

September 2017



CHULA VISTA
FIRE
DEPARTMENT



Public Safety Staffing Study



CITY OF CHULA VISTA PUBLIC SAFETY STAFFING REPORT

Introduction

The City of Chula Vista is located at the center of one of the richest cultural, economic and environmentally diverse zones in the United States. It is the second-largest city in San Diego County with a population of over 267,000. Residents enjoy a multitude of quality of life amenities, including award-winning public schools, established neighborhoods, parks and trails, shopping and dining opportunities, and popular attractions. Chula Vista is one of the top ten safest cities of its size in the country.

Chula Vista also is advancing major initiatives that will raise the City's standing and reputation. A regional leader in conservation and renewable energy, the City is showing results from bold actions to address climate change and was the first large city in the county to adopt a climate action plan in 2000. The City also is recognized as a "Smart City" for incorporating smart infrastructure in the Bayfront and other development to become more efficient through improved use of energy, water, and communications.

Chula Vista schools are some of the best in the county and state with Blue Ribbon School designations, high API scores, schools in eastern and western Chula Vista listed as "America's Best High Schools" by *U.S. News & World Report*, and notable successes like a Qualcomm Innovation Station at the Chula Vista Public Library.

Like many cities in the state and nation, the City of Chula Vista is challenged to sufficiently fund public safety services. While residents passed Measure P in 2016 to establish a temporary, ten-year, half-cent sales tax for infrastructure, revenues for public safety personnel are not keeping pace to provide services for the city's current and future population.

Public Safety, which includes police and fire services, is a top priority in the City of Chula Vista. As part of the fiscal year 2017-18 adopted budget, the City allocated 65% of discretionary revenues to the Police and Fire Departments combined. The allocation includes 5 new police officer positions added as part of the fiscal year 2017-18 adopted budget.

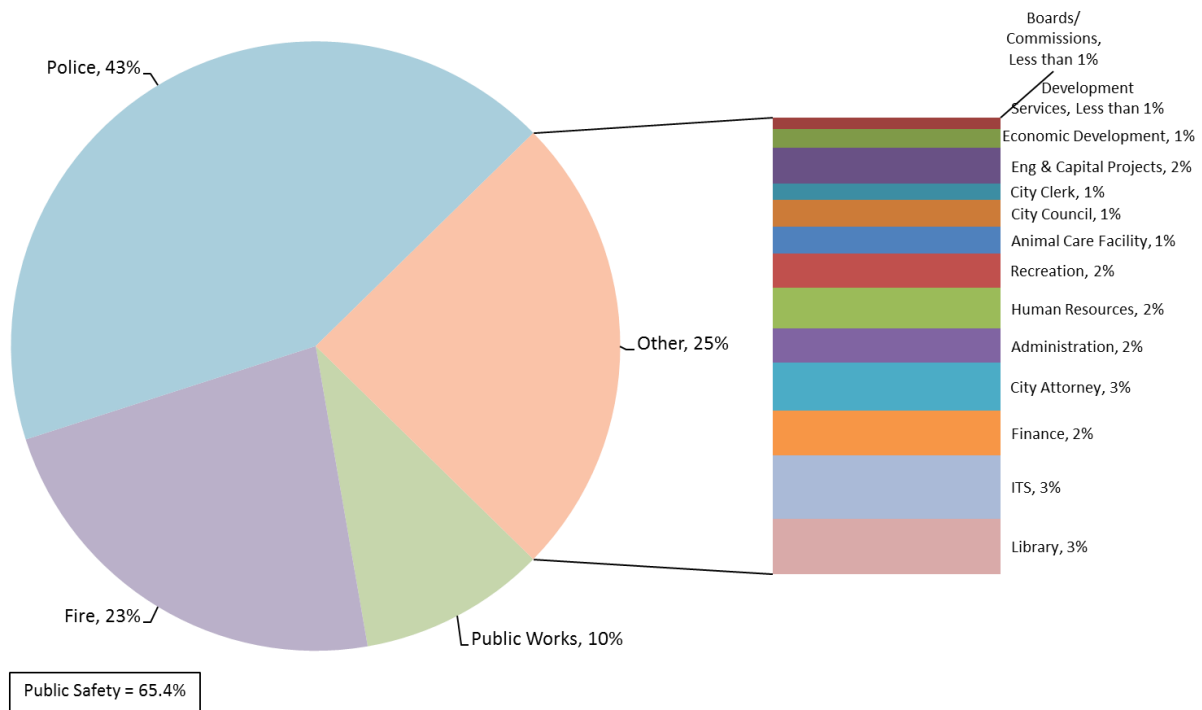
Recently, the City also approved adding 12 firefighters in the current fiscal year. Taking into account the additional 5 police officers and 12 firefighters as well as the support staff in Finance, Human Resources, Information Technology, City Attorney and Public Works the actual allocation of the General Fund for public safety services, including support services, is likely closer to 80%.

Some of the services provided by the support departments to public safety include payroll processing, deferred compensation, financial analysis, procurement, budgetary support, recruitment, employee benefits, workers compensation, employee performance, labor negotiations, public safety IT systems support, legal services, contractual oversight, risk management and facilities and equipment maintenance. The public safety staffing report does not take into account any additional positions in the support departments that will be necessary to support increases in public safety staffing.

At the June 6, 2017 Council Meeting, the City Manager was directed to “report back to the City Council within 120 days with a plan to address the chronic understaffing of the Police and Fire Departments, with such plan considering all options, including: (i) alternative service models that may improve effectiveness and reduce costs; and (ii) potential funding sources.”

The City Manager established an internal working group with staff from Fire, Police, Administration and Finance Departments to create this Public Safety Staffing Report. To provide the opportunity for community input, the City Manager also formed the Public Safety Advisory Committee (PSAC). The committee includes Chula Vista residents, business owners, and community leaders.

Figure 1: General Fund Personnel Net Cost



Source: *City of Chula Vista Fiscal Year 2017-18 Adopted Budget*

The Chula Vista Fire Department (CVFD) and Chula Vista Police Department (CVPD) collaborated to assess factors affecting public safety, including:

- Community and stakeholder feedback/input on priorities for delivery of public safety services
- Short and long-term staffing level standards for CVPD and CVFD
- Response times for Priority 1 and Priority 2 emergency Calls for CVPD
- Response times with properly equipped and staffed fire and medical units for CVFD
- Consideration of alternate public safety service delivery models

- Accounting for growth – 5-year, 10-year and build-out projection models
- Fiscal forecasts and impacts

The Public Safety Advisory Committee met on August 10 and 31, 2017. In the first meeting, staff presented an overview of current staffing levels, public safety funding, as well as the City’s five-year budget forecast. A Q&A session followed providing the committee members the opportunity to ask questions regarding public safety services, budgetary constraints, as well as to communicate any recommendations they would like considered. At the August 31 meeting, PSAC members broke into two groups for a roundtable discussion about Fire and Police services and priorities in Chula Vista. The intent of the breakout group sessions was to provide a forum for PSAC members to provide input on their experiences with public safety and their priorities for public safety services. The feedback provided input in the development of the Public Safety Staffing report. City staff will continue engaging with the PSAC as needed based on City Council feedback and direction.

The Public Safety Staffing Report continues to be a work in progress. Further refinement of recommendations and fiscal impacts will be assessed after receiving Council direction and feedback.

City Strategic Plan

The City Strategic Plan provides a comprehensive framework that ensures priorities set by the City Council are clear to all employees, goals are laid out that respond to priorities, objectives are achieved that meet the goals, and that city government is accountable to meeting community needs. The Strategic Plan centers on five core goals:

- Operational Excellence
- Economic Vitality
- Healthy Community
- Strong and Secure Neighborhoods
- Connected Community

The goals are broad statements of what the City is striving for in delivering services to the community; they are both quantitative and qualitative in nature. The Plan identifies strategies and initiatives to support the core goals. Implementing these strategies and initiatives is how the City achieves a shared vision of a vibrant and sustainable quality of life for Chula Vista residents and businesses. The Public Safety Staffing Report supports all City Strategic Goals.

To provide accountability and document progress, an annual report outlines progress made toward implementing strategies and initiatives that respond to the goals. See chulavistaca.gov/departments/city-manager/strategic-plan.

Chula Vista Police Department

Introduction

The Chula Vista Police Department (CVPD) is the second largest municipal police agency in the County of San Diego, with an authorized staff of 232 sworn and 90 civilian positions serving a population of 267,917¹. This report examines historical and current staffing and service levels, as well as projected City growth trends and measures of Police Department effectiveness. The report provides recommendations based on the following goals:

- *Catch Up* – What reasonable performance outcomes, staffing levels and budget should initially be requested to restore CVPD to its minimally acceptable historic public safety service capacity and meet the City’s current public safety needs?
- *Keep Up* – Once the CVPD is caught up, what levels of resources and budget are required to keep up the level of service in the short term?
- *Moving Forward* – What levels of resources and budget are required to sustain the level of public safety service through projected build-out and beyond?

Background

To understand CVPD as it exists today, it is important to understand the effects of significant cuts stemming from the Great Recession. The Great Recession of 2008-2012 greatly impacted the City of Chula Vista and CVPD, resulting in steep staffing cuts which impacted all City departments. In recent years, the City began to recover from the Great Recession and is again poised for sustained growth, however, population growth and an increasing demand for police services have exceeded the fiscal recovery. Today, CVPD remains significantly understaffed compared to its own historic standards and current staffing levels of neighboring police agencies. This report will explore the consequences of severe understaffing and how it has negatively impacted public safety services provided by CVPD.

According to the City’s latest Five-Year Residential Growth Forecast, the City’s population grew by 9% from 243,916 residents in 2010 to the current estimated population at 267,917. This robust growth continued even as CVPD sworn staffing shrank 11% from its historical staffing peak, thereby further straining its service capacity.

Looking to the future, the City once again has several major residential and commercial projects in advanced stages of the planning and development process and is poised for robust growth. As the City grows, Police Department operations are likely to be further strained. Although the City’s Long Range Financial Plan has proposed allocation of funding to add five officers a year over the next five years, the number is insufficient to restore CVPD public safety capacity to historic levels.

¹ www.dof.ca.gov/Forecasting/Demographics/Estimates/E-1/

Pro-Active Organizational Response to Downsizing: Doing More with Less

Historically, CVPD has been a very lean and efficient organization which has been committed to providing excellent service while using resources effectively. Just prior to the Great Recession, CVPD had successfully kept pace with growth while carefully leveraging the public's investment in public safety services. As the City's budget contracted year after year starting in 2007, CVPD's capacity fell past the tipping point where it no longer had sufficient personnel to maintain its historic service levels. CVPD has not recovered from the severe cuts it sustained during the downturn.

In response to years of downsizing, CVPD management examined operations at every level to maximize efficiencies. Most strategies centered around preserving Community Patrol staffing, the Department's first line of service delivery. Toward that goal, there has been an organizational contraction and shift from other units and divisions toward sustaining basic Community Patrol operations. One key objective with the strategy has been to ensure that emergency related calls, primarily those where lives are at stake, are being addressed first.

Additionally, virtually all CVPD lines of business are continually scrutinized and revamped through the City's Continuous Improvement program to maximize efficiency and maintain services in the face of reduced staffing. Unfortunately, in some cases, traditional levels of police service have been reduced or eliminated for lack of resources.

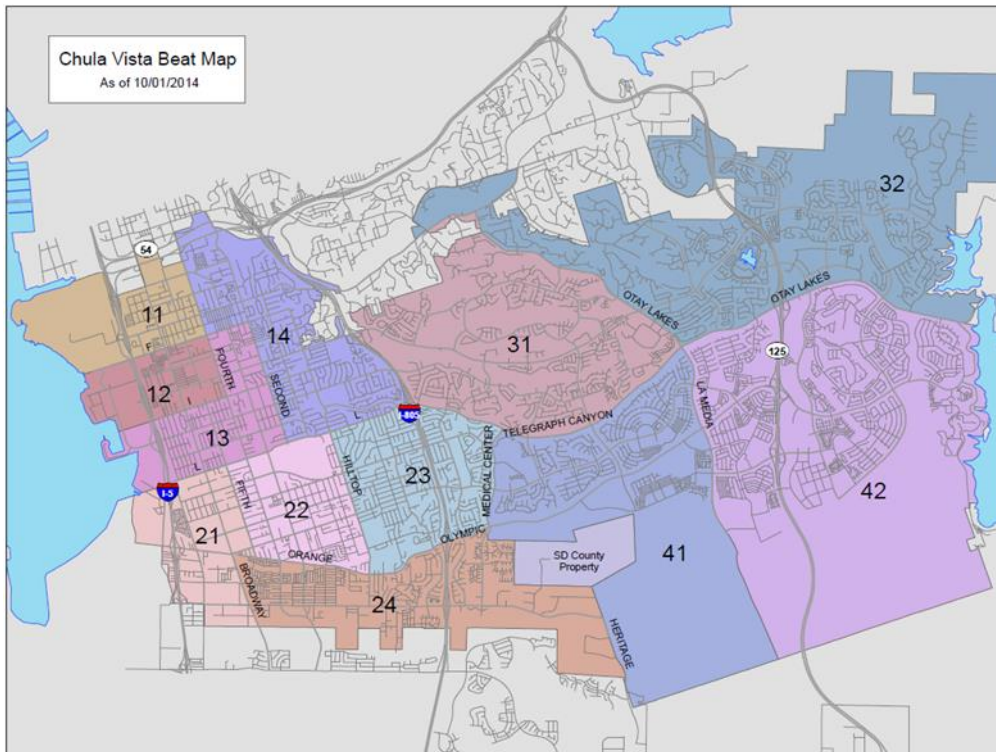
Some strategies and response changes include:

- CVPD eliminated several partially funded task force positions to accommodate patrol priorities. This reduced CVPD's participation and influence within the regional, local and federal law enforcement community
- In 2011 CVPD contracted with the United States Marshal's (USM) service to house pre-arraignment Federal prisoners in the CVPD jail.
 - The USM contract offsets City jail operational costs for civilian jail booking staff
 - Outsourcing of prisoner transportation to a private security company
 - These combined strategies fund City Jail operations and help get police officers back into service faster to focus on their highest-level work in Community Patrol
- In 2012 CVPD implemented the Graffiti Tracker system to streamline graffiti investigations and aid in prosecutions
- In 2012 CVPD implemented the NetRMS system (an electronic reporting system to replace inefficient paper-based reporting)
 - Enhanced data collection and data-driven operational decisions
 - Improved report work-flow processes, report approval and information sharing
 - Automated data entry to allow allocation of staff to other higher-level tasks
- Seeking further efficiencies, in 2012, 2013 and 2014 CVPD contracted with the Matrix Consulting Group to conduct a top to bottom review of the department and recommend changes and efficiencies. Combined, these are informally known as the Matrix Reports
 - Numerous Matrix Report recommendations were implemented

- Adopted 40% pro-activity target for patrol
 - Implemented verified response alarm program
 - Adopted hybrid 12-hour Community Patrol schedule to maximize deployment during peak demand periods
 - Added 5 more Community Service Officers (CSOs) to patrol (1 additional Patrol CSO position currently frozen in the budget)
 - Added 2 Sergeants to Community Patrol to improve oversight and supervision
 - Resolved technology problems (what timeframe?)
 - Fixed NetRMS problems
 - Upgraded Report Writing Room computers
 - Upgraded Mobile Data Computer fleet
 - Implemented Automated Vehicle Location System
 - Reclassified two Police Services Officers into supervisors to improve jail oversight
 - Transferred one lieutenant to Special Investigations to oversee highly sensitive operations
- Funding limitations curbed CVPD's ability to capitalize on all recommendations in the Matrix reports
- 2013 Reviewed and reprioritized operational policies regarding Calls for Service (CFS) to ensure limited Community Patrol staff had more time to respond to priority Calls for Service and to conduct for self-initiated activities. Operational changes included
 - Began study and implementation steps for verified response alarm program
 - CVPD ceased taking reports for non-injury collisions. Today, CVPD officers only assist with exchanging names and do not investigate non-injury collisions or determine fault. Officers are still dispatched to investigate injury collisions and hit and runs
 - CVPD stopped responding to barking dog calls – now referred to the Animal Resource Officer for follow up during normal business hours.
 - CVPD stopped sending School Resource Officers to follow up on students who are truant due to severe staffing cuts
- In 2013 CVPD introduced a hybrid patrol schedule to maximize Community Patrol staffing during times of peak Calls for Service (CFS)
- In 2014 CVPD evaluated and finalized a Beat restructuring process to balance Calls for Service, officer workloads, and account for increased growth and public safety demands in the City's eastern sectors
 - Prior to the restructuring, CVPD only had ten Beats divided between three Sectors (Sector 1, Sector 2 and Sector 3). The third Sector consisted of just two Beats covering everything east of the I-805 freeway
 - The restructuring process divided most of the eastern part of the City into two Sectors (sectors 3 and 4) consisting of 2 Beats each.

- CVPD now has 12 beats divided among 4 sectors but it should be noted that the eastern beats are very large, have increasing public safety demands and take longer times to traverse (See Figure 2 below)
- The Beat restructuring process was based on analysis of call volume, crime trends, and overall physical, geographic and demographic boundaries
- It should be noted that adding beats did not mean more Community Patrol officers are always deployed to fill every beat. Some beats frequently go unstaffed due to lack of Community Patrol resources

Figure 2: Current CVPD Beat Map



- In 2014, CVPD engaged in a Strategic Planning process to reprioritize and analyze all lines of business to maximize service delivery and efficiencies
- By 2014 CVPD implemented a Verified Response Alarm program to reduce the impacts of false alarms
 - Studies have shown that 97% of burglary alarms are false alarms.
 - Two officers respond to each alarm call, thus, the strategy of limiting false alarm responses frees up officers to work on other priority Calls for Service
- Since 2015, CVPD has devoted significant resources to personnel and equipment enhancements to bolster its technology to streamline workflow and improve efficiencies

- In 2017 CVPD changed the Communications Center schedule to align Dispatcher teams to Community Patrol teams to improve efficiencies and coordination to improve service outcomes
- In July 2017 CVPD completed a major upgrade of Computer Aided Dispatch (CAD) system
 - Two-and-a-half year, multi-million-dollar project to replace an 18-year-old legacy CAD system that was obsolete and hampering operations
 - The new CAD system includes an advanced Automated Vehicle Location (AVL) system which was a key recommendation of the Matrix Report
 - When fully implemented, the new CAD system will streamline dispatcher and officer workloads and processes
 - The new CAD system includes state of the art data analytics and reporting functions to support data driven decision making and intelligence led policing efforts
 - The new CAD system is the first and largest CVPD initiative to benefit from Measure P infrastructure funding approved by voters in November 2016
- CVPD has procured and is in the process of deploying Smart Phones to all sworn officers to enhance automation and efficiencies
- CVPD analysts are exploring ways to deploy strategic data resources to predict crime trends
- CVPD routinely utilizes a variety of grants and other funding opportunities to enhance operational capacity; although such funding tends to be highly restricted and generally cannot be used to supplement routine Community Patrol operations

These measures are only some examples of CVPD efforts to continue to provide high quality public safety service in the face of reduced staffing and increasing demand. CVPD staff have always focused on being careful stewards of taxpayer dollars and will continue to do so with the resources to which they are entrusted. Despite these measures, there exists a real tipping point where CVPD efforts to provide its historic level of public safety service with less staff was exceeded. The following section will explore CVPD's current operational capacity and ability to effectively police Chula Vista going forward.

Rising to the Challenge: CVPD today

While CVPD emerged from the fiscal crisis a leaner and more efficient organization, it was at the cost of police service levels which Chula Vista residents historically expected. This steady loss of service capacity over the last decade occurred despite staff's best efforts to make operational changes and stretch staff resources. This section will explore ways to understand CVPD's current organizational effectiveness via several measures.

There are several ways to measure a police department's effectiveness. When considering a department's overall performance, it is most important to consider how effectively staff and resources are used to advance the public safety mission. Some common measures of police effectiveness include consideration of staff workload in the context of desired outcomes and performance objectives. Examples of relevant performance objectives and outcomes include:

- Crime rates
- Response times
- Staff workload
- Case clearance rates
- Community relations and community satisfaction
- Strength of partnerships with allied agencies, government entities and NGOs
- General statistics like tickets, arrests, contacts, licensing, calls for service, reports, etc.
- Free time for proactivity by officers (to include community policing and problem-solving efforts)
- Liability, use of force statistics, and citizen complaints
- Adequacy of police training leading to positive call outcomes

Police work is a multi-dimensional endeavor which does not lend itself to standardized outcome measurements. There are many variables to consider when measuring a police department's effectiveness. When considering some of the above outcomes, CVPD fares well: Chula Vista is generally considered to be one of the safest cities in the region, it has a relatively low crime rate for a city its size, it has generally good community relations and a relatively low number of incidents resulting in civil liability, use of force and citizen complaints.

On the other hand, by some of the above measures, CVPD is under strain as an agency. While some measures, such as steep declines in citations and arrests, are not direct gauges of good police service, they may be indicative of a lack of pro-active time in Community Patrol. CVPD is struggling to keep pace with other outcomes such as response times, case clearance rates, and allocating time to focus on problem solving and community relations. These efforts generally correlate more with positive service outcomes and measures of effectiveness.

Some other metrics, such as measuring and understanding citizen satisfaction and community priorities, are important but more difficult to quantify. Prior to 2006, CVPD contracted with SANDAG to conduct formal bi-annual community surveys. Due to budget constraints, CVPD has not conducted a citizen survey since 2006. Although costly, such surveys provide important public participation and feedback to police administrators and City policymakers to guide service and resource prioritization. Staff recommends a formal community survey be conducted by SANDAG using contemporary measures. However, such funding does not currently exist in the Police Department budget.

Matrix Group Reports

The Matrix Group reports analyzed every facet of CVPD operations and focused extensively on workload analysis to recommend staffing levels. The Matrix group not only analyzed sworn staffing, but examined other ways to maximize CVPD's fiscal return on investment by re-thinking ways to maximize service delivery via alternative strategies. In some cases, strategies included utilizing civilian staff and alternate service delivery models to supplement and leverage resources.

The Department's first lines of service delivery are the Communications Center (Dispatch) and Community Patrol. While the Matrix reports discussed numerous ways to streamline operations and improve service delivery, the Community Patrol workload formula is most relevant to measuring CVPD's front-line

operational capacity. The Matrix workload formula analyzed many variables to determine officer workloads in Community Patrol and recommend a final staffing number:

- Number of calls for service
- Total handling time for calls
- Average time per call
- Number of reports written
- Average time per written report
- Average total workload per call
- Number of patrol officer positions
- Total annual work hours
- Average leave hours
- On-duty training hours
- On-duty court hours
- 40% pro-activity target
- Average administrative time per shift (to include lunch)

Based upon the latest Matrix Workload Analysis formula, Community Patrol should be staffed by an additional 36 officers; or an average of six more officers per patrol team. By this measure, Community Patrol is 35% understaffed based upon officer workloads (see figure 2).

Figure 3: Matrix Workload Analysis report for Community Patrol

July 2017 Matrix Community Patrol Workload Analysis					
Current Patrol Staffing	8%-10% average Light Duty and Injured	Trainees and Academy	Actual Available Patrol Staffing	Matrix Workload Recommended Staffing	Difference
123	-10	-10	103	139	36

Sections that follow will show the real-world impacts of severe understaffing in the form of longer response times and less pro-active enforcement in important areas like arrests, citations and other enforcement activities.

Response Time Thresholds

Threshold standards for 11 quality of life areas were established by the Chula Vista City Council in 1987. These standards are memorialized in the City’s “Growth Management” ordinance (Chapter 19.09 of the Chula Vista Municipal Code). The City of Chula Vista Growth Management Oversight Committee (GMOC) annually measures quality of life standards in Chula Vista for core City services. For the Police Department, the GMOC report measures success based on Priority One and Priority Two call response time thresholds.

In recent years CVPD has fallen short of acceptable GMOC thresholds established for Priority 1 and Priority 2 Calls for Service.

GMOC Threshold Standards:

- **Priority 1** – Emergency Calls². Properly equipped and staffed police units shall respond to at least 81% of Priority 1 calls within 7 minutes 30 seconds and shall maintain an average response time of 6 minutes or less for all Priority 1 calls (measured annually).
- **Priority 2** – Urgent Calls³. Properly equipped and staffed police units shall respond to all Priority 2 calls within 12 minutes or less (measured annually).

To optimize Community Patrol operations with fewer staff, the Department has taken aggressive steps to reallocate resources to improve service and efficiency, especially pertaining to response time thresholds for Priority 1 and Priority 2 calls. In recent years, the Department changed how it prioritized calls, stopped responding to non-injury collisions, instituted a verified response alarm program, changed to a hybrid staffing system, and added Community Service Officers to patrol to free up officer time.

In 2016, voters approved Measure P, a temporary half-cent sales tax dedicated to improving City infrastructure. A portion of Measure P funds were immediately allocated to help CVPD implement a multi-million-dollar upgrade to its Computer Aided Dispatch (CAD) system, in part to streamline operations with the intent of reducing response times. Benefits of the new system include significant improvements to mapping systems, turn by turn navigation and other features such as Automated Vehicle Location (AVL) to send the closest patrol units to calls. The CAD system went “live” in late July 2017 and staff anticipates that additional CAD system components will be completely implemented and certified by October 2017. However, there will be a period before the full benefits of the new CAD system may be formally measured.

Despite these efforts, the 2017 GMOC annual report for the Police Department noted non-compliant response times for Priority 1 and Priority 2 calls for service (CFS). The GMOC report also noted that the Department was non-compliant regarding Priority 1 response thresholds for the fourth year in a row and non-compliant for Priority 2 response thresholds for the nineteenth year in a row. This is despite the best efforts of staff to make operational changes to Community Patrol to meet GMOC thresholds. (See Figures 3 and 4).

² Priority 1 – Emergency Calls are life-threatening calls; felony in progress; probability of injury (crime or accident); robbery or panic alarms; urgent cover calls from officers. Response: Immediate response by two officers from any source or assignment, immediate response by paramedics/fire if injuries are believed to have occurred.

³ Priority 2 – Urgent Calls are misdemeanor in progress; possibility of injury; serious non-routine calls (domestic violence or other disturbances with potential for violence). Response: Immediate response by one or more officers from clear units or those on interruptible activities (traffic, field interviews, etc.)

Figure 4: GMOC Priority 1 Threshold Calls for Service 2011-2016

Priority 1 – Emergency Calls for Services			
Fiscal Year	Call Volume	% of Call Responses Within 7 Minutes 30 Seconds	Average Response Time (Minutes) (Threshold = 6 Minutes)
FY 2016	742 of 67,048	71.0%	6:31
FY 2015	675 of 64,008	71.2%	6:49
FY 2014	711 of 65,645	73.6%	6:45
FY 2013	738 of 65,741	74.1%	6:42
FY 2012	726 of 64,386	72.8%	6:31
FY 2011	657 of 64,695	80.7%	6:03

Source: *City of Chula Vista Growth Management Oversight Committee Report, April 2017.*

Figure 5: GMOC Priority 2 Threshold Calls for Service 2011-2016

Priority 2 – Urgent Calls for Service		
Fiscal Year	Call Volume	Average Response Time (Minutes) (Threshold = 12 Minutes)
FY 2016	19,288 of 67,048	13:50
FY 2015	17,976 of 64,008	13:50
FY 2014	17,817 of 65,645	13:36
FY 2013	18,505 of 65,741	13:44
FY 2012	22,121 of 64,386	14:20
FY 2011	21,500 of 64,695	12:52

Source: *City of Chula Vista Growth Management Oversight Committee Report, April 2017.*

Priority 1 and Priority 2 calls for service represent 20,030 of the 67,048 calls handled in 2016, or about one-third of the Community Patrol workload. Also of note; GMOC does not measure Priority 3, Priority 4 or Priority 5 Calls for Service, which also represent important service demand from the community. Lower

Priority call response times have also increased precipitously, resulting in longer wait times for police service for other important calls like auto theft reports, loud parties, disturbances, etc.

For years, annual GMOC reports have recognized that CVPD chronic understaffing is a significant factor in its failure to meet response time thresholds and the Police Department has recommended increased staff and resources to address the issue. While the City has provided more police staff in recent years, the number has been insufficient to keep pace with growth and meet contemporary public safety demands. Not being able to meet response times also negatively impacts the Department's relationship with the community.

Crime Rate

Another way to measure a police department's impact on the community is to examine macro trends like crime rates. According to a recent report on San Diego regional crime trends by SANDAG⁴, Chula Vista's crime rate compares well with regional agencies which indicates CVPD is doing a relatively good job fighting crime. While this outcome is certainly positive, it is consistent with regional trends over the last 17 years during which crime rates have fallen.

- Chula Vista reported 2.63 Violent Crimes per 1,000 population for 2016; a lower rate than the San Diego regional average of 3.33
- Chula Vista reported 16.05 Property Crimes per 1,000 population for 2016; a lower rate than the San Diego regional average of 18.66
- Chula Vista's Violent Crime rate rose 13% between 2012 and 2016. This is opposite of the regional trend of falling Violent Crime rates (-11% region-wide)
- Chula Vista's Property Crime rate fell 21% between 2012 and 2016. This drop was slightly more than the regional average of a 15% drop
- Chula Vista's Domestic Violence incidents have increased 9% from 2012-2016 while the regional average remained unchanged

Other Service Concerns and Shortfalls

While outcomes like response times and crime rates are important, they are by no means the only measures of police effectiveness because they do not account for the full range of police services provided by the Department which are also important to public safety. For example, other outcomes such as time for problem solving, community relations, case follow up, reduced citizen complaints, case closures, successful call resolution, or myriad other markers of the quality of police service are also important to the community. These outcomes directly impact citizens who need some resolution to their primary reason for calling for help. Not being able to meet the expectations of the community leaves a bad impression, or in a worst-case scenario, some citizens may stop reporting crimes altogether.

⁴ *Thirty-Seven Years of Crime in the San Diego Region: 1980 Through 2016* (SANDAG: April 2017)

Crime rates also paint an incomplete public safety picture because they do not measure other service outcomes such as problem solving, community relations, homeless outreach and other activities which contribute to the overall quality of life in a city. Crime statistics also do not account for unreported crimes which still significantly impact quality of life and community perceptions of safety.

In the last decade, the city has grown rapidly and crime fighting has become more complex even as CVPD was constrained by budget cuts. While CVPD has done an outstanding job with available resources, there is concern at all levels in the organization about the capacity to maintain this relative success without significant re-investment in personnel capacity, both on the sworn and civilian sides.

CVPD Communications Center

The CVPD Communications Center is the first point of contact for service delivery for virtually all police and fire services. All 911 calls go to the Communications Center first before being routed as emergency calls to Chula Vista Police Dispatchers or Chula Vista Fire Dispatch, which is outsourced to the City of San Diego. The Communications Center receives and process all emergency and non-emergency calls. When the 911 system is overwhelmed it becomes a chokepoint and barrier to dispatching police and fire services.

Also, a significant number of routine administrative calls are also routed through the Communications Center. Some examples of 2016 Communication's Center workload include:

- 306,188 total calls handled (11,776 calls per budgeted position)
- 67,048 Citizen Initiated Calls for Service
- 35,091 Officer Initiated Calls for Service
- 19,327 Cases/Reports issued

Another service issue is the lack of a full-time Communication's Center Manager to oversee operations. CVPD strategic plans and staffing studies dating back to 2003 have outlined the need to budget for a full-time Communication's Center Manager, more Police Dispatchers and more Police Dispatch Supervisors in the Communications Center. Budget cuts since the Great Recession continue to thwart this goal. Due to budget constraints, a police lieutenant splits his time between managing the CVPD Communication's Center and the City Jail, both of which are critical 24/7 tasks with significant operational roles and liability exposure to the City. The Matrix reports also recommended staffing a full-time civilian Communications Center Manager in lieu of a half-time lieutenant.

CVPD is currently authorized 21 Police Dispatchers and 5 Police Dispatch Supervisors. This is lower than 2007 when 4 Police Dispatcher positions were eliminated due to budget cuts. The Association of Public Safety Communication Officials (APCO) standards indicate that CVPD should be staffed by a minimum of 30 Police Dispatchers, not including supervisors, based upon call volumes.

Also, contrary to industry standards, Police Dispatch Supervisors are routinely required to handle phone calls or radio channels to keep up with call volumes and service demand. Because they are often doing line-level dispatcher tasks to keep pace with workloads, Police Dispatch Supervisors struggle to monitor

and supervise their staff during critical events. This also makes it difficult for supervisors to maintain situational awareness of rapidly evolving scenarios and puts officers and the public at risk. Workload and overtime fatigue have taken a toll on Communications Center staff, to the point where a cadre of police officers routinely work overtime in the Communications Center to relieve civilian staff. This is not an efficient use of officers but is operationally necessary to keep pace with Communications Center service demand.

Finally, other factors continue to impact the Communications Center because the proliferation of cell phones during the last decade often results in multiple emergency calls for each incident, increasing dispatcher workload. Call volume and workload can be expected to increase as the City grows, thereby exacerbating the problem.

Patrol Division Struggles to Meet Service Demand

Despite personnel transfers to Community Patrol from other CVPD divisions, first line patrol operations are falling short of historical performance standards and outcomes. As previously noted, Community Patrol is consistently unable to meet Priority 1 and 2 GMOC response times. Priority 3 and Priority 4 call response times have also increased dramatically, further increasing wait times for citizens reporting crimes or calling for police service.

Additionally, other markers of Community Patrol effectiveness indicate a decline in operational capacity, largely attributable to lack of pro-active time:

Notable areas of performance concern 2008-2016

- 53% decline in officer initiated calls for service
- 41% decline in felony arrests
- 26% decline in misdemeanor arrests
- 49% decline in traffic citations
- 28% increase in traffic related deaths and injuries
- 10% increase in traffic collisions
- 51% decline in parking citations

These statistics are indicative of a reactive patrol stance rather than one which is pro-active and service oriented. The primary factor for such reductions likely are officer workloads and lack of pro-active time to address community problems other than priority calls.

It is also worth noting that police work has changed and cases and workloads are more complex than ever. This means patrol officers must consider many more factors as they go about their work. Oftentimes this results in a substantially increased workload. For example, the District Attorney's Office has enhanced case issuance guidelines which often requires more time for initial field investigations and subsequent follow up work by detectives. Body Worn Cameras have many benefits but they slow down the report writing process by requiring officers to review video footage to ensure report accuracy. Also, Social Media use, almost non-existent a decade ago, has exploded and adds to case complexity and investigative time.

To complicate matters, the public's use of smart phones and other electronic devices requires extra time, training, sophistication and expertise to thoroughly investigate cases. For example, search warrants are often required when phones are seized and cases with multiple suspects may require extensive downloads and searches of several phones and electronic devices to build a prosecutable case.

Social changes also complicate policing. Drugged and Drunk driving cases are increasingly complex and difficult to detect, investigate and prosecute. Changing drug laws and an increasingly socially acceptable drug culture means more drivers are under the influence of substances other than alcohol and increasingly more dangerous. In some cases, like driving under the influence of marijuana, extensive training as a Drug Recognition Expert is required and standards to present a prosecutable case can be challenging.

Changes in criminal codes and sentencing laws have been challenging. For example, in 2013, AB109, Public Safety Realignment, changed sentencing laws through the early release and reduced sentencing of criminals. This increased the number of probationers and parolees in the community, presenting a challenge to police departments like CVPD whose resources did not increase to meet the challenge of more unsupervised offenders released into the community.

Closely following AB109, in 2014 voters approved Proposition 47 which changed many drug and property crimes from felonies to misdemeanors. The impacts of Proposition 47 continue to be a challenge as police departments deal with deadly trends like the expanding opioid crisis where heroin and Fentanyl use have surged.

Prior to Proposition 47, possessing a usable amount of a controlled substance other than marijuana was a felony which could be used by prosecutors as leverage to get addicts into treatment programs. Since Proposition 47 passed, these offenses are now misdemeanors which means offenders are often simply cited and released with few consequences for their actions. Another challenge has been Proposition 64, California's legalization of recreational marijuana. Marijuana use was difficult to regulate before the change and it is more difficult now, especially in public areas such as parks since there are no effective repercussions for violations.

One example of the impacts of these legal changes have had on Chula Vista can be seen in Harborside Park, which opened in 2006 and was the first park opened on the west side of Chula Vista in over 30 years. The park is immediately adjacent to an elementary school and was designed to be student and family friendly. Since opening, Harborside Park has gone from being a community park to being a problem area where parolees, probationers, the homeless and drug abusers congregate. This has resulted in excessive refuse, graffiti, drug use in the bathrooms and community perceptions that the park is unsafe. CVPD dedicates significant effort to keep Harborside Park clean and safe for the community but it is challenging with existing resources.

The impact of these changes means that today there are fewer legal tools for police to use for problem solving. It also means there are fewer consequences for non-violent offenders, resulting in a catch and release cycle, especially for drug and property crimes. This reduces the ability of CVPD to ensure that Chula Vista's investments in quality infrastructure projects like parks are safe and protected for the intended uses of our residents.

CVPD is also challenged by increasing calls for service regarding homelessness which require more time and resources. Issues surrounding homelessness became so serious that in the Fiscal Year 2016-17 budget, the City Council approved funding to add two officers and a part-time coordinator position to form the Homeless Outreach Team. While the Homeless Outreach Team (HOT) team has done great work, the current resources are not sufficient to address this significant issue which requires constant monitoring and attention.

Patrol officers still shoulder the lion's share of calls related to homelessness. These cases are not simple and often they involve complex social dynamics, substance abuse and mental health problems. A humanitarian policing response is complex and time consuming. Homeless outreach involves close collaboration with social service providers to provide wraparound services and enforcement to address the chronically homeless. Again, such coordination is a complex and lengthy process

The disposition of the property of homeless persons is also difficult and time-consuming. Some homeless persons keep all their possessions with them on the street. Oftentimes, this represents quite a bit of property, which tends to be stored in carts or in the public right of way (canyons, sidewalks, vacant lots, storefronts, etc.). Case law requires the Police Department store such property for a period if it is impounded. This creates transport and storage issues and takes officers out of service for longer periods of time.

Other Service Challenges

The Criminal Investigations Division has experienced an overall 29% reduction in detective and professional support staff since 2008. This is because resources have been redeployed in support of sustaining Community Patrol operations.

The School Resource Officer (SRO) Unit is part of the Criminal Investigations Division and serves 65 schools with 57,000 students. Contracts with CVESD and SUHSD offset almost 50% of the cost of these services with the remainder covered by the city. Despite school district support, SRO staffing has been cut 60% from 20 officers and 2 sergeants in 2007 to 8 officers and 1 sergeant in 2017.

SRO officers are a critical resource to the City's most vulnerable population, often serving as counselors, youth mentors and community role models. CVESD and SUHSD line level staff and administrators consistently express appreciation for the outstanding service provided by SROs, however, they would like more officers available. Perhaps more concerning is the fact that student populations continue to grow and both school districts are projected to add schools to meet demand while CVPD has no resources to expand this critical service.

The Property Crimes Unit (PCU) is also within the Criminal Investigations Division. Since 2007 the unit has been cut from 10 detectives to 6 detectives. These detectives are assigned over 7,000 cases per year, or more than 1,160 cases per detective. The workload is overwhelming and results in "workable" criminal cases falling through the cracks through triage. This allows criminals to continue committing offenses.

This system of triage means that felony cases are the priority for investigation. Due to workload demands of the small group of detectives, misdemeanor cases like bike theft, auto burglaries, fraud and petty theft rarely receive investigative follow up. One example of the resulting shortfall is that there is no longer a dedicated auto theft detective assigned to PCU. To make up for this investigative shortcoming, some auto theft workload is shouldered by two detectives and a sergeant assigned to the Regional Auto Theft Task Force (RATT) because the Department is reimbursed 60% of their salaries. Utilization of funding from task force positions has been a key strategy to prop up overall sworn staffing in the face of steep budget cuts but it does not help core investigative capacity and is not a preferred strategy given the limitations set by the granting agencies.

The Family Protection Unit (FPU) is also part of the Criminal Investigations Division. While its staffing has remained unchanged with 8 detectives and a sergeant, they handle over 2,000 cases per year. FPU detectives' workload includes some of the most serious, complex and sensitive cases like domestic violence, sexual assaults, rape as well as child sexual and physical abuse. Each of these cases is life-changing for the families and victims involved and investigations and resolutions may take years in some cases.

FPU is also responsible for registering and tracking sexual offenders known as "290 Registrants." There are about 230 known sex offender registrants living in Chula Vista, many of whom are transient. When registrants are out of compliance, it is a criminal violation and they may be arrested. There is no dedicated "290 Registrant" detective.

The Crimes of Violence Unit (COV) investigates violent assaults, robberies, missing persons and homicides. COV has seen an increase of 1 detective (7 detectives to 8 detectives) since 2008. Despite the increased staffing, the investigative workload exceeds the units' capacity. While Chula Vista homicides rates have been historically low in recent years, aggravated assaults and robberies are on the upswing. The unit's workload is such that misdemeanor casework is heavily focused on gang-related activity. COV prioritizes and investigates gang related crime and works with the District Attorney's office to prosecute the most serious offenders. All COV cases are time consuming, complex and involve a great deal of coordination and investigative skill to solve. Some cases also may take years for teams of detectives to successfully investigate, arrest and successfully prosecute offenders.

Another serious concern is that COV does not have sufficient staff to dedicate a detective to reexamine "cold-case" (unsolved) homicides. There are currently 82 unsolved homicide cases in Chula Vista dating back to 1952 with one volunteer investigator assigned to work cases as he can. The volunteer investigator is a retired CVPD sergeant who volunteers one day a week and is currently delving into two cold cases. This volunteer has proven successful at solving cold cases in the past, demonstrating that investigative follow up on cold cases may lead to successful resolutions and closure for victims' families. Beyond this volunteer detective, no time is dedicated to cold case homicides unless new information is brought forward to COV.

In the face of fast-paced changes in technology and related case law, CVPD formed the Digital Evidence Unit (DEU) last year to support other units' investigative case work. For example, in an age when everyone

carries a smart phone, criminals are potentially carrying a world of evidence in their phone or electronic devices. Cases involving child pornography, fraud and gangs, to name a few, may have related digital evidence. DEU consists of an agent and Community Service Officer who are highly trained and have specialized equipment to extract such evidence. Also, many crimes have some other form of video evidence, such as video from a store or business where the crime took place. DEU helps detectives collect and process complex items of digital evidence in the furtherance of their investigative work.

DEU is also responsible for Body Worn Camera program management, including over 230 devices and thousands of hours of videos to manage and route to the District Attorney's office. This workload is only projected to increase since almost every significant case includes some form of digital evidence. The unit is also facing ever-evolving legal and technological challenges, like redacting, editing and enhancing videos, and writing search warrants all while attempting to keep up with the latest specialized computer technology.

CVPD also has critical operations outside of the investigative division. For example, the Traffic Operations Division is responsible for traffic enforcement, special events, traffic investigations and hit-and-run investigations. CVPD's 2006 resident survey indicated traffic problems were in the top three citizen concerns. Today it is much the same with traffic related complaints like speeding, red-light runners, DUI, distracted driving, aggressive driving and parking related matters among the top concerns expressed at community meetings.

Despite its importance the traffic division has faced an overall 42% reduction in staffing since 2007. The traffic division lieutenant was also eliminated in 2007, which results in less oversight. A police lieutenant currently manages the Traffic Division, Special Events and the Community Relations Unit. Staff cuts have resulted in less parking enforcement, vehicle abatement and commercial enforcement. For example, there are currently 385 open parking/vehicle abatement service requests pending in the ACT Chula Vista program. These service requests are handled by a single parking control officer in his time between working special events. This results in community blight and dissatisfaction with police service.

Fewer staff results in less time to provide pro-active traffic enforcement, especially to catch speeding and red-light violators. Traffic enforcement officers have little time to respond to citizen complaints about traffic issues including chronic complaints about severe traffic problems in school zones. One reason for this is that enforcement officers also investigate other traffic related matters such as serious injury collisions and Hit-and-Run investigations. In the last year ending August 31, 2017, there were 800 Hit and Run investigations, some of them resulting in serious injury. Only the most serious cases receive investigative attention.

Traffic unit personnel often face daunting workloads of over 80-hour workweeks, especially during concert season. When not working special events, traffic personnel often work special enforcement details related to traffic safety grants such as DUI, Click-it-or-Ticket, or distracted driver related enforcement. Overall, there are far too few personnel to make a significant impact on traffic enforcement related concerns in Chula Vista.

The Street Team and Gang Suppression Unit is a specialized problem-solving unit designed to have a flexible schedule to rapidly address problems with crime and disorder, especially hotspots or series related crime. This unit has faced a 53% reduction in staffing, falling from a high of 15 personnel in 2007 to 7 today. This includes the elimination of the entire JUDGE team which was a specialized task force dealing with serious gang crimes. The reduction of this unit impacts CVPD's problem-solving capacity and reduces gang enforcement and suppression.

The elimination of the Public Information Officer reduced CVPD responsiveness and public relations capacity. This service is even more critical in the social media age where the Department struggles to keep pace with the 24-hour news cycle and social media outreach. This is compounded by the loss of one Community Relations Officer and One Community Relations Specialist. These cuts reduced CVPD's Neighborhood Watch program capacity, eliminated the highly acclaimed Crime-Free-Multi-Housing Program, eliminated the Crime Prevention Through Environmental Design (CPTED) program and all but eliminated the award-winning Hotel/Motel Project. These cuts also reduced CVPD's crime prevention and outreach efforts. These efforts combined were state of the art, proven crime prevention strategies that went underserved for lack of resources.

Finally, CVPD cut three positions from Police Support Services, the Department's records unit, thereby reducing customer service in an important public facing unit. Service impacts include longer waits for reports, a reduction in information sharing capacity with allied agencies and difficulty keeping pace with CPRA requests. CVPD also cut one Evidence Control Specialist and the remaining two specialists do not have sufficient capacity to handle the workload. CVPD's evidence room has grown to 130,000 items of physical evidence which must be inventoried, stored and eventually purged. Some items are highly controlled, such as money, guns and drugs. If existing personnel cannot keep pace with the workload, the inventory will eventually outgrow the current facility and require additional warehouse space.

Collectively the listed and unlisted cuts represent a shift in operational capacity from the unit toward Community Patrol. This shift has impacted police services outside of patrol and still has not been sufficient to meet the public safety needs and expectations of police patrol services.

Staffing Impacts Public Safety

As can be seen from operational impacts outlined above, budget cuts of the last decade have had a significant operational impact on CVPD. By all reasonable measures, staffing cuts have stretched the Department to the limits of its ability to provide public safety services, yet the Department still succeeds on many fronts. Having examined several performance measures, this section will examine how CVPD's staffing compares to other regional agencies.

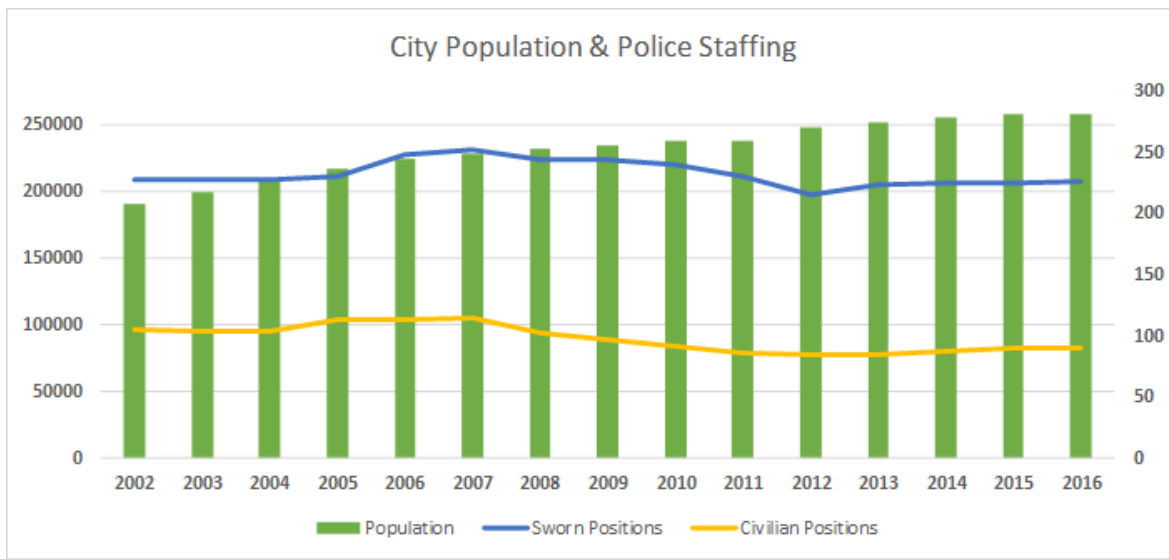
One broad measure of police staffing is the ratio of officers per 1,000 residents. The staffing ratio should only be considered as one data set in a broader series of measurements of police service capacity; it is not an accurate measure of the capacity of a police department or quality customer service on its own.

On the other hand, staffing ratios do give meaningful insight into staffing trends over a given period time and help decision-makers analyze staffing strategies among police agencies in a region. Combined with

other measures, the number of officers-per-thousand ratio can be relevant as one indicator of a police department’s capacity to deliver adequate public safety service to a community.

Figure 6 shows Chula Vista’s population growth relative to CVPD staffing from 2002 to 2016. The graph indicates the significant decline of sworn and civilian staff as they relate to population starting in 2007. In 2007, CVPD ratio was 1.12 officers per 1,000 population; today it is .87 officers per 1,000 population.

Figure 6: City Population and Police Staffing 2002-2016



A clearer view of the strong relationship between staffing and response time service can be seen in Figures 7 and 8. Figure 7 shows the correlation between sworn staffing and Priority 1 response times. Figure 8 shows the correlation between sworn staffing and Priority 2 response times. Note that in each instance, response times increased as staffing declined, despite the Department’s best efforts to improve efficiency.

Figure 7: Sworn Staffing and Priority 1 Response Times 2002 – 2017

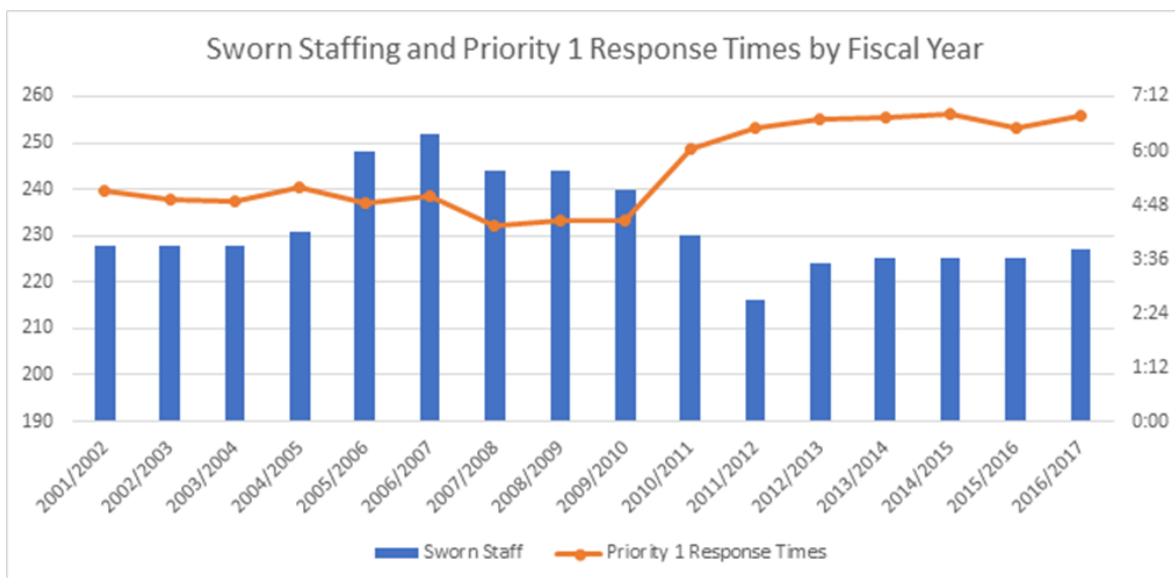
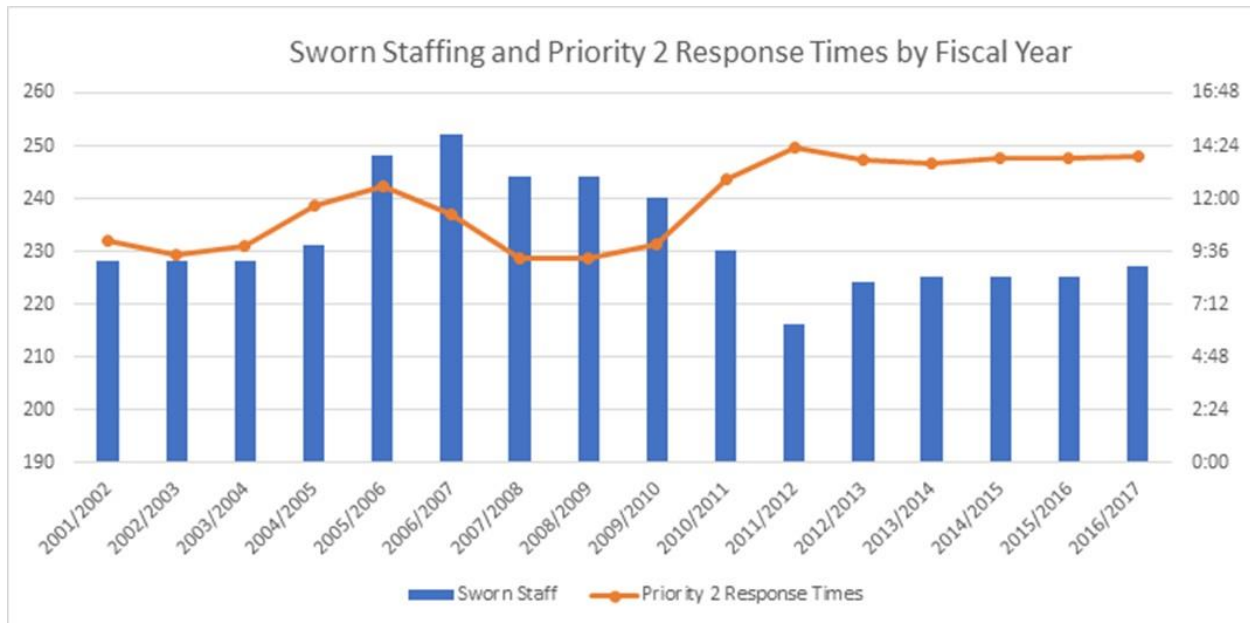


Figure 8: Sworn Staffing and Priority 2 Response Times 2002-2017

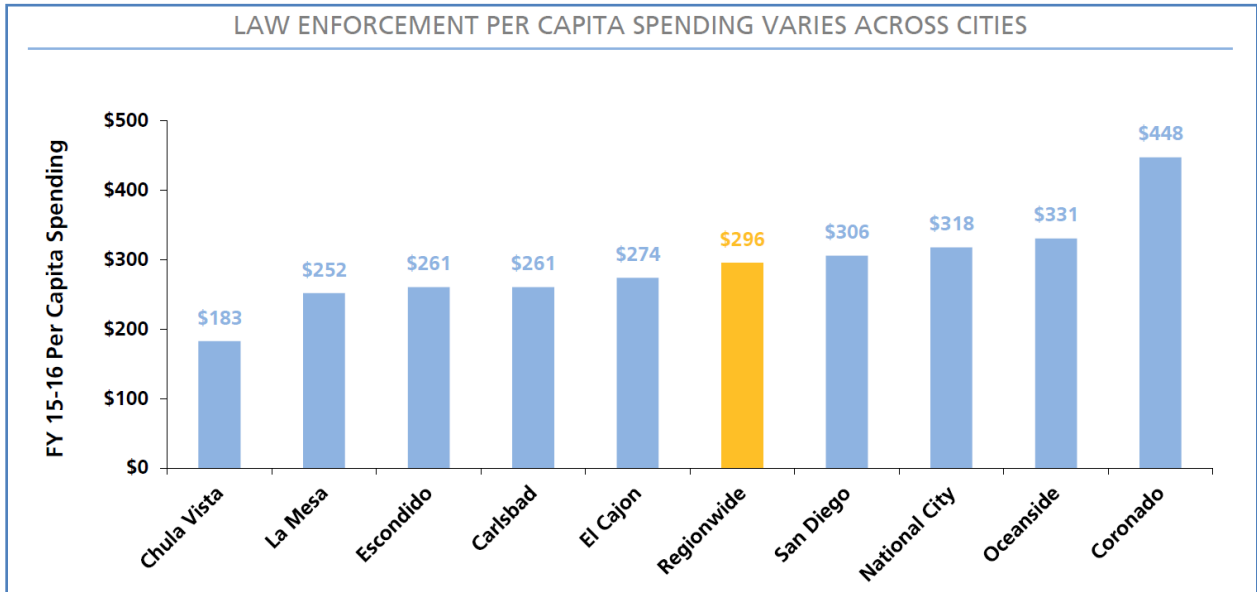


Countywide Public Safety Allocations

While there is adequate evidence to show a strong correlation between CVPD sworn staffing allocation and service thresholds, it is also useful to examine law enforcement staffing standards Countywide. The San Diego Association of Governments (SANDAG) Criminal Justice Division issues an annual report examining Public Safety allocations in San Diego County. Below are fast facts from the SANDAG report issued in December 2016:

- Regionally, there are an average of 1.29 sworn officers per 1,000 residents.
- CVPD has the lowest sworn officer-to-population ratio in the County at .92 officers per 1,000 residents. Note: based on the latest population and staffing figures, Chula Vista’s ratio is currently .86 sworn officers per 1,000 residents.
- The city with the next to last lowest staffing ratio is Carlsbad at 1.01 officers per 1,000 residents (Note: CVPD would need to hire 40 police officers immediately to be tied for last place in staffing ratios with Carlsbad)
- Chula Vista spends the by far the lowest amount per capita on law enforcement in the County as seen in Figure 9 below
- Chula Vista’s per capita spending on law enforcement has declined 24% in the last decade, from \$240 per capita in FY 06/07 to \$183 per capita in FY 15/16
- Note: Per capita spending in FY 17/18 is \$199 per capita

Figure 9: FY 2015-16 Law Enforcement Per Capita Spending



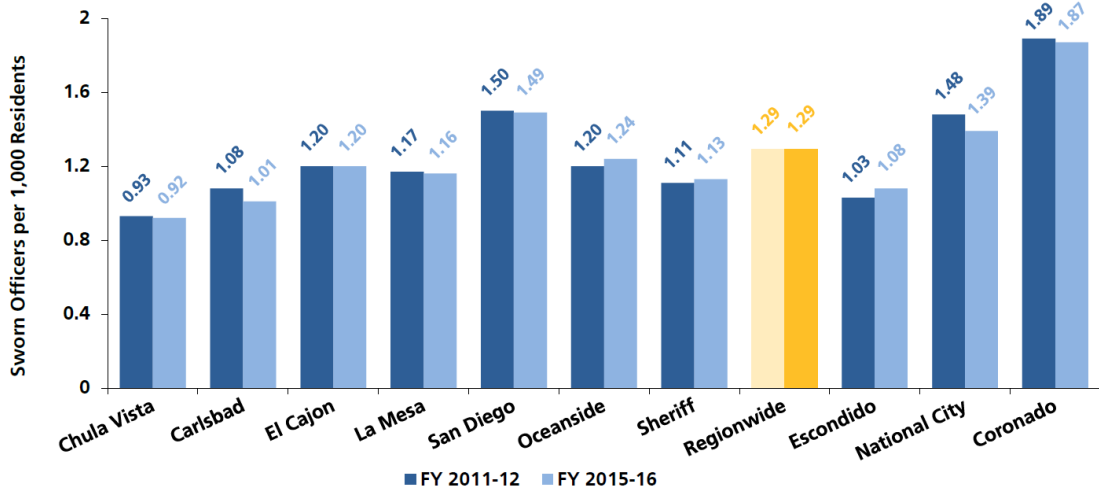
Source: SANDAG, *Public Safety Allocations in the San Diego Region: Expenditures and Staffing for Fiscal Year 2016*

Notwithstanding being the lowest staffed municipal police department in the County of San Diego, CVPD is one of the lowest staffed police departments in the State. Among 10 California cities with populations between 250,000 and 500,000, CVPD is second to last with for the lowest staffing ratio in the State of California (.86 officers per 1,000 population). The City of Irvine is last with .87 officers per 1,000 population. By any measure, today CVPD is an extraordinarily lean and efficient organization; however, staff is concerned on three fronts:

- The Department’s effectiveness and crime fighting capacity have been severely impacted by staff reductions
- The Department is vulnerable in that it lacks the capacity to meet current demand and catch up with projected growth, thus falling further behind the service needs of a growing city.
- The Department is vulnerable to catastrophic events such as wildfires, earthquakes or other natural disasters because of its limited operational capacity to sufficiently plan for and respond to disasters.

Figure 10: San Diego Region Sworn Officer-to-Population Ratio

REGION'S SWORN OFFICER-TO-POPULATION RATIO REMAINED UNCHANGED OVER PAST FIVE YEARS



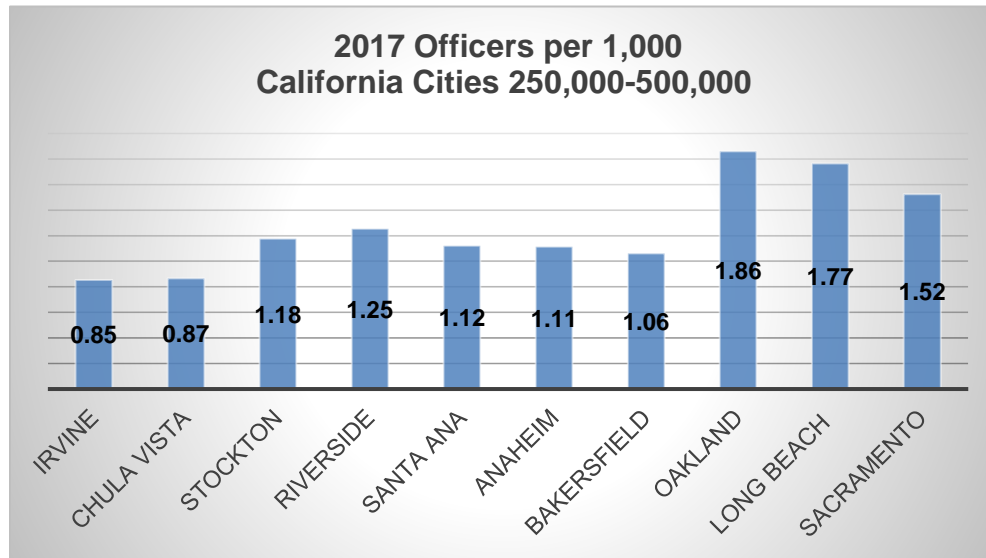
SOURCES: SANDAG; San Diego County and Cities' Actual Expenditures

Figure 11: California Cities 250,000 – 500,000 Population

2017 California Cities 250,000-500,00 Population				
City	Sworn Officers per 1,000 population	Sworn Officers	2016 Population	FY 17/18 Police Budget
Irvine	0.85	228	267,086	\$81,687,024
Chula Vista	0.87	232	267,917	\$53,331,216
Stockton	1.18	377	320,554	\$127,391,861
Riverside	1.25	410	326,792	\$111,700,000
Santa Ana	1.12	383	341,341	\$125,953,794
Anaheim	1.11	399	358,546	\$154,783,443
Bakersfield	1.06	407	383,512	\$89,017,942
Oakland	1.86	792	426,074	\$291,024,081
Long Beach	1.77	848	480,173	\$241,838,594
Sacramento	1.52	751	493,025	\$132,238,944

Source: California Department of Finance and City Adopted Budgets

Figure 12: Officers per 1,000 Population/California Cities 250,000 – 500,000 Population



Source: California Department of Finance and City Adopted Budgets

Policing a Growing and Vibrant City

Chula Vista is at the epicenter of a mega-economic region which is exploding in growth. According to the City’s Planning Department, population is anticipated to grow to around 350,000 in 2035. Chula Vista’s growth strategy includes increasing density, attracting more tourism, creating a university district and securing more commercial activity. Among significant plans in the works are the Bayfront development, the completion of the Millennia project with large commercial development, a university district and more housing. While these projects will add to the quality of life in Chula Vista, they will also strain CVPD service capacity.

Based on questions and feedback from community meetings, there is also increasing public support for some type of police facility in the east section of the City. Police administrators have considered ways to provide expanded service to the eastern sectors, however, CVPD does not currently have the personnel to staff a second facility. Furthermore, the bay front tourism district will require additional staff, such as a bike team, and a small storefront facility; neither of which are currently accounted for in projected budgets.

Concurrent to this, Chula Vista is considering changes to marijuana regulation. Regulating any segment of the cannabis industry will be challenging, especially considering the black market. The purpose of this report is not to analyze the potential impact of cannabis regulation other than to note that CVPD does not currently have the capacity to regulate any segment of the cannabis industry. Should the cannabis industry become legal and regulated in Chula Vista, CVPD would need additional staffing, as would the City Attorney’s office (such as a community prosecution unit) to be effective and preserve the quality of life in Chula Vista.

The Future of CVPD

- *Catch Up* – What reasonable performance outcomes, staffing levels and budget are required to restore CVPD to its historic public safety service capacity and meet the City’s contemporary public safety needs?
- *Keep Up* – Once the CVPD is caught up, what levels of resources and budget are required to keep up the level of service in the short term?
- *Moving Forward* – What levels of resources and budget are required to sustain the level of public safety service through projected build-out and beyond?

Catching Up

The CVPD management team agrees that restoration of service capacity, or catching up to peer agencies’ staffing levels, is a reasonable goal. This recommendation is supported by workload measures and areas of service concerns previously outlined.

Catching Up - Phase 1 (1.01 Officers per 1,000 Population):

- Catch up phase timeline – Immediate
- Restore capacity to be tied for last place in sworn staffing ratio within the county
 - CVPD has the lowest Sworn Officers per 1,000 Population staffing ratio in the County and the second lowest ratio for comparable cities in the State. Carlsbad PD’s current ratio is 1.01 officers per 1,000 residents. Staff considers this ratio the minimum acceptable staffing ratio to enable CVPD to restore capacity.
- 2006 was the last time CVPD conducted a community survey to better understand community needs and expectations of service. CVPD should identify and seek funding for a community survey as soon as possible with the results incorporated into CVPD’s deployment strategy.
- While sworn staff are important, increasing support staff will be critical going forward as well
 - In 2007, CVPD’s civilian to sworn staffing levels was .45 civilians for each sworn position
 - CVPD’s 2017 civilian to sworn staffing level is .40 civilians for each sworn position
 - As a rough gauge, .40 civilian positions should be considered for each sworn position going forward. This lower ratio considers streamlining and use of technology to maximize efficiencies.
 - Some critical positions include (not in order of priority):
 - Civilian Communications Center Manager

- Civilian Jail Manager
- Ten Police Dispatchers
- 1 Police Dispatch Supervisor
- 1 Police Technology Specialist
- Civilian support for Homeless Outreach Team
- Add Community Service Officers as necessary
- Add Records Specialists as necessary
- Add Investigative Aids as necessary
- Add Digital Evidence Specialists as necessary

Keeping Up - Phase 2 (1.12 Officers per 1,000 Population):

- CVPD’s staffing ratio in 2007 was 1.12 Officers per 1,000 Population and was CVPD’s high water mark for sworn and civilian staffing. CVPD’s capacity to deliver public safety service was higher than exists today. Staff considers this to be reasonable goal to restore staffing to the Department’s pre-recessionary level and keep up with short term growth
- Keep up phase timeline: 2-5 years
- This ratio will allow CVPD to keep pace with short term growth until the early phases of major developments like Millennia, the Bayfront and the University district are completed
- Keep pace with technology
 - Utilize technology to make staff more efficient
 - Smart Phones / Apps
 - e-Citations
 - Maximize automation
 - Focus on Smart City initiatives
- Continue to be creative and innovative regarding best practices in policing
 - Plan how to effectively police the university and tourist districts when they as they are developed
 - Plan how to effectively regulate and mitigate the negative impacts of the cannabis industry (regulated or unregulated)

Moving Forward – Phase 3 (1.29 Officers per 1,000 Population):

- **Phase 3 (1.29 Officers per 1,000 Population):** According to the SANDAG public safety report, the County-wide average staffing ratio is 1.29. Staff considers this to be a “reach” goal to not only restore services to pre-recessionary levels, but to expand key public safety services to meet the demands of a dynamic and growing city. This goal considers a vibrant water front, a high-tech Millenia district and an established University district. Examples of enhanced services include significantly expanding the Homeless Outreach Team, School Resource Officer Unit, Traffic Division, Community Relations and Crime Prevention Unit, Communication’s Center, and Police Technology Unit among others.
- Moving Forward phase timeline – Years 6-17 (build-out)
- Plan for change
 - Leverage Smart Cities and technology initiatives
 - Marijuana/cannabis regulation (legal or illegal)
 - Autonomous vehicles and mass transit
 - Evolving role of police in society
- Plan for Build-out
 - 2035 (est.)
 - 350,000 population (est.)
 - 50+ square miles
 - Increased density
 - Increased traffic
 - More students
 - Bayfront, Millennia and University districts near completion
 - Staff for eastern storefront or mini-substation
 - Small staff and bike team for storefront in the bay area tourist/hotel/residential district
- Community prosecution unit
 - City Attorney’s office to aid CVPD enforcement efforts with a Community Prosecution Team

- Stronger enforcement and prosecution of quality of life issues (collaboration between City Attorney’s office and CVPD)
- There is currently no capacity to effectively enforce criminal municipal codes
 - Enhanced regulatory structures in SIU to regulate and enforce cannabis industry

Projected Staffing

Figure 13: Projected CVPD Staffing Ratios Fiscal Year 2019 – 2035

Projected Staffing Ratios Fiscal Year 2019-2035																
Fiscal Year	Estimated Population	Phase 1 = 1.01 Officers per 1,000 Population					Phase 2 = 1.12 Officers per 1,000 Population					Phase 3 = 1.29 Officers per 1,000 Population				
		Phase 1 Sworn Staffing 1.01	Phase 1 Added Sworn	Phase 1 Civilian staffing	Phase 1 Added Civilian	Phase 1 Cost Sworn and Civilian	Phase 2 Sworn Staffing 1.12	Phase 2 Added Sworn	Phase 2 Civilian Staffing	Phase 2 Added Civilian	Phase 2 Cost Sworn and Civilian	Phase 3 Sworn Staffing 1.29	Phase 3 Added Sworn	Phase 3 Civilian Staffing	Phase 3 Added Civilian	Tier 3 Cost Sworn and Civilian
17/18	267,917	232		91												
18/19	272,204	275	43	110	19	\$67,356,799	305	73	122	31	\$74,692,688	351	119	140	49	\$86,029,971
19/20	276,559	279	4	112	2	\$68,434,507	310	5	124	2	\$75,887,771	357	6	143	2	\$87,406,450
20/21	280,984	284	4	114	2	\$69,529,460	315	5	126	2	\$77,101,975	362	6	145	2	\$88,804,953
21/22	285,480	288	5	115	2	\$70,641,931	320	5	128	2	\$78,335,607	368	6	147	2	\$90,225,833
22/23	290,047	293	5	117	2	\$71,772,202	325	5	130	2	\$79,588,976	374	6	150	2	\$91,669,446
23/24	294,688	298	5	119	2	\$72,920,557	330	5	132	2	\$80,862,400	380	6	152	2	\$93,136,157
24/25	299,403	302	5	121	2	\$74,087,286	335	5	134	2	\$82,156,198	386	6	154	2	\$94,626,335
25/26	304,194	307	5	123	2	\$75,272,682	341	5	136	2	\$83,470,697	392	6	157	2	\$96,140,357
26/27	309,061	312	5	125	2	\$76,477,045	346	5	138	2	\$84,806,229	399	6	159	3	\$97,678,608
27/28	314,006	317	5	127	2	\$77,700,678	352	6	141	2	\$86,163,128	405	6	162	3	\$99,241,460
28/29	319,030	322	5	129	2	\$78,943,889	357	6	143	2	\$87,541,738	412	6	165	3	\$100,829,324
29/30	324,134	327	5	131	2	\$80,206,991	363	6	145	2	\$88,942,406	418	7	167	3	\$102,442,593
30/31	329,320	333	5	133	2	\$81,490,303	369	6	148	2	\$90,365,485	425	7	170	3	\$104,081,674
31/32	334,589	338	5	135	2	\$82,794,148	375	6	150	2	\$91,811,332	432	7	173	3	\$105,746,981
32/33	339,943	343	5	137	2	\$84,118,854	381	6	152	2	\$93,280,314	439	7	175	3	\$107,438,933
33/34	345,382	349	5	140	2	\$85,464,756	387	6	155	2	\$94,772,799	446	7	178	3	\$109,157,956
34/35	350,908	354	6	142	2	\$86,832,192	393	6	157	2	\$96,289,163	453	7	181	3	\$110,904,483

Desired Public Safety Outcomes

CVPD staff understand the fiscal outlook and limitations of the City and the serious financial implications of the staffing needs identified and outlined in this report. Staff also understand CVPD strengths, weaknesses and vulnerabilities and the negative consequences of not being transparent with policy makers regarding the current state of CVPD’s operational capacity. Of even greater concern, staff are concerned about CVPD’s ability to serve Chula Vista’s needs going forward through the City’s build-out.

The top ten desired public safety service outcomes of this report are basic:

1. Improve Priority 1 and Priority 2 response times to consistently meet and surpass GMOC Thresholds
2. Expand the Homeless Outreach Team to help address the City’s most pressing social needs
3. Improve Community Patrol staffing to provide for 40% pro-active time. This will result in an organization that is pro-active vs. reactive to crime and disorder trends
4. Improve Communications Center staffing and operations to improve first line contact and service processing with the public

5. Improve Investigative capacity and follow up in all major investigative units to maximize successful case resolution and provide better customer service to victims
6. Improve the Traffic Division's operational footprint to pro-actively respond to traffic related problems and reduce traffic related deaths and injuries
7. Significantly expand the School Resource Officer Unit to more adequately serve the needs of growing school districts and the youth population of Chula Vista
8. Expand use of technology to streamline operations and support intelligence led policing practices
9. Expand the Department's Community Policing unit and community outreach efforts to foster stronger community ties
10. Provide for the expansion of services to the eastern section of the City by staffing a storefront or small substation with full time staff during regular business hours. A similar storefront would be planned for the Bayfront tourist district to support a reconstituted bike team to patrol the tourist district

Conclusion

Due to unavoidable cuts taken during the recessionary period, coupled with steady growth, CVPD has lost significant capacity. By many measures, CVPD is still a successful police department, but it has serious organizational vulnerabilities as well. CVPD has significantly reduced staffing in both the sworn and civilian arenas, which has reduced the quality of public safety outcomes and degraded the Department's capacity to serve a vibrant, diverse and growing community. At the same time, the nature of crime fighting has evolved, especially as it pertains to non-violent crime, drug legalization and technology.

Looking forward, CVPD must grow and evolve to meet the changing demands for police service in Chula Vista. There is no shortage of ideas on how CVPD can improve. As outlined in this report, many efficiencies have already been implemented. In the spirit of Continuous Improvement, CVPD will continue to scrutinize and refine operations to maximize resources and improve service. However, there are real-world limits to efficiencies as they relate to operational capacity. We must explore ways to add staffing to meet contemporary and future demands for service.

Proposed 5 Year Staffing Allocation Strategy

- FY 18/19 (43 Sworn, 19 Civilian)
 - 24 Officers – Community Patrol
 - 4 Officers – Homeless Outreach Team
 - 4 Traffic Officers (3 motors, 1 DUI)
 - 4 School Resource Officers
 - 7 Detectives (Agents) to Criminal Investigations
 - 2 Civilian Background Investigators initially to boost hiring capacity
 - 1 Civilian Communications Center Manager
 - 1 Police Dispatch Supervisor
 - 10 Police Dispatchers (civilian)
 - 1 Community Relations Specialist
 - 1 Police Technology Specialist
 - 1 Civilian Jail Manager (reassign Police Lieutenant to oversee Traffic Division)
 - 2 Community Service Officers to Patrol
- FY 19/20 (4 Sworn, 2 Civilian)
 - 3 School Resource Officers
 - 1 School Resource Agent
 - 2 Community Service Officers to Patrol (civilian)
- FY 20/21 (4 Sworn, 2 Civilian)
 - 2 Officers – Community Patrol
 - 1 School Resource Officer
 - 1 School Resource Sergeant
 - 1 Public Information Officer / Social Media Strategist (civilian)
 - 1 Parking Control/Vehicle Abatement Officer (civilian)
- FY 21/22 (5 Sworn, 2 Civilian)
 - 2 Officers – Community Patrol
 - 1 School Resource Officer
 - 1 School Resource Agent
 - 1 Detective (Agent) to CID
 - 1 Public Safety Analyst (civilian)
 - 1 Community Service officer (DEU) (civilian)
- FY 22/23 (5 Sworn, 2 Civilian)
 - 2 Street Team / Gang Enforcement Officers
 - 3 Detectives (Agents) to CID
 - 2 Community Service Officers to CID

Chula Vista Fire Department

The mission of the Chula Vista Fire Department (CVFD) is to protect life, environment and property. Carrying out that mission is very complex and becomes more complex with each passing year. This staffing report evaluates CVFD core capabilities and services and compares them against outcome based performance metrics that are supported by appropriate regulations, industry standards, and best practices. This two-part process will allow the City, the Fire Department, and the community to identify necessary resources to meet these expectations and ensure optimal utilization of the resources provided. The Fire Department is fortunate to serve a community that recognizes the importance of public safety in maintaining the City's Strategic goals.

The City's budget, including the Fire Department budget, will continue to be developed with a focus on providing core services to residents in the face of continued funding challenges. This will require more effort toward establishing and maintaining business and strategic plans focusing on continuous improvement to assist in maintaining those core services.

As the City's population grows, there will be a subsequent increase in demand for Fire and Emergency services (call volume). Urban planning has and continues to move toward higher housing densities and it is critical for the Fire Department to support the additional population as well as prepare for wildland fire events, natural disasters, and the present threat of active shooter incidents and terrorism. These challenges will require a shift in fire apparatus and equipment design and purchasing; and a change to deployment of resources and strategies for response capability.

Background

Fire departments across the nation are being challenged by budget constraints, rising call volume, staffing deficiencies, security issues and the overall expectation to do more with the same or even less funding. Effectively managing a fire department requires an understanding and ability to demonstrate how changes to resources will affect community outcomes. It is imperative that fire department, city, and community leaders become familiar with how fire department resource deployment in the community affects community outcomes. Community outcomes refers to three important areas: civilian injury and death; firefighter injury and death; and property and environmental loss. If fire department resources (personnel, apparatus, and facilities) are deployed to match the risk levels inherent to the hazards in the community, the community will be less vulnerable to negative outcomes in all three areas.

Data plays an important role in isolating core capabilities and services in terms of how the fire department performs. To clearly see trends in performance, five years of data were analyzed and configured for ease of consumption and understanding.

Department Overview

The Chula Vista Fire Department began in the early 1900s as a group of 17 volunteers with a hand-drawn soda and acid cart pulled to a fire by anyone available. Today, the Chula Vista Fire Department has grown

into a highly professional, trained force of over 140 men and women. In 1919, the first fire station was opened at 316 Third Avenue.

Just two years later, the station moved to City Hall, then located at 292 Third Avenue, and the first full-time paid firefighter was hired; thus, establishing the Chula Vista Fire Department on May 21, 1921. In 1948, the Department purchased a new fire engine and moved into a new station at 447 F Street. This is the current site of Fire Station 1 and serves as a Battalion Headquarters.

In 1986, the City of Chula Vista annexed the Montgomery Fire Protection District now located in the southwestern region of the City at 391 Oxford Street. In 1991, temporary Fire Station 6 opened for service at 975 Lane Avenue in Eastlake, and in 2005, was replaced by the current fire station located at 605 Mount Miguel Road. Station 6 now serves the communities of Rolling Hills Ranch, San Miguel Ranch, Bonita Long Canyon, Eastlake Shores, and Bella Lago. The fire station houses a brush engine and has the capacity to house a paramedic ambulance company if needed in the future.

On June 23, 2001, Fire Station 3 was re-located to 1410 Brandywine Avenue to serve the area of Sunbow. Station 3 currently houses US&R 53; the City's rescue vehicle. The former building at 266 East Oneida Street, was shuttered until the Spring of 2006, when it was re-opened as Fire Station 9, which houses one engine company and serves the communities of Castle Park and Otay. This station provides an additional key engine company to supplement the service provided by the busiest Fire Stations, which are Station 1 and Station 5.

Station 7, located near Otay Ranch High School, was opened on September 11, 2003, with a statue and special memorial to the 343 firefighters who perished at 9/11. Station 7 provides service for the Otay Ranch community and is housed with a truck and engine company. Station 7 is the Battalion Headquarters for the eastern part of the City.

Station 8 opened for service in December 2006, and is the newest station in the system, serving the Eastlake communities for The Woods, Eastlake Vistas, Eastlake Greens, and Eastlake Trails. This station is located at 1180 Woods Drive, and houses one engine company.

In March of 2008, the Fire Department contracted fire and emergency medical dispatch services with the City of San Diego Fire Rescue Department. With this contract came upgraded response capabilities including Automatic Vehicle Location and enhanced mutual aid capabilities such as boundary drops.

Currently, the Chula Vista Fire Department's nine stations respond to 20,000 calls for service annually, while serving a population of 267,000, covering an area over 52 square miles. Stations are staffed 7 days a week, 24 hours per day with a total staffing of 39 personnel including two battalion chiefs. Over the past five years, calls for service have risen on average 5% annually.

Figure 14: Fire Department Calls for Service 2012 - 2016

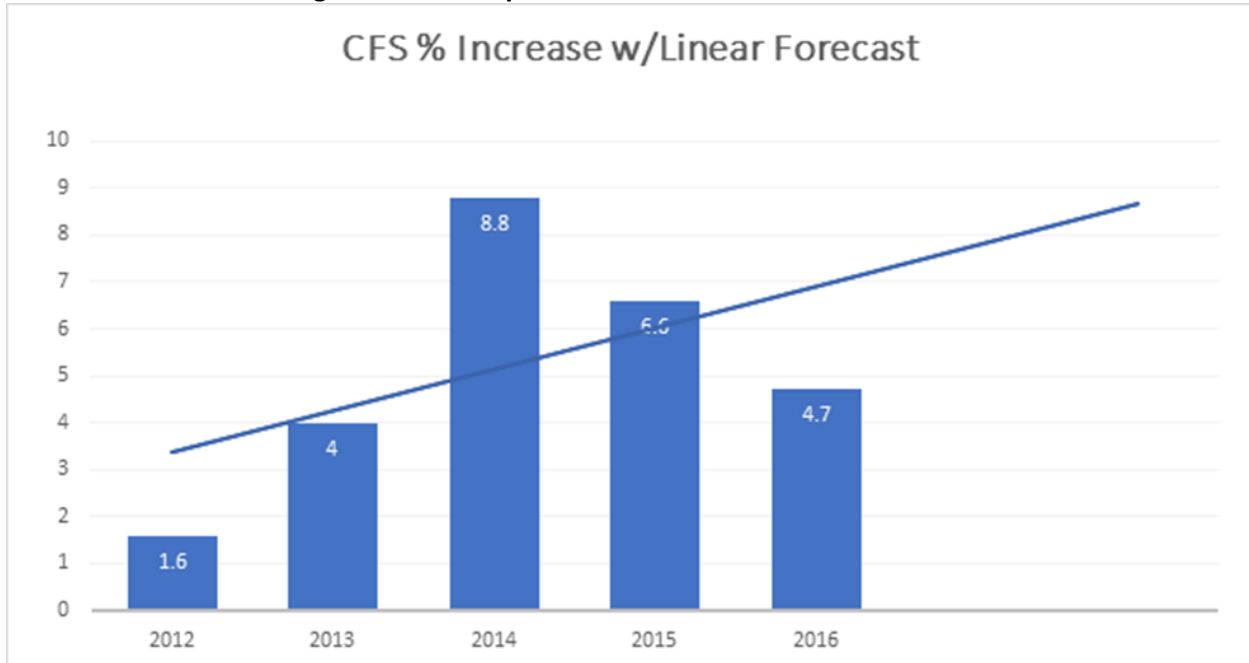


Figure 15: Fire Department Calls for Service 2016 by Station/Type

2016 CFS by Incident Type by Station	Incident Type								Total
	Rescue & EMS	Good Intent	Service Calls	False Alarm & False Call	Fires	Hazardous Conditions	Overpressure Rupture, Explosion, Overheat - no fire	Special Incident Type	
Station 1	3913	1,066	240	163	91	71	3	1	5,548
Station 2	931	290	89	53	32	27		1	1,423
Station 3	763	209	47	58	19	16	1		1,113
Station 4	832	206	35	50	18	15	2		1,158
Station 5	3224	919	130	149	86	67			4,575
Station 6	538	119	65	37	18	15		1	793
Station 7	1043	231	82	90	17	23	1		1,487
Station 8	720	173	37	74	18	18		1	1,041
Station 9	1219	285	62	32	35	28	2		1,663
Outside CV	390	546	20	18	81	34	1		1,090
Total	13573	4,044	807	724	415	314	10	4	19,891

Protection of life is critical and response must be fast and accurate. Chula Vista Fire Department is dispatched for all 9-1-1 calls for service using state of the art automatic vehicle location (AVL) technology that identifies the closest and most appropriate emergency resource type for immediate dispatch. This

technology allows for residents to receive the service from the nearest location within the most rapid time.

In addition to providing emergency medical response and firefighting services to the community through the Operations Division, the Fire Department also consists of the Training and Fire Prevention Divisions. The Training Division provides training in firefighting and rescue skills for Department personnel as well as for personnel from other agencies in the region. These training services ensure that Fire Department personnel meet the necessary training requirements to deliver quality service to the community within the proper safety standards. The Chula Vista Fire Department Training Facility is located at 850 Paseo Ranchero adjacent to Fire Station 4.

The Fire Prevention Division provides comprehensive fire safety engineering plan review and inspection services so that new development and existing businesses are in compliance with the latest fire regulations ensuring the safety of the community. The Fire Prevention Division also provides 24-hour response to origin and cause fire investigation services for significant incidents. In addition, the Chula Vista Fire Department provides fire and life safety education and outreach to City residents, including annual community Fire Prevention Week activities.

In the event of a community disaster or emergency, the Chula Vista Fire Department operates an Emergency Operations Center (EOC). The EOC is staffed by emergency personnel and trained City staff members with the purpose of supporting residents during disaster by focusing on life safety, evacuation needs, as well as public utilities and infrastructure maintenance.

Citizen volunteer opportunities are also available with the Chula Vista Fire Department including the Chula Vista Firefighters Foundation, Chula Vista Fire Explorer Program, Citizens Adversity Support Team (CAST), and Citizens Emergency Response Team (CERT).

The Chula Vista Fire Department holds a rich tradition of service since its establishment in 1921. The Department has successfully advanced major changes over the years from the implementation of breathing apparatus and other safety equipment, to the establishment of Emergency Medical Services, to land annexations and Department expansion.

Community Risk Assessment

Prior to 1970, the focus of fire department risk assessment was the identification of fire hazards and response force to mitigate the emergency. The EMS system in California began its development with the passage of the Wedworth-Townsend Pilot Paramedic Act. The first paramedic program was formed in 1970, in the County of Los Angeles and was memorialized by the television show, *Emergency!* Initially, paramedic programs began forming throughout the State without regard to EMS system planning. Later, in 1981, the EMS Act created the EMS Authority and now as the lead agency, provides the foundation for EMS in the State.

These efforts marked the start of efficiencies regarding the mission and purpose of the Fire Service. Instead of the Fire Service focusing on a single mission, it was asked to focus on much more beginning

with EMS response. Efficiencies were created when the Fire Service industry recognized that firefighters could be trained to fight fires, and they could also be trained to provide lifesaving medical care. It is often asked of firefighters, “Why does the fire department respond to people with medical problems?” The answer is efficiencies in service since the same number of firefighters are *already* pre-positioned, and required to be on duty. The question prior to 1970 was, “Why aren’t firefighters trained to respond to EMS calls for service?”

From that point forward the Fire Service began taking on more and more roles and responsibilities and have become all risk, all hazard, first responders. Among other things, Firefighters are responsible for responding to:

- Rescues of all types
- Hazardous materials
- Mutual aid
- Collapses
- Natural disaster events
- Flooding
- Downed wires
- Members of the public who have fallen and are unable to get up
- Strange odors
- Malfunctioning alarms
- Explosive ordinance devices
- Active shooter events and terrorism
- Abandoned babies
- Safe refuge for teens
- Swarming bees
- Snake removals

Core Capabilities & Services

Fire department core capabilities and services are categorized into Fire Operations and Fire Prevention.

Fire Operations

The Fire Department is an all hazard, full service response organization. The Fire Department is no longer single focused on extinguishing fires. As this mission has evolved, the Chula Vista Fire Department has categorized these different core capabilities and services in the follow ways to ensure efficiency and effectiveness:

Fire Response: The Chula Vista Fire Department provides fire suppression services within the City as well as response to requests for service from adjacent agencies. Fire suppression services are provided from nine fire stations distributed throughout the community. Department members are trained to California State Fire Marshal Firefighter I & II standards. Fire suppression services include fires occurring in single and multifamily residences, commercial and high-rise buildings, vehicles, and wildland or brush. The primary goal is to extinguish fires to save lives and reduce property loss.

Figure 16: Chula Vista Fire Station Locations

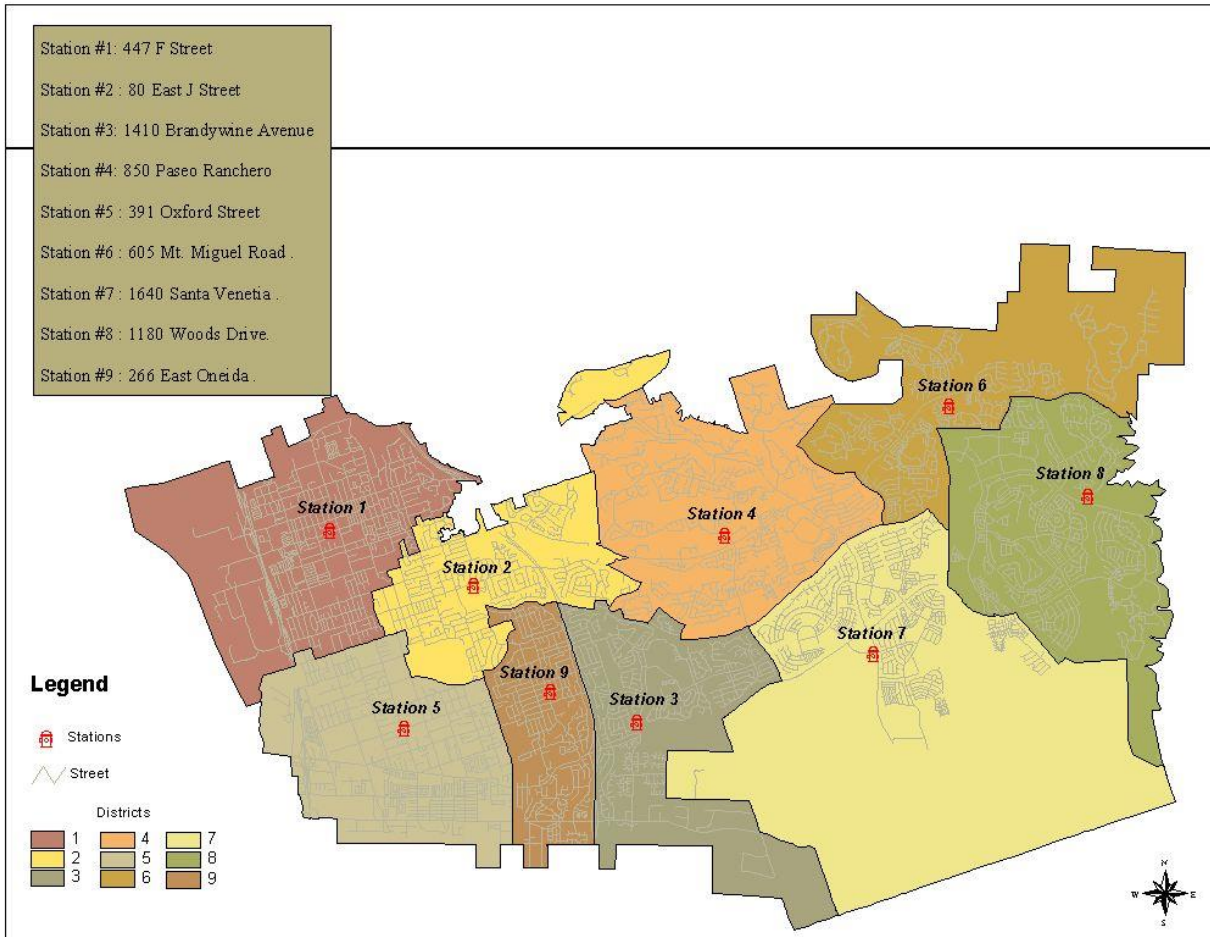


Figure 17: 2016 Fire Response Incident by Type

2016 Fire Response Incident Type	CFS
Passenger vehicle fire	75
Building fire	67
Outside rubbish, trash or waste fire	57
Cooking fire, confined to container	45
Outside rubbish fire, other	35
Brush or brush-and-grass mixture fire	29
Dumpster or other outside trash receptacle fire	25
Natural vegetation fire, Other	12
Forest, woods or wildland fire	10
Grass fire	10
Fire, Other	9
Special outside fire, Other	8
Trash or rubbish fire, contained	7
Mobile property (vehicle) fire, other	5
Camper or recreational vehicle (RV) fire	4
Fires in structure other than in a building	3
Road freight or transport vehicle fire	3
Fire in mobile prop used as a fixed residence	2
Fire in motor home, camper, recreational vehicle	2
Outside storage fire	2
Outside equipment fire	2
Water vehicle fire	1
Garbage dump or sanitary landfill fire	1
Outside gas or vapor combustion explosion	1
Total	415

EMS Response: The Chula Vista Fire Department provides emergency medical services within the City as well as response to requests for service from adjacent agencies. EMS services are provided from nine fire stations distributed throughout the city with ambulance transport services contracted with American Medical Response. Department members are trained to California State Emergency Medical Technician and Paramedic levels. EMS services include treating the sick and injured with two levels of medical care: basic life support, and advanced life support provided by emergency medical technicians and paramedic firefighters. The primary goal is to provide medical care and transportation for the sick and injured.

Figure 18: Emergency Medical Service Calls for Service

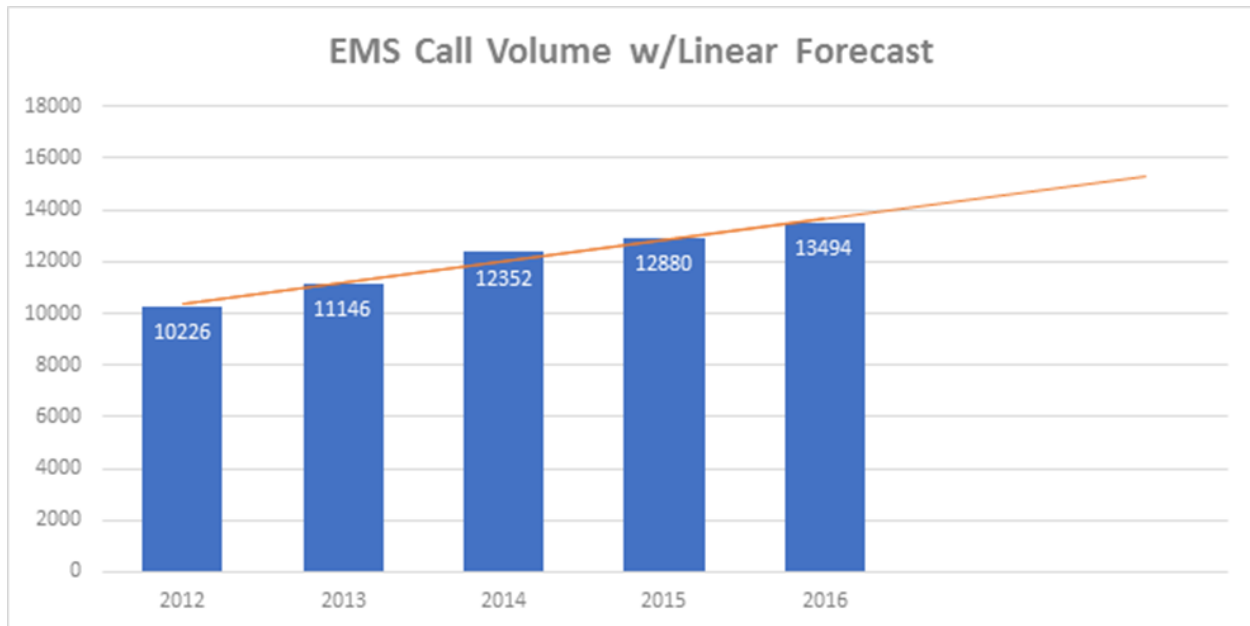


Figure 19: 2016 Emergency Medical Services Response by Incident Type

2016 EMS Response Incident Type	CFS
EMS - Other	5,346
EMS - ALOC, Diabetes, Seizure, OD, Poisoning	2,528
EMS - Minor Slip or Fall	1,353
EMS - Respiratory	1,183
EMS - Cardiac	1,164
EMS - Trauma (Major Fall, GSW, Stabbing, etc)	725
Motor vehicle accident with injuries	701
EMS - CVA, TIA	205
Motor vehicle/pedestrian accident (MV Ped)	83
EMS - Bites, Stings, Allergic RXN	72
EMS - OB-GYN	63
Medical assist, assist EMS crew	47
Medical assist, facility or AMR	22
Medical assist, facility, transfer patient	1
Total	13,493

Rescue Response: The Chula Vista Fire Department provides rescue services within the City as well as response to requests for service from adjacent agencies. Department members are trained to perform at the technician level for confined space rescues, trench/excavation collapse rescues, high and low angle rope rescues, vehicle entrapments, and structural collapses. The primary goal is to remove and treat trapped, sick, and/or injured victims from a hazardous environment.

Figure 20: 2016 Rescue Response by Incident Type

2016 Rescue Response Incident Type	CFS
Extrication of victim(s) from vehicle	22
Lock-in	17
Removal of victim(s) from stalled elevator	14
Extrication, rescue, Other	11
Extrication of victim(s) from building/structure	5
Search for lost person on land	2
Search for lost person in water	2
Extrication of victim(s) from machinery	2
Rescue or EMS standby	2
Motor vehicle accident with no injuries	1
Swimming/recreational water areas rescue	1
Surf rescue	1
Total	80

Hazardous Materials Response: The Chula Vista Fire Department provides hazardous materials response services within the City as well as response to requests for service from adjacent agencies. Department members are trained to perform at the California State Fire Marshal Hazardous Materials First Responder Operational level. Hazardous materials response includes responding to and mitigating known and unknown substance spills or releases that create a risk to the community.

Figure 21: 2016 Hazardous Materials Response by Incident Type

2016 Hazardous Materials Response Incident Type	CFS
Vehicle accident, general cleanup	105
Electrical wiring/equipment problem, Other	36
Gas leak (natural gas or LPG)	32
Power line down	25
Accident, potential accident, Other	18
Hazardous condition, Other	17
Arcing, shorted electrical equipment	16
Carbon monoxide incident	13
Building or structure weakened or collapsed	10
Gasoline or other flammable spill	9
Heat from short circuit (wiring), defective/worn	9
Overheated motor	6
Chemical hazard (no spill or leak)	4
Oil or other combustible liquid spill	3
Chemical spill or leak	3
Combustible/flammable gas/liquid condition, Other	2
Breakdown of light ballast	2
Aircraft standby	2
Refrigeration leak	1
Biological hazard, confirmed or suspected	1
Total	314

Incident Management: The Chula Vista Fire Department provides incident management services within the City as well as response to requests for service from adjacent agencies. In all emergency incidents, history has proven that competent and structured incident management allows for efficient and effective mitigation.

Resource Deployment: CVFD provides resource deployment services within the City as well as response to requests for service from adjacent agencies. No matter how well staffed, equipped, or funded a fire department may be, there will always be an emergency incident that will overwhelm its available resources. For decades, the fire service has relied on mutual aid from neighboring departments. This is done on a grand scale in the State of California under the Master Mutual Aid Agreement, where the California Fire Service shares its firefighters and firefighting equipment throughout the State and the Country when needed. With this, a great deal of effort is required by the Chula Vista Fire Department to properly manage deployment of personnel and equipment for accountability and personnel safety.

Disaster Management: The Chula Vista Fire Department provides disaster management services, disaster preparedness, and emergency coordination to the community and City Departments so they can plan, respond, mitigate, and recover from natural and human caused disasters.

Fire Operations Identified Service Gaps

Within the core capabilities and services listed above, the Chula Vista Fire Department has identified several areas requiring immediate improvement. From the local level to the state, country, and around the globe, new and emerging threats are becoming more common and require a special response capability that the Chula Vista Fire Department currently does not possess.

EOC functionality: The City of Chula Vista can standup an Emergency Operations Center designed to provide disaster preparedness and emergency coordination to the community and City Departments so they can plan, respond, mitigate, and recover from natural and human-caused disasters. However, the current location has diminished that core capability significantly by the limited ability to communicate with operational resources. Located underground in the basement of Building C at City Hall, this location has proven to nearly eliminate radio and cell phone communications systems. In every instance of emergency response, communications are the backbone for successful mitigation. In addition, the City is capable of standing up only one EOC and currently does not have a viable secondary or backup location.

Active shooter: This type of incident requires special equipment and training to produce an efficient and effective response while providing the safest profile for fire department members. Across the country the fire service has recognized the need for firefighters to participate in these types of emergencies and have developed a solution. Rescue Task Forces (RTF) are firefighters and law enforcement officers that assemble into teams to move into the immediate area of an active shooter to quickly treat and remove victims to a safe area for further treatment and rapid transport. Due to cost, the Fire Department has not been able to establish this capability.

Terrorism preparedness: Similar to the active shooter capability, there is an increasing need to prepare for potential incidents of terrorism in our own communities. It has been demonstrated on multiple occasions that terrorism can strike in communities not typically thought of as targets. Chula Vista Fire Department must be equipped, trained, and prepared to respond to acts of terrorism.

Fire Prevention

The purpose of the Fire Prevention Division is to build, enhance, and maintain safe communities through excellence in deployment and execution of our community risk reduction education, fire code inspection, fire safety engineering, and fire investigation programs. The Fire Prevention Division is the focal point of the Fire Department's efforts to prevent or minimize fire losses in our community. The Prevention Division is responsible for providing services aimed at reducing the risk of fires, loss of life and injuries to our community, including residents, businesses, and first responders. While much of the Prevention Division's focus is aimed at proactive efforts, another critical role of the Prevention Division is to perform fire investigations and to help prosecute persons who intentionally set fires. All Fire Inspector/Investigators receive training and/or certification in fire inspection, plan review, and fire investigation, in accordance with requirements under the California State Fire Marshal Office, International Code Council, and National Association of Fire Investigators. The Fire Prevention Division is charged with the following core capabilities and services.

Fire Code Inspections: Fire Inspector/Investigators conduct inspections in existing businesses to monitor compliance with all applicable fire and life safety regulations. The primary goal is to ensure that local businesses operate in a manner that ensures safety for the community.

Fire Safety Engineering: Fire Inspector/Investigators provide technical assistance, plan review, and new construction inspection services to developers, contractors, and property/business owners. The primary goal is to ensure that new businesses are built safely and expeditiously in compliance with fire and life safety regulations.

Fire Investigation: Fire Inspector/Investigators provide origin and cause investigation services to property owners, law enforcement entities, and insurance companies. The primary goal is to ensure stakeholders have timely and accurate information concerning fire investigation cases, to successfully prosecute arsonists, to deter future criminal acts, to provide recommendations for product recall, and to proffer new codes to influence future safety regulations.

Community Risk Reduction Education: Fire Inspector/Investigators provide education and training services to our community. The primary goal is to ensure the community is engaged in prevention of loss of life, loss of property, and minimizing injury.

Fire Prevention Identified Service Gaps

Fire Investigations: Currently, Fire Inspector/Investigators perform fire investigations in accordance with a departmental standard operating guideline (SOG). This SOG limits the total number of investigations performed, based upon severity, to match the current staffing level. However, the current staffing level leaves a significant gap between the target and current state. Specifically, Fire Prevention performs fire investigations for approximately 9% of fire related calls for service (e.g., commercial, residential, vehicle, vegetation, rubbish, and trash fires). When Fire Prevention doesn't perform the investigation, the responsibility is left to the responding firefighters.

Multi-family Fire Inspections: The Health and Safety Code (HSC 17921 & 13146.2) requires that fire agencies perform annual fire and life safety inspections in multi-family structures. This includes inspecting both apartment houses and condominium buildings. Based upon the Fire Prevention Division's current staffing level and workload, fire inspectors are unable to perform all inspections required annually.

Community Risk Reduction Public Education: The Fire Department should expand its proactive public education program. Public outreach is implemented via the Fire Department website, monthly City newsletter, through social media, school and community appearances, and distribution of flyers and banners promoting safety messages. In addition, the Department hosts open house events and does other outreach activities during Fire Prevention Month. Community Risk Reduction Education is a focused approach for engaging the community based upon hazard and risk data. In Chula Vista, our data reflects that we need education programs targeting single- and multi-family residences, businesses, mobile home parks and the elderly and children.

Figure 22: Public Education Target Populations/Locations

Target Category:	Target Number:
Single- and Multi-family Dwelling Units	80,000
60-Year-Old Plus Population	45,000
Children Population	37,000
Public Elementary Schools Students	25,000
Mobile Home Parks	80

Wildland Urban Interface: The City’s approved Multi-Jurisdictional All-hazards Mitigation Plan lists wildfires as the greatest disaster threat facing the community. Throughout the community, there is a significant amount of wildland urban interface (WUI) where residential or commercial properties are contiguous to open space areas. The wildfires in 2003 and 2007 show just how vulnerable areas of the City are to wildland fires. Chula Vista WUI is composed of the following: 1,000 plus acres, among 40 designated open space areas, needing routine inspection along with vegetation management. Newly developed communities are required to create and implement a Fire Department approved Fire Protection Plan (FPP). These FPPs identify new construction features for structures along with detailed planting palates, to build fire safe communities. Lastly, the FPPs are then utilized to develop Community Facility District Budgets. However, there are no identified funding sources to perform requisite WUI vegetation management throughout older parts of the city.

“All-Risk” Service Provider

Today, hazard or risk assessment goes well beyond responding to fires to include medical and other emergencies that bring the fire department focus to that of an “all risk” service provider.

Considering this change, fire service leaders must assess a wide array of hazards, the risk level associated with an adverse event involving those hazards and the necessary resources for response to such an event. The resources (personnel, apparatus, and facilities) needed for the response must consider

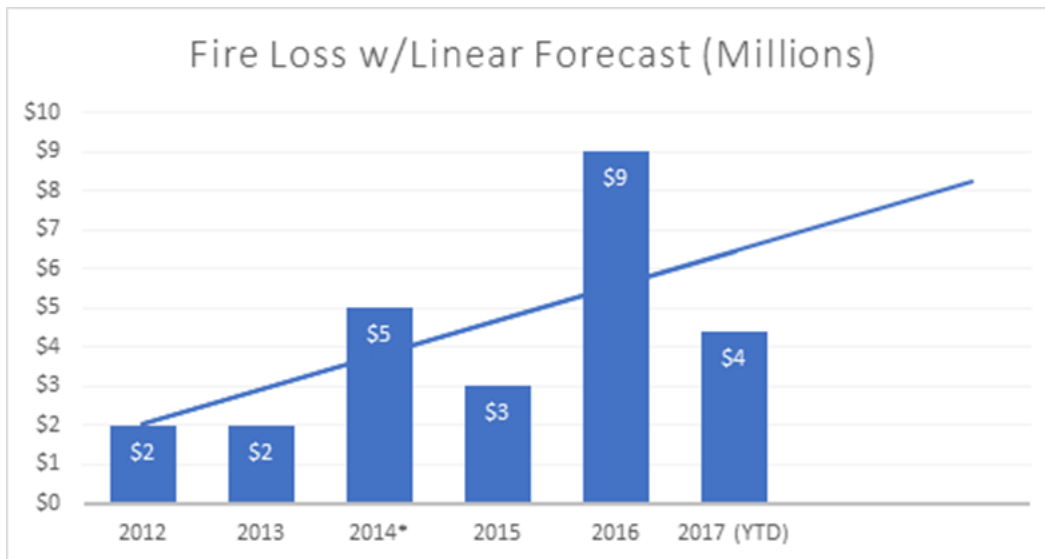
- **Civilian injury and death**
- **Firefighter injury and death**
- **Property loss**

Figure 23: Fatalities and Injuries by Incident Type

Fatalities and Injuries by Incident Type	2012	2013	2014	2015	2016	Total
Fatalities		2		6		8
Aircraft fire				1		1
Brush or brush-and-grass mixture fire				1		1
Building fire		1		2		3
Outside rubbish fire, Other				1		1
Passenger vehicle fire		1				1
Self-propelled motor home or recreational vehicle				1		1
Injuries	10	10	2	3	7	32
Brush or brush-and-grass mixture fire	1					1
Building fire	8	7	2	2	6	25
Camper or recreational vehicle (RV) fire					1	1
Cooking fire, confined to container		1				1
Mobile property (vehicle) fire, Other		1				1
Passenger vehicle fire	1	1				2
Special outside fire, Other				1		1
Total	10	12	2	9	7	40

Community risk assessment begins with identification of the hazards present in the community. Given that a hazard exists in a community, the consequences of an emergency event (e.g., fire) in such a hazard are ultimately determined by the mitigation efforts. The consequences are the results of the combination of the risk level of the hazard, the duration and nature of the event, property loss (e.g., building damage or collapse), personal injury or loss of life, economic losses, any interrupted operations, and damage to the environment. These consequences are generally grouped into four categories.

Figure 24: Fire Loss 2012 - 2017



- **Human impacts** (civilian and firefighter injuries and deaths)
- **Economic impacts** (property loss both direct and indirect effects)
- **Psychological impact** (public confidence)
- **Functional impact** (continuity of operations)

Identifying and Categorizing Community Risks

Community risk level is typically established through an overall profile of the community based on the unique mixture of demographics, socioeconomic factors, occupancy risk, fire management zones, and the level of services currently provided.

Community hazards and associated risks may be divided into 3 categories.

- Life
- Property
- Critical infrastructure

Each of these categories contains hazards and therefore risks relevant to emergency responders.

Figure 25: Community Hazards/Risks Examples

Community Hazards/Risks Examples		
Life	Property	Critical Infrastructure
Population demographics	Construction Date	Utilities
Community socio-economic status-income by type of household (census data)	Building materials	Water
Population distribution	Smoke detectors present	Public health resources
Population density	Building type (high/mid-rise or two story)	Emergency services

The property category is of particular interest to the fire service. Each property or structure in a community can be considered a hazard that carries inherent risks based on occupancy type and fire load. Occupancy risk is a sublevel of property risk and is established through an assessment of the relative risk to life and property resulting from a fire inherent in a specific building/structure or in generic occupancy classes (e.g., high rise residential).

The National Fire Protection Association (*NFPA Fire Protection Handbook*) defines hazard levels of occupancies by types. Each hazard level carries inherent risks.

- **High-Hazard Occupancies**— Schools, hospitals, nursing homes, explosive plants, refineries, high-rise buildings and other high life hazard or large fire potential occupancies.
- **Medium-Hazard Occupancies**— Apartments, offices, mercantile and industrial occupancies not normally requiring extensive rescue by fire fighting forces.
- **Low-Hazard Occupancies**— Single-family dwellings and scattered small business and industrial occupancies.

Growth Management Oversight Commission (GMOC)

The GMOC metric for fire and EMS was developed in the mid-1980s prior to the significant development in eastern Chula Vista. It was and still is intended to ensure the City's core capabilities and services at a minimum, remain what they were prior to the beginning of growth with the development of Eastlake. The Fire Department GMOC response threshold was not developed as, or intended, to take the place of policy recommendations for levels of service provided by the Fire Department.

The GMOC metric was originally to respond to all calls within seven minutes 85% of the time. Many years ago, this metric was reduced to 80%. Once again, the GMOC threshold was not intended as a measurement to impact flashover or dictate public safety outcomes. However, this is an important metric that CVFD strives to meet.

Outcome Based Performance Metrics

Fire department operational performance is a function of three considerations; resource availability/reliability, department capability and overall operational effectiveness.

- Resource Availability/Reliability is the degree to which the resources are ready and available to respond.
- Department Capability is the ability of the resources deployed to manage an incident.
- Operational Effectiveness is the product of availability and capability. It is the outcome achieved by the deployed resources or a measure of the ability to match resources deployed against the risk level to which they are responding.

The probability of any given unit's availability (or unavailability) is one indicator of the Fire Department's response reliability. Response reliability is defined as the probability that the required number of competently prepared staff and properly equipped apparatus will be available when a fire or emergency call is received. As the number of emergency calls per day increases, the probability that a needed piece of apparatus will be busy when a call is received also increases. Consequently, if the right amount of redundancy is not built into the system to ensure timely and adequate response to emergency calls can be maintained, the Department's response reliability decreases. To measure response reliability, all types of calls for service must be considered. Today, EMS calls have an impact on the availability of Fire Department resources and should be considered in the overall evaluation of Department reliability. Response reliability can be determined from historical run data and is typically expressed as a per/company statistic as well as an agency-wide statistic.

Fire Department capability, is a measure of the ability of firefighters to respond, mitigate and recover from each emergency call. This capability often depends on the dispatch time of day, arrival of first responders, and the assembly of an Effective Response Force in relation to the magnitude of the risk event when first responders arrive. For example, upon arrival of fire department personnel, the progress of some fires will be at an early stage and others may already have spread throughout an entire building. Therefore, when determining fire station location, fire service leaders must identify and target a point of

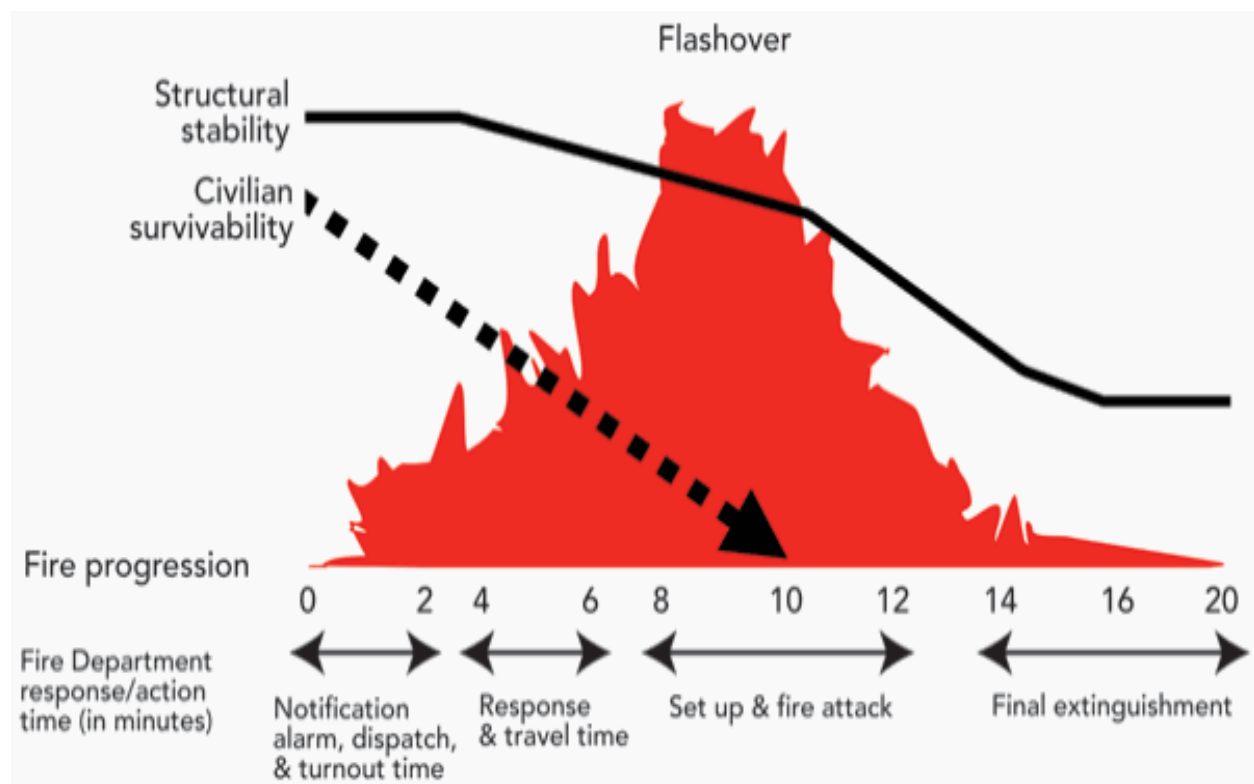
a fire’s growth that marks a significant shift in its threat to life and property. This point is known as “flashover.”

On Scene Risk Escalation

During the growth stages of a fire, flashover is a significant event that causes firefighters to race against the clock with the goal of arriving fast enough to prevent flashover from occurring. Preventing this stage of fire behavior is a factor in establishing fire department resource needs. When flashover occurs, room temperature at the ceiling reaches 1,100 degrees Fahrenheit and combustible materials in a room are heated to their autoignition temperature. In that instant, everything in the room from wall to wall and from floor to ceiling bursts into open flame. This eruption of flame generates a tremendous amount of heat, smoke and pressure with enough force to push the fire through doors and windows and beyond the room of origin.

Flashover is a significant stage of fire growth for several reasons. First, the likelihood of survival and the chance of saving any occupants trapped in the room of origin drops dramatically. Second, flashover creates an exponential increase in the rate of combustion as well as the risk to the health and safety of firefighters. Third, a considerably greater amount of water is needed to extinguish the burning material. Fourth, a greater number of firefighters are required to deploy additional hose streams due to fire spread to different locations in the structure. Finally, science shows that a post flashover fire burns hotter and grows faster as time progresses thus compounding the search and rescue task in the remainder of the structure; again, requiring a greater number of firefighters to mitigate the incident.

Figure 26: Flashover/Fire Progression



The dynamics of fire growth and the associated potential for risk escalation dictate various configurations of fire station locations and firefighter staffing patterns. Understanding fire behavior, particularly flashover, is key to designing an emergency response system so that enough firefighters and equipment are strategically located throughout the community to ensure that the minimum acceptable response force can be assembled to engage in a fire before flashover (or substantial risk escalation) occurs. Therefore, to save lives and limit property damage, firefighters must arrive at the right time, with adequate resources to do the job.

In emergency medical response, there is a similar perspective. The same need to intervene early to stop the progression or escalation of a risk event can be noted in firefighter/EMT and Paramedic response to cardiac or traumatic emergencies. For example, in a heart attack that progresses to a cardiac arrest where a victim becomes pulseless and stops breathing, there is a six-minute window of opportunity to intervene. Without intervention from bystanders or first responders arriving in a timely manner, irreversible brain damage will ensue. The same is true for badly injured victims of trauma where blood loss is significant, without appropriate intervention, the emergency continues to escalate to a point of irreparable damage.

Effective Response Force

An effective response force is defined as the minimum number of firefighters and equipment that must reach a specific emergency incident location within a maximum prescribed travel (driving) time. The maximum prescribed travel time acts as one indicator of resource deployment efficiency. As discussed previously, fire department response capability and capacity is a function of the community's resource allocation and is a significant determinant in the degree of vulnerability of a community to unwanted fires and other emergencies. A community with a sizeable and effective firefighting force, for example, would be less vulnerable to the large negative consequences of an unwanted fire than would a community with fewer resources allocated. CVFD is striving to implement best practices for minimizing the consequences of unwanted fires and other emergencies in a community by matching the allocation of fire department resources to the risk profile of a community.

Matching Resources to Risks-Tools for Decision Making

Once the details of risks/hazards are known for a community, the Fire Department can plan and deploy adequate resources to either manage the known risks or respond and mitigate the emergency when an adverse risk event like an unwanted fire or medical emergency occurs.

For example, when considering resource deployment decisions, regardless of the size of a burning structure, firefighting crews must engage in four priorities:

- Life safety of occupants and firefighters
- Confinement and extinguishment of the fire
- Property conservation
- Reduction of adverse environmental impact

Interdependent and coordinated activities of all firefighting personnel deployed are required to meet these priority objectives. There are a number of tasks related to each of the priorities and these tasks

(e.g., stretching a hose line to the fire, ventilation, search and rescue) can be conducted simultaneously, which is the most efficient manner, or concurrently, which delays some task(s) thereby allowing risk escalation, explained earlier, to occur.

Fire Prevention Metrics

Within the Fire Prevention Division, the primary outcome metric is to identify and eliminate hazards. Therefore, it is imperative that the Division complete all requisite inspections. These metrics are used to determine if Prevention operations are accomplishing goals. The Division's current metrics are:

For Fire Code Inspection services, the following performance metrics shall be met:

- Complete 100% of permitted occupancy inspections annually
- Complete 100% of California State Fire marshal regulated occupancy inspections annually
- New business license inspections completed within 30 days

For Fire Safety Engineering services, the following performance metrics shall be met:

- Complete 90% of plan reviews within the established time frames

For Fire Investigation services, the following performance metrics shall be met:

- 100% of Fire Origin and Cause Investigations performed by Fire Prevention personnel

For Community Risk Reduction Education services, the following performance metrics shall be met:

- Complete 200 public education/outreach sessions/classes/events classes annually

Fire Operations Metrics

Fire Department performance metrics are focused on outcomes of core capabilities and services provided. To ensure metrics are effective, they must be specific to the service, measurable, agreed upon, realistic, and time based. It may seem appropriate to have a specific metric for each core capability and service; however, the Fire Department has found that by establishing the following three metrics, all other services are met when these are attained.

Fires

For structure fires, the following performance metric shall be met:

- First unit on-scene within seven minutes 90% of the time, four firefighters known as the Initial Attack Force capable of establishing command, initiating fire attack and search and rescue.

This performance metric maintains distribution and reliability of resources within the firefighting core capability and service. Arriving prior to the seven-minute mark is intended to initiate fire attack and search and rescue prior to flashover. Arriving prior to flashover and preventing it from occurring, increases survivability within the room of origin as well as in the building of origin and significantly reduces fire loss.

By meeting this performance metric, flashover is avoided and the forward progress of the fire is stopped however, it is not extinguished.

The best way to get water on the fire quickly is to gain access to the structure and enter with hoselines. However, Occupational Safety and Health Administration (OSHA) mandates that firefighters may not enter the hazardous environment without a Rapid Intervention Crew (RIC) in place unless there is an immediate life threat. To satisfy OSHA's "Two-in Two-out" rule, current CVFD 3.0 staffing levels require the first-in engine company to wait for the second arriving engine prior to making entry into a burning structure. Having 4.0 staffing levels on engine companies allows CVFD to gain access to a structure immediately upon arrival of the first engine on scene thereby preventing any delays in waiting for arrival of other units.

- Effective Response Force on-scene with 14 firefighters within ten minutes 90% of the time, capable of assuming command and control, establishing a water supply, supporting and backing up fire attack, completing search & rescue, performing ventilation of heat and smoke, providing a Rapid Intervention Crew, and a Safety Officer.

Stopping flashover does not mitigate the fire problem, and to safely do so, additional firefighters are required. Fighting a fire requires the right concentration and reliability of resources to meet this metric. Critical tasks must be done simultaneous to the initial fire attack to increase survivability and reduce fire loss. Coordinating resources, extinguishing the fire, searching for victims, and performing ventilation are required by the Effective Response Force. This is what drives the necessity of having the correct number of firefighters on-scene in a timely manner. By meeting this metric, the fire can be extinguished and firefighters can then move to secondary property conservation tasks such as salvage and overhaul.

National Institute of Standard and Technology and Chula Vista Fire Department Studies

The U.S. Department of Commerce and National Institute of Standards and Technology (NIST), working in cooperation with the International Association of Fire Chiefs, released a study in April 2010 which showed the following:

- 4 person crews complete fireground tasks 30% faster (7 minutes faster) than 2 person crews, and 25% faster (5.1 minutes faster) than 3 person crews;
- 4 person crews get water on the fire 6% faster than 3 person crews, and 16% faster than 2 person crews;
- 4 person crews complete laddering and ventilation for life safety and rescue 30% faster than 2 person crews, and 25% faster than 3 person crews;
- 4 person crews start and complete a primary search and rescue 6% faster than 3 person crews, and 30% faster than 2 person crews (10% equals just over 1 minute);
- 3 person crews can stretch a hose line 57 seconds faster than a 2 person crew, and 4 person crews can stretch a hose line 87 seconds faster than a 2 person crew. 5 person crews can stretch a hose line more than 2 minutes faster than a 2 person crew;
- 2 person crews cannot complete essential tasks in time to rescue occupants without subjecting either firefighters or occupants to an increasingly hazardous atmosphere, regardless of fire size or growth rate. Larger crews responding to slow-growth fires can rescue most occupants prior to incapacitation along with early-arriving larger crews responding to medium growth fires.

In 2011, as a means to verify the NIST study results locally, an internal Chula Vista Fire Department Critical Task Analysis was completed. The Department's own results demonstrated that a RIC line could be deployed in 2 minutes 30 seconds with a 4.0 staffed engine vs. 6 minutes with a 3.0 staffed engine resulting in a full 3 minutes and 30 seconds faster performance. A three-minute difference was demonstrated when 4.0 staffed crews applied water to the fire during the same internal analysis.

Emergency Medical Services (EMS)

For emergency medical calls the following performance metric shall be met:

- First unit on-scene within seven minutes 90% of the time, capable of establishing command, providing basic life support patient care, and initiating advanced life support patient care.

This performance metric maintains distribution and reliability of resources within the EMS response core capability and service. Arriving prior to the seven-minute mark is intended to provide basic life support patient care to stabilize the sick and injured. Once the patient is stabilized, advanced life support skills can be initiated prior to the arrival of the transporting ambulance. With the arrival of the first on-scene unit within seven minutes, survivability increases significantly.

An extremely important consideration to focus on regarding performance metrics is that response times are only one part of the mitigation of an incident. Total response time for an EMS call for service comprises the initial call with 911 processing and fire unit notification, unit(s) responding from the station and traveling to the address of the call for service. The second element of the response includes patient contact, treatment, and stabilization of the incident. The initial call and rendering medical assistance are the elements the fire department has direct control over with respect to outcomes, response times, and patient care. The third and fourth elements are patient transport to the hospital followed by hospital patient care which are not within direct control of the fire department.

When considering true patient outcome, the Fire Department only has direct control over 50% of the entire event. Based on the elements of the call that can be influenced by the Fire Department, it is critical to arrive on-scene as quickly as possible. However, once the Fire Department arrives on-scene, patient care and treatment are dynamic and can be done simultaneously when staffing is adequate. With this concept in mind, 4.0 staffing increases patient outcomes because once a fire apparatus arrives on-scene, lifesaving critical tasks are performed simultaneously rather than a linear series.

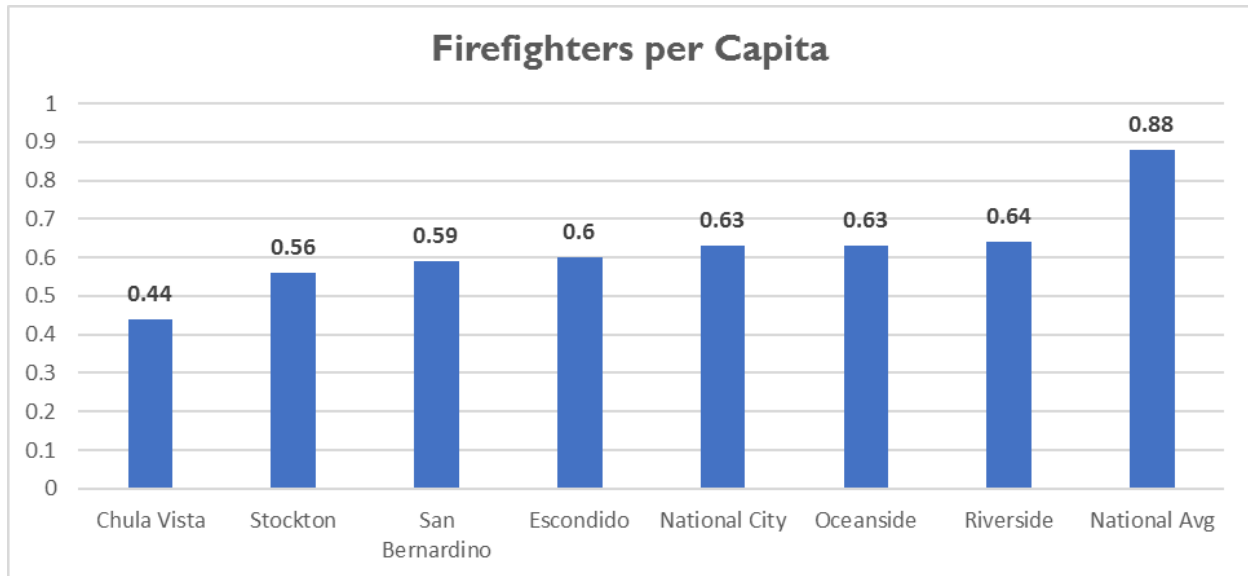
It must be recognized that this performance metric is automatically in place once the "first unit on scene" fire performance metric discussed above, is put in place. This provides a built-in efficiency to the cost of meeting the fire metric.

Fire Department Staffing Per Capita

According to the 2015 NFPA Fire Service Survey, career firefighters per 1,000 population in 13 Western Region States, averages .88 firefighters in cities with populations of 250,000 or more. The City of Chula Vista has a population of approximately 267,000 served by 120 firefighters giving a per capita of .44

firefighter per 1,000 residents. In addition, the Chula Vista Department is the lowest per capita in the State of California. This ranking alone puts our citizens more at risk than neighboring cities.

Figure 27: Firefighters per Capita



Fire Department Performance – Fire Operations Division

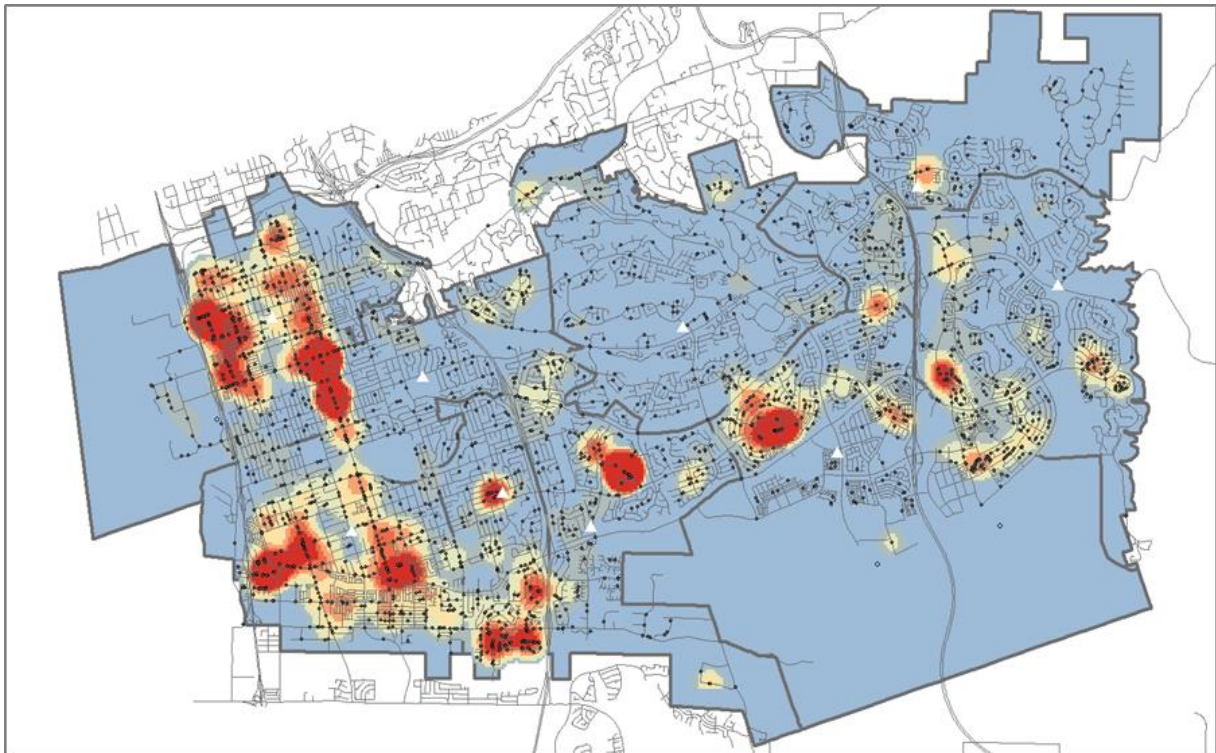
Current Fire Department performance within Fire Operations does not meet established performance metrics. Many factors contribute to this including population growth, aging population, increase in call volume, development, and traffic calming measures.

- Fire Operations Gaps (failing metrics)
 - **Fires:** First unit on-scene within 7 minutes 90% with four firefighters capable of establishing command, initiating fire attack and search & rescue. Actual performance for 2016 is 63.3%
 - **Fires:** Effective firefighting force with 14 firefighters within 10 minutes 90% capable of assuming command and control, establishing a water supply, supporting and backing up fire attack, completing search & rescue, ventilation of heat and smoke, providing a rapid intervention crew, and safety officer. Actual performance for 2016 is 58.1%
 - **EMS:** First unit on-scene within 7 minutes 90% capable of establishing command, providing basic life support patient care, and initiating advanced life support patient care. Actual performance in 2016 for EMS calls only is 80.3%
 - Currently, the Chula Vista Fire Department does not staff one of its fire stations with a fire engine. Fire Station 3 is staffed with the City’s US&R 53 which does not carry hose or water. This makes the district served by Station 3 vulnerable since a fire in this district will burn until an engine arrives from an adjoining district. All 9 station districts in the City must be staffed with a fire engine.
 - 3.0 staffing does not allow for Initial Fire Attack upon arrival of first engine on scene
 - Non – compliant with GMOC response time standard
 - Non – compliant with Council Resolution 2014-018 adopted standards

Figure 28: Fire Department Service Delivery Gaps/Challenges: Emergency Operations
Fire Responses > 7 minutes



Figure 29: Fire Department Service Delivery Gaps/Challenges: Emergency Operations
EMS Responses > 7 minutes



Fire Department Performance – Fire Prevention Division

Current Fire Department performance within the Fire Prevention Division does not meet all the established performance metrics. Intermittent and/or a lack of staffing has led to challenges in achieving stated Fire Prevention performance goals. However, when fully staffed, the Division is able to meet the core metrics, thus maximizing safety for the community. As the City continues to grow, through population changes and planned development, there will be an increased demand for highly technical plan reviews and inspections. This growth will increase demand for Fire Prevention services during both development of new projects as well as ongoing inspection of said occupancies throughout their useful life. This growth in Chula Vista also will increase the need for Community Risk Reduction Education. Lastly, the projected increase in Fire Department calls for service will necessitate additional Fire Investigation presence and capability.

- Fire Prevention Gaps (failing metrics)
 - 100% of fire investigations are not being completed by trained Fire Prevention Inspector/Investigators.
 - Currently, there is no Public Education Specialist position
 - Non-compliant with performing State mandated multi-family residential inspections
 - Non-compliant in completing business license inspections within 30 days

Fire Department Performance – Fire Administration Division and Support Services Division

The Fire Department currently operates with an executive staff consisting of the Fire Chief and a Deputy Fire Chief responsible for the Operations Division. By comparison, during the recession in 2009, Fire Department Executive Staff included an additional Deputy Fire Chief responsible for oversight of the Administrative Division. All tasks that fall under the Administrative Division are now split among the Fire Chief, Deputy Fire Chief, and Fire Marshal.

The entire Support Services Division falls under the direction of the Fire Marshal who spends the majority of time overseeing facilities; leaving little time to address communications and information technology. In addition, the burden of fleet services falls on a Battalion Chief who should optimally spend more time supervising crews through trainings, briefings, emergency responses, and support efforts.

- Fire Administration/Support Services Inefficiencies
 - Currently, there are 8 Chief Officers and one staff member who report directly to the Deputy Fire Chief exceeding span of control
 - Currently, there is no Chief Officer assigned to the Administration Line of Business
 - Fire Marshal directs too many services: Fire Prevention Division, Support Services Division and Emergency Management Services
 - Brush management throughout the City is not funded throughout the worst overgrown hazard areas in the open space
 - There is only one dedicated fire mechanic qualified to work on fire apparatus

Measure P Funding

Measure P funds will contribute to the achievement of the response metrics discussed in this report through the purchase and addition of new fire apparatus and fire station rebuild/relocations. The addition of reliable equipment will reduce out of service time due to mechanical repair, and the re-building and re-location of fire stations, combined with the recommendations in this report, will provide residents and visitors enhanced service delivery with improved outcomes.

Fire Department Recommendations

On January 28, 2014, Chula Vista City Council approved Resolution Number 2014-018, adopting Fire Department emergency medical and fire response standards that included the following:

- Arrival of the first unit on scene to a fire or medical emergency within seven minutes, 90% of the time.
- Arrival of the Effective Fire Force, consisting of 14 firefighters on scene within ten minutes, 90% of the time for all structure fires.
- Adopt a policy for implementation of full time four-person staffing for all engine companies as funding is available.

In order to meet the standards listed above, and to ensure better outcomes through compliance of the metrics adopted by Council and discussed in this report, the Fire Department recommends the following:

Recommendation 1

In FY-18/19, provide funding for phased implementation of full-time minimum staffing of four firefighters on engines 51, 52, 55, and 57 to include 1 Fire Captain, 1 Fire Engineer, 1 Firefighter/Paramedic, and 1 Firefighter/EMT. Estimated annual cost for Recommendation 1 is \$1.7 million annually. These estimates do not include equipment and capital costs.

Recommendation 2

Beginning FY-20, Staffing at Millenia Fire Station. Estimated annual cost for Recommendation 2 is an additional \$2.2 million annually. These estimates do not include equipment and capital costs.

Recommendation 3

Beginning FY-21, Staffing at Bayfront Fire Station engine. Estimated annual cost for Recommendation 3 is an additional \$2.2 million annually. These estimates do not include equipment and capital costs.

Recommendation 4

Beginning FY-22, the implementation of 4 Fire Medic Squads 57 and 60. Estimated annual cost for Recommendation 4 is an additional \$2.2 million annually. These estimates do not include equipment and capital costs.

Recommendation 5

Beginning FY-23, the implementation of 4 Fire Medic Squads 58 and 56. Estimated annual cost for Recommendation 5 is an additional \$2.2 million annually. These estimates do not include equipment and capital costs.

Recommendation 6

Beginning FY-24, the addition and implementation of one 4.0 staffed fire engine to be housed at Fire Station 3, thereby fulfilling a ninth engine; one for each of the nine fire stations (in 2006, the re-opening of Fire Station 9 resulted in staffing the City with only 8 fire engine companies). Estimated annual cost for Recommendation 6 is an additional \$2.2 million annually. These estimates do not include equipment and capital costs.

Recommendation 7

Beginning FY-25, provide funding for implementation of full-time minimum staffing of four firefighters on Bayfront Truck Company to include 1 Fire Captain, 1 Fire Engineer, 1 Firefighter/Paramedic, and 1 Firefighter/EMT. Estimated annual cost for Recommendation 7 is an additional \$2.2 million annually. These estimates do not include equipment and capital costs.

Recommendation 8

Beginning FY-26 provide funding for implementation of full-time minimum staffing of four firefighters on all Engine 54, 56, 58, and 59 to include 1 Fire Captain, 1 Fire Engineer, 1 Firefighter/Paramedic, and 1 Firefighter/EMT. Estimated annual cost for Recommendation 8 is an additional \$1.7 million annually. These estimates do not include equipment and capital costs.

Recommendation 9

Beginning FY-19, the addition of three Fire Inspector/Investigators assigned to conduct life safety inspections in multi-family apartment/condominium buildings, mobile home parks and assist in completing a higher percentage of fire investigations. Estimated annual cost for Recommendation 9 is an additional \$420,000 annually. These estimates do not include equipment and capital costs.

Recommendation 10

Beginning FY-19, the addition of a Public Education Specialist to perform Community Risk Reduction Education. Estimated annual cost for Recommendation 10 is an additional \$86,000 annually. These estimates do not include equipment and capital costs.

Recommendation 11

Beginning FY-19, the addition of a Deputy Fire Chief assigned to the Administration Division. Estimated annual cost for Recommendation 11 is an additional \$235,000 annually. These estimates do not include equipment and capital costs.

Recommendation 12

Beginning FY-19, the addition of a Deputy Fire Chief assigned to the Support Services Division. Estimated annual cost for Recommendation 12 is an additional \$235,000 annually. These estimates do not include equipment and capital costs.

Recommendation 13

Beginning FY-19, the ongoing funding of \$300,000 directed toward vegetation management in identified open space areas.

Cost for all CVFD Recommendations

Total estimated costs for all recommendations combined is an estimated \$17.9 million annually. These estimates do not include equipment and capital costs

Additional Discussion on CVFD Recommendations

Discussion on Recommendation 1 and 2

Recommendations 1 and 2 above will ensure compliance with Council action taken in January 2014, when Council Resolution 2014-018 was adopted.

As discussed throughout this report, recommended performance metrics will maintain distribution and reliability of resources within the firefighting core capability and service. Arrival to a fire emergency prior to the seven-minute mark (distribution) will allow initial fire attack and search & rescue prior to flashover. Preventing flashover from occurring, increases survivability within the room of origin as well as in the building of origin, provides improved safety conditions for firefighters, and significantly reduces fire loss. By meeting this performance metric, the forward progress of the fire is stopped however, it is not extinguished. Stopping flashover does not mitigate the fire problem, and to safely do so, additional firefighters are required (concentration). Fighting a fire requires the right concentration and reliability of resources. Critical tasks must be completed simultaneous to the initial fire attack by the 14 firefighters (Effective Response Force) to increase survivability, extinguish the fire, and reduce fire loss.

Arrival of an Engine Company staffed with 4 firefighters will eliminate delays in waiting for the next unit to arrive and will allow for immediate attack on the fire (Initial Attack Force) while maintaining OSHA 2 in, 2 out safety regulations.

Arrival of the Effective Response Force on scene with 14 firefighters within 10 minutes 90% of the time will ensure command and control of the fire, establishment of a water supply, backup of fire attack, completion of search and rescue, ventilation, and extinguishment of the fire. By meeting this metric, the fire can be extinguished and firefighters can then move to secondary property conservations tasks such as salvage and overhaul.

As of July 7, 2017, Council authorized the addition of the Fire Department's first 4.0 staffed engine – Engine 51 located at Fire Station 1. Shortly after this policy decision by Council, in early August 2017, Engine 51 responded to an apartment fire in the 400 block of Oaklawn Avenue. The 4.0 staffed unit arrived on scene in 4 minutes and 3 minutes later, knocked the fire down thereby eliminating flashover and preventing the fire from burning longer and hotter and destroying the occupant's property. This is the first documented success story of the actions taken by Council. The success also directly supports the findings of an internal timing study conducted by the Fire Department that prove the positive impacts and outcomes of a 4.0 staffed engine company.

In addition to this successful outcome, the Fire Department made a comparison analysis of Engine 51's time on task or "on scene time." The comparison below verifies the positive results anticipated by the Fire Department. Compared to a 3.0 staffed engine, one additional staff member on a fire engine contributes to the reduction of overall time spent at scene.

As discussed earlier in this report, reliability and availability are two key factors that affect operational performance. Since implementing 4.0 staffing and based on the comparison analysis, Engine 51 has

improved system reliability through increasing by more than 24 hours, its availability to receive calls. As a result of improvements to Engine 51’s reliability and availability, it could accept emergency calls more often, thereby reducing response times that otherwise would have required another unit to respond.

Figure 30: Comparison of 3-0 v. 4-0 Staffing on Engine 51

Incident Type Group	3-0		4-0		Difference in Average Time at Incident	Approx. Total Time Gained in Availability
	Count	Average Time at Incident	Count	Average Time at Incident		
Fire	25	0:41:32	17	0:21:14	0:20:18	5:45:14
EMS	613	0:14:49	641	0:13:04	0:01:45	18:40:58
Total	638	0:15:52	658	0:13:17	0:02:35	24:26:12

3-0 Staffing of E51 from May 5, 2017 - July 6, 2017 (63 days)

4-0 Staffing of E51 from July 7, 2017 - Sept 7, 2017 (63 days)

The Fire Department recently applied for and was awarded a Federal SAFER (Staffing for Adequate Fire and Emergency Response) Grant that will pay a portion of the costs for implementation of 4.0 staffing on four of its fire engines. These cost savings are not shown in the table above.

Discussion on Recommendation 4 and 5

The implementation of Fire/Medic Squads will be executed with several other measures most of which do not have a cost or are funded through pass through fees collected through the Department’s First Responder Advanced Life Support (FRALS) Program. The Squads will be staffed with 2 personnel (Fire Captain and Firefighter/Paramedic) and will serve areas of the City with high call volume, or areas that are vacated due to another unit going out of district for fuel, mechanical repairs, or training. The Squads will also supplement areas of the City known to have poor response times as indicated by data collected by the Fire Department.

Fire/Medic Squads will provide additional units to the response network thereby bolstering the distribution of resources. As mentioned earlier, distribution of resources is the placement of fire response vehicles that allow for adequate response time travel from point A to point B. Providing better

distribution through implementation of Squads allows for the improvement of availability/reliability discussed earlier in this report. With increased distribution of response units and the improvement to units being available to respond, response times will trend downwards towards the goal of 7 minutes 90% of the time.

In addition, several other improvements will be made to the system. At no cost, the Fire Department will eliminate responses to Level 3 calls for service and require only a response by the transporting unit (AMR).

The current emergency dispatch triage classifications utilized by our communications center, San Diego Emergency Communications and Data Center (ECDC) aka San Diego Metro, involve a triaged rating of Level 1 (Emergent) to Level 4 (Non-Emergent). The CVFD responds only to Level 1, Level 3, and Traffic Accident classifications currently, all in an emergent (lights and siren) mode. Level 3 calls are considered urgent responses for both first responder and transport units, but the current practice is to send both units to scene emergently with lights and sirens to these responses.

An internal Fire Department analysis revealed that out of the approximately 1,800 Level 3 calls for service, less than .0012 percent of these responses involved patients suffering from acute conditions which can therefore translate into a transport (AMR) only response. The elimination of a first responder unit from these calls is consistent with community standards in Metro dispatched agencies. The elimination of Level 3 responses by Chula Vista Fire Department resources will serve to improve unit availability/reliability thus assisting with meeting the 7 minutes 90% goal.

There is another improvement that will be made at no cost. Upon arrival of a Squad, the Company Officer, after assessing the patient, may downgrade the call and cancel the responding engine company. Doing so will once again improve the engine company availability/reliability for other calls for service. In addition, time spent on scene by engine companies will be reduced as a result of Squad implementation and will contribute to their unit availability/reliability.

In the very near future, the Fire Department is planning on implementing smart technology through the use of smart phones, apps, and the purchase and installation of new fire station alerting systems. The alerting systems are more efficient than current systems and have the capacity to alert firefighters of a call for service sooner than existing technology. Station alerting also talks directly to the smart phone via the app to automatically map the response route thereby eliminating time spent seeking directions prior to responding to the emergency. These improvements are also anticipated to be funded through the FRALS program with no impact to the General Fund.

Arriving prior to the seven-minute mark is intended to provide basic life support patient care to stabilize the sick and injured. Once the patient is stabilized, advanced life support skills can be initiated prior to the arrival of the transporting ambulance. With the arrival of the first on-scene unit within seven minutes, survivability increases significantly.

The implementation of Squads together with the above-mentioned changes and improvements, provide the best combination of efforts and efficiencies that will enable the Fire Department to achieve its 7-minute response metric 90% of the time.

Conclusion

This report was prepared at the direction of the City Council which on June 6, 2017 directed the City Manager to “report back to the City Council within 120 days with a plan to address the chronic understaffing of the Police and Fire Departments, with such plan considering all options, including: (i) alternative service models that may improve effectiveness and reduce costs; and (ii) potential funding sources.”

This Public Safety Staffing Report continues to be a work in progress. Further refinement of recommendations and fiscal impacts will be assessed after receiving Council direction and feedback.