 in 2030. The California State Plan on Aging made the following statement regarding health care demands of persons aged 85 and over:

The current size of the population age 85 and over, and the projected increase in this age group, is notable. Those 85 and older have a significantly higher rate of severe chronic health conditions and functional limitations that result in the need for more health and supportive services. The rapid growth of this age group has many implications for individuals, families, communities, and government.

In FY 2022-2023, the available patient age data from the Department's Medical Priority Dispatch System (MPDS) indicated that 55% of patients were age 60 years and over and 67% of patients were age 50 years and over. Chart 7 below provides a distribution of emergency medical responses across various patient age groups for FY 2022-2023.

<sup>7</sup> <https://aging.ca.gov/download.ashx?IE0rcNUV0zbUy1iwYmWKng%3d%3d>

Chart 7: EMS Patient Age Distribution



### *Medical Priority Dispatch System*

The Department utilizes the Medical Priority Dispatch System (MPDS) and Fire Priority Dispatch System (FPDS) to triage incoming 9-1-1 calls to dispatch the best appropriate resources. The MPDS is a unified system used by many dispatch centers to dispatch appropriate help to medical emergencies. MPDS starts with the dispatcher asking the caller questions which then allows the dispatchers to categorize the call and set a priority level ranging from minor to life-threatening, depending on the severity of the patient's condition. The line of questioning also guides the dispatcher to provide appropriate medical instructions to the caller before the Department's emergency resources arrive on scene. The MPDS determinants include Omega, Alpha, Bravo, Charlie, Delta, and Echo classifications. Fire resources respond to all determinant levels except for Omega-related calls, which are the lowest acuity level.

### *High EMS Demand Facilities*

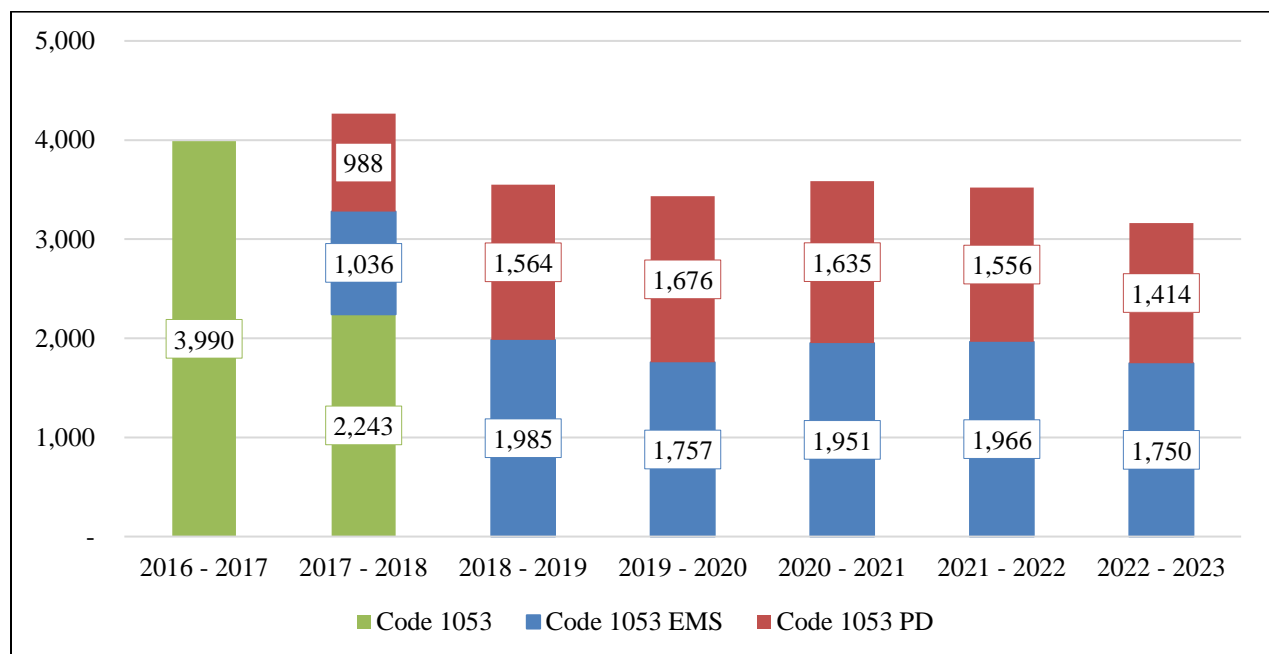
To reduce EMS calls to high-demand facilities including the Santa Clara County Jail, Valley Medical Center, and others such as managed care, assisted living, and shelters, the Department has been working with the Santa Clara County Emergency Medical Services Agency (County EMSA). New procedures have been adopted at the County Jail to reduce unnecessary 9-1-1 calls where non-emergency interfacility ambulance services are more appropriate. Additionally, the Department continues to engage with County EMSA to evaluate response data and identify appropriate and sustainable service delivery options for other high EMS-demand facilities.

*Dispatch Procedures*

The Department received feedback from frontline personnel regarding the frequency of being dispatched to calls that only require law enforcement to respond. The Department engaged with the Police Department to better understand the issue and to identify an amenable resolution. Beginning January 1, 2018, the Police Department modified their dispatch policy which resulted in a reduction of over 1,500 Fire Department incidents. This change eliminated a “combined event” type code (1053) and replaced it with two other codes that specified the need for police response only or EMS response needed.

As seen in Chart 8 below, there were 3,990 dual responses (both Police and Fire) under the 1053 type code in FY 2016-2017. The partial year change in FY 2017-2018, resulted in 988 calls where the Department did not need to respond. In FY 2021-2022, the Fire Department response was eliminated from 1,556 Police Department incidents and in FY 2022-2023 the Department response was eliminated from 1,414 Police Department incidents.

Chart 8: Fire Department Response to Assist Police Department  
FY 2016-2017 through FY 2022-2023

*Bay Area Rapid Transit*

Based upon conversations with other fire agencies with experience serving areas with BART services, the Department anticipated an increase in call activity proximal to BART stations, particularly located at end-of-line stations. With the opening of the Berryessa/North San José BART Station in 2020, the Department is experiencing frequent calls for service at that location. The Department will evaluate response patterns and seek to identify mitigations. The proposed

BART service extension to downtown will further impact calls for service along that new corridor.

### *Local Mutual Aid*

Call volume is increasing throughout the county and particularly in areas south of San José, including Morgan Hill and Gilroy. San José has historically provided mutual aid support within the county and beyond. Locally, this is achieved through automatic aid and mutual aid agreements. Automatic aid is established to assign the closest station to areas regardless of jurisdictional boundaries, within specified limits. Automatic aid is designed to be reciprocal and has minimal, or no impact, on participating agency call volume. Comparatively, in-county mutual aid is provided on an as-needed basis. As call volume increases and response time performance continues to be challenged, mutual aid becomes increasingly challenging to support. In past years, as resources were released to provide mutual aid support for other agencies, other resources would be moved up to provide coverage to the vacated areas. Currently, as resource availability decreases due to higher call volume, it is increasingly challenging to provide backfill resources and maintain response time performance levels while providing mutual aid support. The Department will continue to monitor these types of impacts and utilize mutual aid during significant incidents throughout San José.

### *Public Education and Safety*

The 2022-2023 Adopted Operating Budget included the addition of a Public Information Representative to support the Department's Public Information Manager and a Video/Multimedia Producer. Outreach and education efforts targeted diverse community members as best as possible to provide relevant and timely safety information with a goal to reduce fires, illness, and injuries. In FY 2022-2023, the Department made progress in improving its reach on disseminating critical public outreach and education messaging offered to the public in multiple languages and messaging platforms. The Department supported City and County-wide public safety messaging related to holiday concerns, severe weather preparedness, illegal fireworks abatement, and Vision Zero traffic fatality mitigation efforts, among other topics. The Department added to its popular "Junior Firefighter Safety" series with videos on the importance of carbon monoxide detectors in both Spanish and Vietnamese. The Department also created public safety and education videos on topics such as swimming pool safety and proper use of a fire extinguisher, the latter of which has accrued more than 60,000 views on YouTube to date. SJFD also began to ease its safety policies regarding COVID-19, allowing firefighters to reconnect face-to-face with the community through public appearances and station tours. Overall, the investments made towards public education to reduce the number and severity of fires, illness, and injury align closely with the Department's efforts to reduce calls for emergency services when such incidents can be prevented.

## **Fire Department Emergency Response Times and Metrics**

### *City and County EMS Response Times*

Department response times are measured against two performance measures: the City of San José's (City) adopted performance measures and the performance measures in the Santa Clara County (County) Emergency Medical Services (EMS) agreement.

*City of San José:* In order to effectively respond to emergency calls for service (both fires and medical services) the City revised its response time performance standard in 2000 to an arrival time within eight minutes, 80 percent of the time for Priority 1 incidents; and an arrival time within 13 minutes, 80 percent of the time for Priority 2 incidents. Priority 1 incidents are emergency incidents that are determined to require immediate response with response vehicles using lights and sirens. Priority 2 incidents are emergency incidents that are determined to require immediate response without the use of lights and sirens.

Under the City Standard, the time clock begins upon receipt of the 9-1-1 call and stops upon arrival at the incident address.

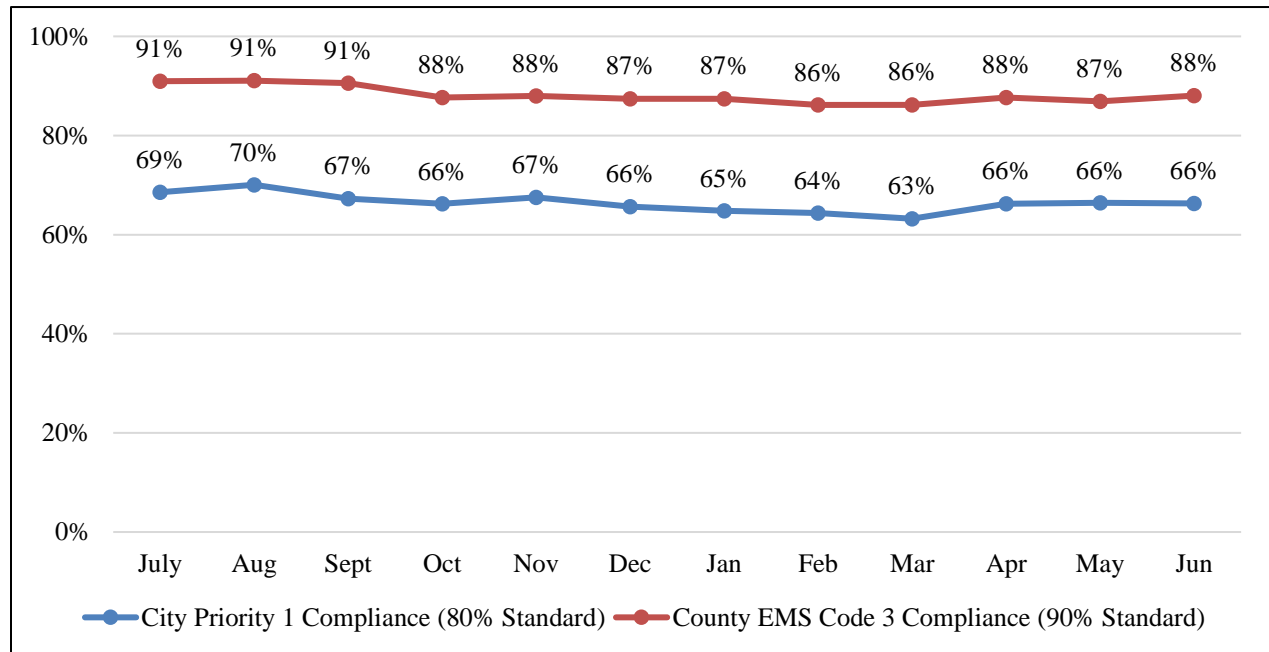
*Santa Clara County EMS Contract Provision:* The 9-1-1 Emergency Medical Services Provider Agreement between the City and the County establishes response time requirements for two emergency vehicle response modes: with red lights and sirens or without red lights and sirens. All 9-1-1 calls are triaged by Public Safety Radio Dispatchers utilizing the Medical Priority Dispatch System (MPDS). Resulting determinates (Omega, Alpha, Bravo, Charlie, Delta, Echo) inform field resources of the appropriate response mode. Lights and sirens responses require arrival on scene within eight minutes, 90 percent of the time, in all EMS calls in urban areas (commonly referred to as the County EMS Code 3 Standard). Lower-level EMS incidents require arrival on scene within 13 minutes, 90 percent of the time, in urban areas.

Under the County EMS response time standard, the time clock begins upon dispatch of response resources and stops upon arrival at the incident address.

The agreement with the County includes response time performance "exceptions" for responses outside of the County's defined Exclusive Operating Area (EOA) and designated "hard to serve areas." The County may also waive response time performance requirements when the response network is under unusual pressure, such as during periods of time when greater alarms are occurring or when the Department is providing mutual aid to other jurisdictions. During such exception periods, Department response times not meeting the County EMS Code 3 Standard are excluded from the County EMS Code 3 response time calculations, resulting in a readjusted compliance rate.

### *Response Time (City and County EMS):*

Chart 9 below represents the Department's monthly response time performance for FY 2022-2023:

Chart 9: Fiscal Year 2022-2023 Response Time Performance<sup>8</sup>

During the FY 2022-2023, the Department response times averaged:

- City Standard: 66.38 percent, or 13.62 basis points below the City Standard of 8 minutes, 80 percent of the time for Priority 1 calls.
- County Standard: 88.17 percent, or 1.83 basis points below the County EMS Code 3 Standard of 8 minutes, 90 percent of the time.

The Department response time averages for FY 2022-2023 were significantly lower compared to FYs 2020-2021 and 2021-2022, in which Department response time averages were high due to a peak in COVID-19 hospitalizations that negatively impacted ambulance response times starting in January 2021 through May 2022. During this time, the average response times for this 2-year period were:

- City Standard: 71.67 percent, or 8.33 basis points below the City Standard of 8 minutes, 80 percent of the time for Priority 1 calls.
- County Standard: 91.02 percent, or 1.02 basis points above the County EMS Code 3 Standard of 8 minutes, 90 percent of the time.<sup>2</sup>

<sup>8</sup> Compliance standard reflects performance reported to County EMS adjusted for allowable exemptions.

Recently on March 21, 2024<sup>9</sup>, the Department presented its findings on EMS activity and delivery to the Committee regarding impacts to response time and operations. In this report, the Department identified ambulance unavailability resulting in delayed transport of critical patients, extended on-scene times for first responder agencies, and extended response times to subsequent emergencies. To improve ambulance availability, the Department has increased transport frequency by its three rescue medic units. However, when these rescue medics are tasked with transporting patients, a correlation occurs with increased late responses to EMS incidents as the units are committed during transport making them unavailable to respond to subsequent emergencies. Additionally, rescue medic transports often occur when there are no other ambulances available, straining fire agency resource availability throughout the County.

### *Response Time Segments*

The Department's response times are broken down into three segments: alarm processing time, turnout time, and travel time. The Priority 1 standard is 8 minutes, 80% of the time. The 8-minute target includes 2 minutes for alarm processing, 2 minutes for turnout, and 4 minutes for travel time. The Department meets alarm processing and turnout time standards more than 80% of the time, however, the 4-minute travel time target is met less than 50% of the time.

Alarm processing begins when a 9-1-1 call is received into the Fire Communications Center (FCC) and assigned to a call taker. Most calls are transferred to the FCC from Public Safety Answering Points (PSAPs) this includes San José Police, Santa Clara County Communications, California Highway Patrol, and others. In FY 2019-2020, the Department achieved four improvements that have had a positive impact on alarm processing time including an improved Computer Aided Dispatch (CAD) system to CAD link between the City and County Communications Centers, diversion of non-emergency calls from the FCC to San José 3-1-1, "off-hook" answering technology, and new fire station alerting systems. The CAD-to-CAD link improvement results in a reduction of tens of thousands of telephone calls between the Centers annually, while increasing dispatcher availability. Similarly, the diversion of non-emergency calls to San José 3-1-1 also increases 9-1-1 dispatcher availability. Off-hook answering automatically opens the line between the caller and the available 9-1-1 dispatcher, eliminating ring time and dispatcher reaction time. The new fire station alerting system utilizes a computerized voice and can reduce alarm processing time by simultaneously dispatching calls. Prior to this improvement implementation, dispatches had to occur in sequence to wait for dispatcher and radio channel availability.

In FY 2021-2022, the Department implemented use of the *RapidDeploy RadiusPlus* platform provided by the California Governor's Office of Emergency Services (CalOES) to integrate 9-1-1 caller cellular location information and external data sources. Text-to-9-1-1 service was also transitioned to the *RapidDeploy* platform in accordance with a CalOES contract award. These efforts improve efficiency during alarm processing by combining data previously accessed via disparate systems into a single platform.

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<sup>9</sup> <https://sanjose.legistar.com/View.ashx?M=F&ID=12771238&GUID=BAE4CFB4-F09C-4F2B-AC58-D23AA720B0E7>



Turnout time is measured from the point that a unit is notified of an incident to the time the unit-initiated response (travel). Turnout time entails the following: personnel stopping current activities, walking to the emergency vehicle, donning appropriate personal protective equipment based upon call type, mounting apparatus, and securing seat belts. Response time performance data is shared with companies during each 48-hour work tour, and shift-specific turnout time performance is shared twice per month with field supervisors.

As previously noted, travel time is the Department's principal challenge to on-time response performance. Distance between fire stations, unit out-of-service time, traffic congestion, and high call volume each play a role in challenging travel time performance. As an ongoing effort to close the distance between fire stations and to increase resourcing, the City is continuing to advance new fire station building projects enabled by the 2018 Disaster Preparedness, Public Safety, and Infrastructure Bond Measure (Measure T). In March 2022, the newly relocated Fire Station 20 expanded the Fire Department's coverage from the San José Mineta Airport Fire Station 20 by deploying an advanced life support unit to better serve the surrounding residential and business community. Additionally, in May 2022, the Department completed construction and fully operationalized Fire Station 37 to fortify fire protection coverage and improve response time performance. The Department has worked to minimize unit out-of-service time by utilizing overtime to conduct training and other administrative details during scheduled off-duty time and/or to backfill resources that are out of service for training.

Traffic congestion challenges were improved in 2018 with the implementation of Emergency Vehicle Pre-emption (EVP). The implementation of EVP resulted in 948 intersection traffic signal lights pre-empting to green when emergency vehicles are passing through. The result has been improved response time performance and safer roadways for responders and civilians.

### *Emergency Incident Volume*

In FY 2022-2023, the Department responded to 109,136 incidents, which is a 5.8% increase from the reported 103,145 incidents in FY 2021-2022. Over the last 5 years, the Department experienced an 18.7% increase from the 91,901 incidents reported in FY 2018-2019, as indicated in Table 1 below. In May 2022, the Department opened the new Fire Station 37 and is now operating at the same number of fire stations as FY 2009-2010.

Table 1: Annual Incident Volume

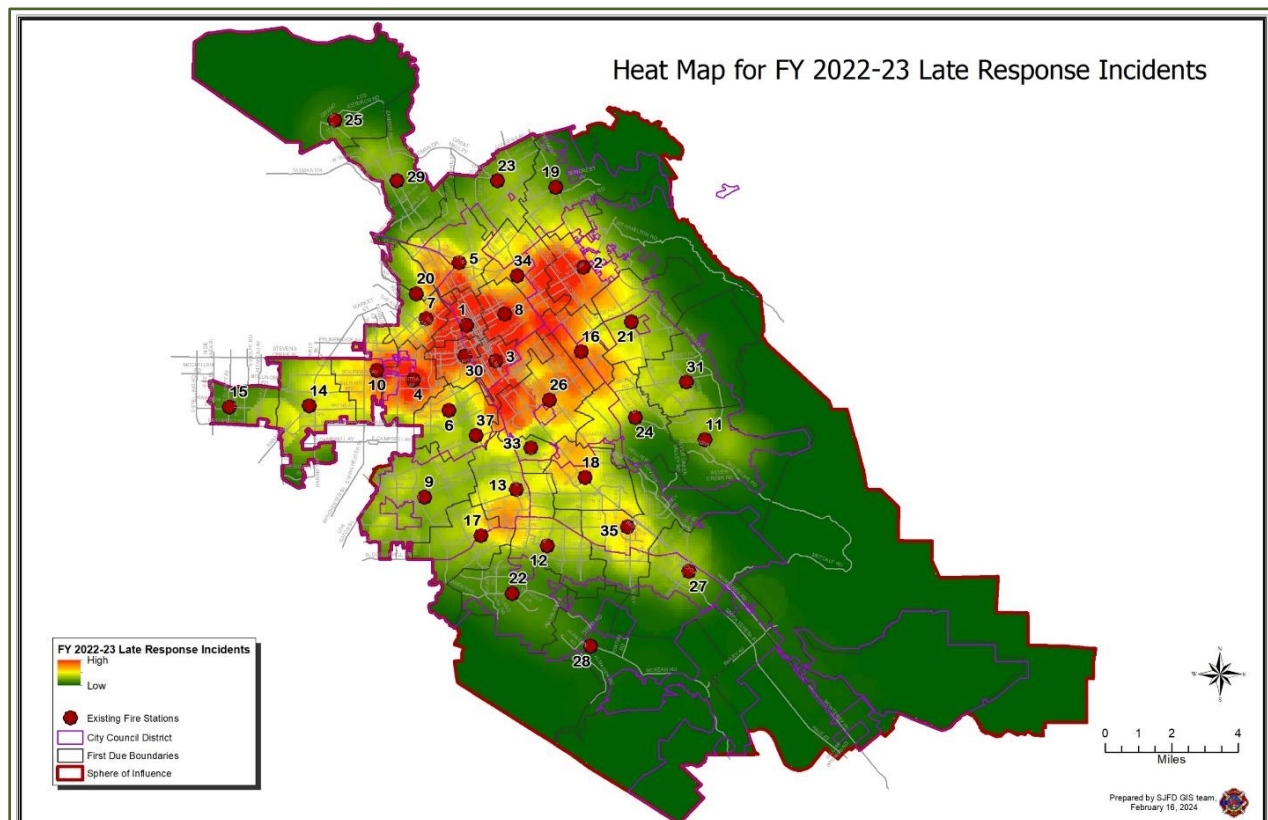
	<b>2018-2019</b>	<b>2019-2020</b>	<b>2020-2021</b>	<b>2021-2022</b>	<b>2022-2023</b>
<b><i>Total Incidents</i></b>	91,901	91,595	94,784	103,145	109,136

Increased call volume results in more instances where the first due response resource is unavailable to respond. Second- and third-due resources require additional travel time to arrive on scene, and thus response times are longer. Peak call volume periods and large-scale incidents

requiring multiple unit response stretch the Department's resource network thinly and result in reduced response time performance.

Chart 3 shows responses on a Heat Map where travel time was greater than 4 minutes. Red areas indicate the greatest number of late responses, and the green areas indicate the lowest number of late responses. Although fire stations are closer together in the core of the city, the high number of incidents, results in an increased number of late responses as previously explained. This data gathered has aided in the placement and prioritization of new fire stations.

Figure 3: Travel Time Performance (Greater than 4 Minutes)



Leveraging funding from the Measure T bond will enable the construction of the new Fire Stations 32 and 36, as well as the relocation of Fire Stations 8 and 23. Fire Station 32 will be built in East San Jose, near McLaughlin Avenue and Story Road, while Fire Station 36 will be built near McLaughlin Avenue and Capitol Expressway. The site location for Fire Station 8 was secured in February 2021, while the site for Fire Station 23 is currently under evaluation. Both relocated fire stations are anticipated to improve the Department's emergency response performance. Measure T also provided funding for the improvement of the 9-1-1 Call Center Upgrade that houses the Police and Fire emergency communications, including the expansion to incorporate the Office of Emergency Management. Improvements to the physical space at the

9-1-1 Call Center are expected to result in expanded capacity and improved integration of modern technologies to meet volume demands and support emerging 9-1-1 features.

The Department has taken steps to moderate call volume through refinements in 9-1-1 call taker protocols and through targeted mitigation of high call volume locations where Department resources are not the ideal or needed resource. An effective 9-1-1 call taker protocol includes a division of “person down” calls distinguishing between a law enforcement-only response or a law enforcement and fire response to provide emergency medical services care. This action eliminated several hundred unnecessary Department responses per year. Mitigating targeted high call volume addresses, such as the Santa Clara County Main Jail Complex has involved collaboration with facilities to provide education, identify better options, and improve workflows to eliminate unnecessary and/or accidental triggering of a 9-1-1 system response. The Department will continue to pursue these opportunities as they arise.

#### *Status of the Response Time Work Plan*

The Department continues to advance multiple response time improvement strategies included in the Response Time Work Plan. Table 2 provides all the action items still “in process” and Table 3 provides all the action items that have been completed for the Response Time Work Plan.

Table 2: Response Time Work Plan (In Process)

#	Project	Comments
2	Data Collection  <i>Status: In Process Timeline: Ongoing Segment: Overall</i>	This effort seeks to increase the storage and scope of electronic data collection to enhance analytical capabilities to improve response times. Data informing on call processing, turnout time, and travel time performance is in production. Additional quantitative and qualitative data is being identified for incorporation into the data warehouse and business intelligence tool.
3	Business Intelligence Tool  <i>Status: In Process Timeline: Ongoing Segment: Overall</i>	These tools provide reports and user interfaces (“dashboards”) that direct organizational focus on performance driven by actionable data. These tools were implemented in December 2018. The Department is currently benefitting from generated initial products and continues to add and enhance reports.

#	Project	Comments
8	<p>Fire Communications Staffing</p> <p><i>Status: In Process</i>  <i>Timeline: July 2025</i>  <i>Segment: Call Processing Time</i></p>	<p>At the end of FY 2022-2023, there were 11 vacancies within the dispatcher classification series in Fire Communications and 14 across all classifications. Recruitment efforts and training academies are ongoing. The 2019-2020 Adopted Operating Budget added one-time funding to conduct a staffing study. Following review by the Fire Department and City Manager's Office, the resulting final report was distributed in April 2023. The Department has prioritized the most critical needs identified in the report and worked with the Human Resources Department to establish the Public Safety Communication Specialist classification in support of adding dedicated call-taking capacity. Allocation of positions within the classification will be subject to the budget process. An Analyst position was also added to the 2019-2020 Adopted Operating Budget. The Analyst has added valuable capacity for recruitment activities and is finalizing development of a Formal Recruitment Plan which is expected by June 2024.</p>
9	<p>Response Area Mapping/ESZ Refinement</p> <p><i>Status: In Process</i>  <i>Timeline: Ongoing</i>  <i>Segment: Call Processing Time</i></p>	<p>Ongoing refinement of Emergency Service Zone (ESZ) assignments to ensure appropriate resources (station/apparatus) are dispatched. Refinements to align ESZ coverage with jurisdictional boundaries have occurred. Preparation for the relocation of Fire Station 8 is underway. Preparation for the addition of Fire Stations 32 and 36 and the relocation of Fire Station 23 will occur as those projects draw near.</p>
10	<p>Base Map Update</p> <p><i>Status: In Process</i>  <i>Timeline: Ongoing</i>  <i>Segment: Call Processing Time</i></p>	<p>Provide periodic updates to base map data for integration ("map roll") into CAD. The Department is evaluating opportunities for a countywide base map, which could support multiple strategies. Added County-wide emergency evacuation map in collaboration with neighboring agencies.</p>

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#	Project	Comments
14	<p>CAD-to-CAD Dispatch Link(s)</p> <p><i>Status: In Process</i>  <i>Timeline: TBD</i>  <i>Segment: Call Processing and Travel Time</i></p>	<p>Connect the Fire Department CAD system with other County agencies to share unit and event information. This includes redesign of the CAD-to-CAD interface with Santa Clara County Communications to include unit data. Unit data is not exchanged via the current interface. Funding for a redesigned interface to coincide with Santa Clara County Communications' transition to the Hexagon CAD system was approved in the 2021-2022 Annual Report and coordination with Santa Clara County and Hexagon continues. Anticipated timeline for that interface is Spring 2024; a timeline for efforts with other agencies remains TBD. The Department will continue to monitor the status of the Silicon Valley Regional Interoperability Authority's Silicon Valley Interoperability Project Data Exchange (SVRIA-DX) and is evaluating the Cal OES Data Information Sharing project.</p>
15	<p>Border Drops</p> <p><i>Status: On Hold</i>  <i>Timeline: TBD</i>  <i>Segment: Call Process and Travel Time</i></p>	<p>Enhance auto-aid agreements to create borderless response areas. This project is dependent on CAD-to-CAD links and agency agreements and may require countywide GIS coordination.</p>
17	<p>Resource Move-Ups</p> <p><i>Status: In Process</i>  <i>Timeline: Ongoing</i>  <i>Segment: Travel Time</i></p>	<p>Resource move-ups continue as a manual process at Fire Communications and by request from Battalion Chiefs. As the Department moves toward "closest unit" dispatch, automated resource deployment software solutions will be evaluated.</p>

#	Project	Comments
18	<p>Closest Unit Dispatch</p> <p><i>Status: In Process</i>  <i>Timeline: Spring 2025</i>  <i>Segment: Travel Time</i></p>	<p>This effort would dispatch resources based upon apparatus proximity to the incident rather than station location. The Department completed the installation of Cradlepoint network routers on apparatus to support cellular network redundancy leveraging FirstNet and Verizon to connect with the Hexagon CAD system. We are currently working with Hexagon on fine-tuning the accuracy of GPS location that can support “closest unit” dispatch.</p>
19	<p>Navigation Technology</p> <p><i>Status: In Process</i>  <i>Timeline: Ongoing</i>  <i>Segment: Call Processing and Travel Time</i></p>	<p>The Department continues to refine routing effectiveness on new CAD and mobile data computer (MDC) systems. iPads and updated hard-copy maps continue to provide interim improved routing capabilities. An updated map was deployed on MDCs in February 2022 along with an upgrade of the Hexagon Mobile for Public Safety Software. An updated map is planned for Spring 2024 to be deployed on MDCs.</p>
21	<p>Deployment Refinements</p> <p><i>Status: In Process</i>  <i>Timeline: Ongoing</i>  <i>Segment: Travel Time</i></p>	<p>The Department continues to pursue opportunities to address service gap areas identified through the Organizational Review process. This includes real-time move-ups, backfill for training, augmented staffing levels for high fire danger periods, mutual aid, and special events. In the second half of FY 2021-2022, Engine 37 was deployed out of newly constructed Fire Station 37 and Rescue Medic 20 was deployed out of the newly constructed Fire Station 20.</p>

#	Project	Comments
22	Expand Omega Protocol  <i>Status: In Process</i> <i>Timeline: TBD</i> <i>Segment: Overall</i>	The Department has pursued opportunities to reduce unnecessary responses as determined by Medical Priority Dispatch System (MPDS) triage (Omega determinant). Thus far, enabling State and County EMS policies have not materialized. As an alternative, the Department has engaged County EMS to resolve low-acuity EMS service requests at high-call volume facilities. Efforts will continue on this work plan item.

Table 3: Response Time Work Plan (Completed)

#	Project	Comments
1	Analyze/Validate Response Time Data/Determine Impact on Response Performance  <i>Status: Completed</i> <i>Segment: Overall</i>	The Department provided the San José Fire Department Response Time Performance Initial Analysis in April 2014 with third-party methodology review and validation by Athena Advanced Networks. This process is now ongoing and is the source of data cited in this report. The Department will monitor CAD upgrade impacts to ensure continuity of data reporting procedures.
4	Data Warehouse  <i>Status: Completed</i> <i>Timeline: Ongoing<sup>10</sup></i> <i>Segment: Overall</i>	This tool centralizes data from multiple sources and would be the data source for reporting and business intelligence tools. This item was implemented in December 2018.
5	Enable Intergraph iTracker (“Halo”)  <i>Status: Completed</i> <i>Segment: Turnout and Travel Time</i>	This feature records en-route and on-scene information utilizing the Automatic Vehicle Location (AVL) system. iTracker can provide greater data reliability than manual entry via MDC performed by response personnel. This item was completed in January 2018.

<sup>10</sup> Although the project is completed, the Department is continuously refining and adjusting to new developments as they occur.



#	Project	Comments
6	Implement Early Dispatch  <i>Status: Completed</i> <i>Segment: Call Processing Time</i>	In March 2014, the Department eliminated “station pre-alerts” and adopted “early dispatch” procedures for EMS responses to improve dispatch time. As a result, all EMS dispatches became Code-3 until completion of Emergency Medical Dispatch (EMD) triage. This procedure results in simultaneous dispatch of Rescue Medics, with the appropriate resource continued upon completion of triage. Emergency Fire Dispatch (EFD) procedures were also refined on August 1, 2016.
7	9-1-1 Phone System Upgrade  <i>Status: Completed</i> <i>Segment: Call Processing Time</i>	New system hardware installation was completed in June 2016 and system training (Power MIS) was completed in September 2016. Installation of system monitoring hardware in the control room was completed in March 2018.
11	EMS Quality Assurance Update  <i>Status: Completed</i> <i>Timeline: Ongoing<sup>11</sup></i> <i>Segment: Call Processing Time</i>	Training was completed in July 2016 and software and protocols were upgraded in August 1, 2016. This process recurs with software and protocol updates and upgrades.
12	Organizational Review  <i>Status: Completed</i> <i>Segment: Overall</i>	Report accepted, along with the Fire Department Strategic Business Plan in June 2016.
13	Turnout Time  <i>Status: Completed</i> <i>Segment: Turnout Time</i>	Performance data isolating turnout time performance is provided to field personnel bi-monthly. Daily turnout time performance reports have been deployed in the Business Intelligence Tools.
16	Traffic Signal Preemption (Emergency Vehicle Preemption, EVP)  <i>Status: Completed</i> <i>Segment: Travel Time</i>	This effort expands traffic signal preemption more broadly across the city. The Department collaborated with Police Department Communications, Information Technology Department, and Department of Transportation to leverage their systems to significantly expand signal preemption. The system was fully deployed in December 2018 with a total of 948 intersections.

<sup>11</sup> Although the project is completed, the Department is continuously refining and adjusting to new developments as they occur.



#	Project	Comments
20	Unit Availability  <i>Status: Completed</i> <i>Segment: Travel Time</i>	The Department has implemented various strategies to reduce unit out-of-service time including adjusted training scheduling and conducting administrative details on and off duty on an overtime basis. Backfill resources to cover staffing gaps created when companies are out-of-service for training, enabled by the 2016-2017 Adopted Operating Budget action.
23	Station Alerting System  <i>Status: Completed</i> <i>Segment: Call Processing and Turnout Time</i>	The 2016-2017 Adopted Operating Budget approved \$1.3 million to support the implementation of an upgraded station alerting system. The upgraded fire station alerting system automates some dispatching steps, resulting in reduced call processing times. In October 2017, Council approved a funding increase for a total of \$1.5 million. This project was completed in August 2020 and the Department is in monitoring and maintenance mode.
24	Response to County Jail and County Facilities  <i>Status: Completed</i> <i>Timeline: Ongoing Monitoring</i> <i>Segment: Travel Time</i>	In December 2014, Santa Clara County released a Limited Scope Management Audit of Emergency Medical Services Response Times which recommended that the County develop additional policies limiting when the County Jail and Valley Medical Center call 9-1-1 for assistance on medical emergencies based on the existence of trained medical personnel at those facilities. The County has initiated actions to reduce unnecessary 9-1-1 calls, and the Department continues to monitor County Jail facility call volume.

### **EVALUATION AND FOLLOW-UP**

The Department will return to the Committee in Spring 2025 with its next annual Fire Department Operations Report on call volumes and emergency response times performance metrics.

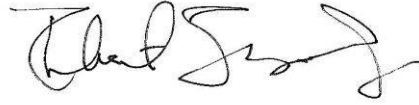
### **COORDINATION**

This memorandum has been coordinated with the City Attorney's Office.

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A handwritten signature in black ink, appearing to read "Robert Sapien, Jr.", with a stylized, cursive script.

ROBERT SAPIEN, JR.  
Fire Chief, Fire Department

For questions, please contact Robert Sapien, Jr., Fire Chief, at (408) 794-6952.