



Office of the City Auditor

**Report to the City Council
City of San José**

**REVIEW OF FIRE
DEPARTMENT
PERFORMANCE MEASURES:
IMPROVING THE
USEFULNESS OF DATA**

**Report 12-05
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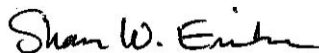
Honorable Mayor and Members
Of the City Council
200 East Santa Clara Street
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REVIEW OF FIRE DEPARTMENT PERFORMANCE MEASURES: Improving the Usefulness of Data

The San José Fire Department (SJFD) responds to more than 50,000 emergencies each year in San José. The Department tracks performance data that summarize services delivered. This report is one in a series of departmental reviews by the Auditor's Office intended to improve the quality of performance data. The 40 publicly-reported SJFD performance measures that we reviewed generally met the City's criteria of being meaningful, useful, and sustainable; however, some improvement is needed. Based on our review, the Department clarified the wording of some measures, and deleted some measures while adding others. We recommend the Department document its methodologies for calculating its performance measures, and continue to assess—by core service—how performance data can be better used by management and staff on an ongoing basis to help analyze past performance, establish performance objectives, and examine overall performance strategies.

We will present this report at the May 17, 2012 meeting of the Public Safety, Finance, and Strategic Support Committee. We would like to thank the Fire Department and Budget Office for their time and insight during the audit process. The Administration has reviewed the information in this report and their response is shown on the yellow pages.

Respectfully submitted,



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Introduction

In accordance with the City Auditor's 2011-2012 Audit Workplan, we have audited the San José Fire Department's publicly reported performance measures. The objective of our review was to assess the appropriateness and accuracy of those performance measures.

We conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives. We limited our work to those areas specified in the "Audit Objectives, Scope, and Methodology" section of this report.

The Office of the City Auditor thanks the San José Fire Department for its cooperation and assistance during our review.

Background

The City Auditor reports on City government performance through the annual *Service Efforts and Accomplishments Report*. In September 2009, the office also issued *Performance Management and Reporting in San Jose: A Proposal for Improvement* including recommendations to improve data quality. That report focused on the importance of moving from performance measurement (measuring and reporting inputs and outputs) to performance management (using data to improve performance). To facilitate that process, we recommended reviewing and reducing the number of performance measures, with the goal of ensuring that publicly reported performance measures are meaningful, useful, and sustainable. We also recommended a focus on documenting data collection methodologies and validating performance measures.

This is the second in a series of reviews of departmental performance measures. The first was a review and validation of the performance measures and costs of the Department of Transportation's sewer line cleaning program.

Fire Department Performance Measures

The Fire Department publicly reports a variety of performance data related to emergency response to fire, emergency medical services, other threats to public safety (e.g., hazardous materials, rescues, etc.), and prevention activities. The City's Annual Operating Budget (one of the primary mechanisms for publicly reporting performance measures) includes performance measures for the Fire

SJFD Performance Measures

Department, divided into three core services plus strategic support. Those core services are:

- Emergency Response (Field Operations)
- Fire Prevention (including Fire Code Enforcement, and Arson Investigation)
- Fire Safety Code Compliance

Additional measures are reported in the Public Safety City Service Area (CSA) section of the Operating Budget document. The annual Service Efforts and Accomplishments Report includes some of the same measures and some additional disaggregation of those numbers where available.

Externally, the Department reports arson information on a monthly basis to the U.S. Department of Justice. The Fire Department also submits Emergency Medical Service (EMS) response time data to the County of Santa Clara, as required by the City's Emergency Medical Services contract with the County.

In prior years, the Fire Department reported performance data on a quarterly basis as part of the Public Safety City Service Area (along with the Police Department) to the Public Safety, Finance, and Strategic Support committee; these reports were discontinued mid-2010. Following implementation of the FY 2010-11 operating budget, the Fire Chief submitted monthly performance reports directly to the Mayor and City Council. Internally, the Department's analytics unit prepares various reports and graphs on emergency response (or field operations) performance data.

Audit Objective, Scope, and Methodology

In October 2011, the Fire Department submitted performance measurement data/results for the fiscal year ending June 30, 2011 (FY 2010-11) to the Budget Office and the City Auditor's Office for inclusion in the *Operating Budget* and the *Service Efforts and Accomplishments Report*, respectively. The Auditor's Office then requested supporting backup documentation for the measures that were to be included in the *2010-11 Service Efforts and Accomplishments Report*; measures with sufficient backup were included in the report, while those with insufficient backup were either labeled as "estimates" or were excluded from the report. In some cases, the Auditor's Office made corrections to data submissions based on supporting documentation and after additional review and discussion with the Fire Department.¹ The submitted performance measures, data, direct observation, and supporting documentation were the basis of this review and validation process.

¹ 2010-11 actual performance data was published as part of the FY 2012-13 Operating Budget; known data corrections were included.

The City Auditor's Office reviewed each of the selected performance measures for appropriateness, accuracy, and reasonableness. For appropriateness, we reviewed each performance measure and determined whether or not it met the City's Investing in Results (IIR) criteria of being "meaningful, useful, and sustainable" (see Appendix A for detail). We also reviewed outside literature and sources for best practices in performance measurement for fire service, including but not limited to: the National Fire Protection Association, the Commission on Fire Accreditation International, *Municipal Benchmarks* by David Ammons (2001), and Vision 20/20 National Strategies for Fire Prevention (2009). We also reviewed fire service performance measures used by other jurisdictions, including the City and County of San Francisco and the City of Oakland. See Appendix B for a comparison of the performance measures that were included in the City's Operating Budget, the annual Service Efforts & Accomplishments Report, and this review.

For accuracy and reasonableness, we conducted walkthroughs with Fire staff to discuss the methodology and reporting behind each performance measure. We interviewed staff affiliated with each of the Department's core services as stated in the Budget: Emergency Response, Fire Prevention, and Fire Safety Code Compliance. This included the Bureau of Field Operations, the Bureau of Fire Prevention (including the Arson Unit), and the Office of the Chief (including the consolidated Analytics & Information Technology Services unit and the Fire Communications Division). We also conducted two ride-alongs: one with Fire Station staff (Station 2) to obtain more insight into the operations of the emergency response core service and field operations in general, as well as a ride-along with a fire prevention inspector to understand the inspection and complaint investigation process. We discussed the meaningfulness and usefulness of data with Fire Department management and the City Manager's Budget Office. While we sampled some of the underlying data for the performance measures, we did not audit the Computer Aided Dispatch system (CAD) or the Records Management System (RMS).

The City Auditor's Fiscal Year 2011-12 Work Plan includes an audit of Fire Prevention, including the causes and impacts of reported low compliance with state inspection requirements.

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Finding I Improving the Usefulness of Performance Measures in the Fire Department

The 40 publicly-reported performance measures that we reviewed generally met the criteria of being meaningful, useful, and sustainable, but some improvements are needed. Based on our review, the Department clarified the wording of some measures, and deleted some measures while adding others. We recommend the Fire Department document its methodologies for calculating these measures, and continue to assess—by core service—how performance data can be better used by management and staff on an ongoing basis to help analyze past performance, establish next performance objectives, and examine overall performance strategies.

Emergency Response Performance Measures

The Fire Department's emergency response core service focuses on providing comprehensive life safety services to residents and visitors in San José's incorporated and the County of Santa Clara's unincorporated areas, totaling approximately 200 square miles. These life safety services include fire suppression, Emergency Medical Services (EMS), hazardous materials mitigation, and managing the Emergency Operations Center when needed. The Department delivers service from a network of 33 fire stations, operated by 30 fire engine companies (including a company that serves as an Aircraft Rescue Fire Fighting company at Mineta San José International Airport), nine ladder truck companies, one urban search and rescue company (USAR), and (until recently) one Hazardous Incident Team (HIT) unit.

The Auditor's Office reviewed 15 performance measures in the Emergency Response core service. As shown in Exhibit I, we recommended clarifying that total property fire loss is an estimate. In addition, we found that the average cost per emergency response data that was submitted was calculated using estimated year-end expenditures instead of actual expenditures, and recommended that actual data should be used in final calculations. These changes have been incorporated. Finally, as shown below, at the time of our review data was not available regarding hazardous materials incidents and only estimates were available for City-wide training.

Exhibit I: Emergency Response Performance Measures

Performance Measure	Meaningful?	Useful?	FY 2010-11	Accurate and Sustainable?
1) Number of emergencies	YES	YES	52,564	Verified per RMS reports; data automated via CAD and RMS.
2) Number of fire emergencies (including structure, vehicle, wildland, and other fires)	YES	YES	1,570	Verified; part of #1 above.
3) Number of medical emergencies	YES	YES	49,683	Verified; part of #1 above. Originally submitted as 49,611 for FY 2010-11; changes may be attributed to the time of data entry.
4) Number of other emergencies	YES	YES	1,311	Verified; part of #1 above.
5) Number of non-emergencies	YES	YES	9,828	Verified; part of #1 above.
6) Total estimated property fire loss	YES	YES	\$26,000,000 ²	Data verified per RMS report; methodology reflects best estimates of Fire staff. Wording changed from "total property fire loss" to "total estimated property fire loss" to clarify that losses are estimates.
7) Percent of fires contained in room of origin	YES	YES	60%	Verified per Department calculations and RMS report; monthly RMS data accessed via RMS "Dashboard" and compiled for fiscal year.
8) Percent of fires contained in structure of origin	YES	YES	94%	Verified per Department calculations and RMS report; monthly RMS data accessed via RMS "Dashboard" and compiled for fiscal year. Originally submitted as 93% for FY 2010-11; changes due to rounding error.
9) Percent of time the initial responding unit arrives within 8 minutes after an emergency 9-1-1 call is received	YES	YES	82%	Verified per RMS reports; data automated via CAD and RMS.
10) Percent of time the second response unit arrives within 10 minutes after 9-1-1 call is received	YES	YES	87%	Verified per RMS reports; data reports automated via CAD and RMS.
11) Percent of emergencies (fire, medical and other) handled by units assigned to district	YES	YES	97%	Verified per RMS reports; unit assignments subject to change due to Dynamic Deployment.
12) Average cost of emergency response (budget/# of responses)	YES	YES	\$2,578 (actual)	Verified based on #1 above; originally submitted as \$2,554 for FY 2010-11 using estimated expenditures.
13) Number of hazardous materials incidents ³	YES	IN PROCESS	IN PROCESS	Data was not available at the time of our review. At the time of our review, available RMS reports showed zero hazardous materials emergencies in FY 2010-11. Reports are being fixed, and data has been subsequently provided to the Budget Office for inclusion in the 2012-13 Proposed Operating Budget.

² Includes estimated property loss for Trace Elementary School Fire.

³ The National Fire Protection Association (NFPA) recognizes hazardous material emergencies as one of the four major response types made by fire departments (fire, EMS, hazardous material, and other service calls).

<i>Performance Measure</i>	<i>Meaningful?</i>	<i>Useful?</i>	<i>FY 2010-11</i>	<i>Accurate and Sustainable?</i>
14) Percent of hazardous material releases contained to property of origin by Hazardous Incident Team - Total # contained	YES	IN PROCESS	IN PROCESS	Data was not available at the time of our review (See above),
15) Percent of City employees trained in State Mandated Standardized Emergency Management System (SEMS) and National Incident Management System (NIMS) - Senior Staff - All other City employees	YES	IN PROCESS	IN PROCESS	Unable to verify. This training is mandated to be provided to all employees every five years and new hires individually through online training. It appears that the reported percentages have been estimates, as it is not clear that the numbers are actually being tracked. The Department believes it is important to track compliance with this mandate and will be working to provide actual data.

Source: Auditor’s analysis of data provided by the San José Fire Department

Emergency Response Measures Appear to be Appropriate

In our opinion, the emergency response-related measures shown in Exhibit I met the City’s criteria for being “meaningful”— the measures are understandable to both internal and external stakeholders, and fire suppression and response to emergency medical service calls reflect the department’s mission and goals.

For the most part, the measures also met the City’s criteria for being “useful”— the underlying data is automatically captured from the Computer-Aided Dispatch (CAD) system into the Records Management System (RMS), which provides some level of consistency and reliability. The measures also accurately assess fire staff performance, from workload (emergency incidents requiring a response) to their response times and outcomes (e.g., fire spreading from the room or structure of origin).

Finally, most of the emergency response-related measures shown in Exhibit I also met the City’s criteria for being “sustainable” (as mentioned earlier, emergency response-related data is largely collected and automated via two distinct but related databases). The Computer-Aided Dispatch system logs and tracks all emergency 9-1-1 calls regarding the Fire Department; the data is automatically transferred to the Department’s Records Management System (RMS), also known as FireHouse (FH). Fire station staff are responsible for adding the outcomes of the emergency incident and any additional notes into FireHouse at the end of each emergency incident, when time allows. Additionally, performance-related reports have already been built into FireHouse and customized by the Analytics unit, allowing for a consistent methodology over time.

Emergency Response Measures, for the Most Part, Appear to be Accurate

As mentioned above, emergency response-related data is typically automated via CAD system and RMS/FireHouse, with some final data entry completed by Fire station staff. Performance-related FireHouse reports have been developed by modifying existing reports to include Fire Department performance objectives—data in RMS was previously tested by Fire Department and compared to statistics directly from the CAD system before being implemented Department-wide.⁴

For FY 2010-11 performance measures, the Auditor's Office observed various reports being re-run from FireHouse and compared the results to figures previously submitted to the Auditor's Office for the *2010-11 Service Efforts & Accomplishments Report*. The results of these reports matched or closely matched previously submitted data.⁵ As noted in Exhibit I, additional work is needed to confirm hazardous materials and training data.

Emergency Response Measures to Consider Tracking

Based on literature review and existing performance measures for the San José Fire Department, the Auditor's Office found that some aspects of the emergency response core service could be further highlighted or clarified. For example, the San Francisco Fire Department presents response times for certain types of medical calls, as well as the disaggregated travel time for each type of call, in their annual Budget document. The Auditor's Office suggests the following additional measures to consider for inclusion into department discussions and/or public reporting:

- *Disaggregated response times* (e.g., by type of response, by station) – The Department currently reports the overall percentage of the time that the initial 9-1-1 call receives a response within the goal of eight (8) minutes; however, the measure combines response times for both fires as well as emergency medical service (EMS) incidents. Disaggregating the response time by fire incidents and by EMS incidents would better reflect the Department's performance in each service area (nearly 95 percent of all emergency incidents in FY 2010-11 were comprised of EMS incidents). For example, EMS-only response time data is provided to the County of Santa Clara in order to meet compliance with the City's contractual obligation to provide first responder services. Reports in FireHouse allow for performance measures to be disaggregated in multiple ways (e.g., types of

⁴ According to the Fire Department, following the elimination of five companies in August 2010, response time data was exported from the Computer Aided Dispatch (CAD) system and compared to response time data from existing reports in FireHouse. The comparison was reported to have a difference of 0.5 percentage points or less.

⁵ The Auditor's Office did not audit the underlying Computer Aided Dispatch (CAD) system or the Records Management System (RMS).

incidents and response times disaggregated by apparatus or by station, as presented in the Auditor's *2010-11 Service Efforts & Accomplishments Report*).

- *Other EMS-related measures* – Outside of the overall response time performance (percent of time a fire company arrives on-scene within eight minutes) and the number of medical emergencies, the Fire Department does not publicly report any other EMS-related measures. As a result, there is no way to know exactly what service the Department actually provided or what happened to the patient on arrival. For example, the Department does not have data or track patient outcomes (e.g., survival rates); that data would reside with the ambulance company and/or hospitals. The National Fire Protection Association suggests reporting on patient treatment measures (e.g., % of patients requiring Basic Life Support or Advanced Life Support) as a method of identifying the demand for EMS service. Given that emergency medical calls are 95% of total emergencies, we recommend the Department begin reporting any other available EMS-related outcome or effectiveness measures or types of service provided, and/or consult with the County on other appropriate outcome measures.

Some Emergency Response Measures Are Being Deleted (but Should be Tracked for Internal Use if Needed)

As noted in performance management literature, too many performance measures can lead to “more confusion or ‘noise’ than useful data”.⁶ After discussions with the Department and reviewing the performance measures presented in various public documents, we found a number of measures that either provided too little context or too much detail for a high-level report and that, in our opinion, could potentially be dropped from public reporting. After consultation with the Department and the Budget Office, the following measures are being dropped from public reporting and are not included in Exhibit I, but should continue to be tracked and reported internally by management as needed:

- “# of STAR dispatches”, “# of STAR transports”, “# of STAR patients”, “% of STAR responses resulting in patient transports” – The Supplemental Transport Ambulance Resources (STAR) measures refer to a subset of emergency medical service incidents that involve using SJFD STAR “ambulances” to transport patients with severe life threatening conditions only in the event that the ambulances are delayed beyond pre-established response time thresholds. In total, there were numerous STAR-related dispatches, but relatively few responses by SJFD that resulted in STAR patient transport. Instead, the Department will be reporting the number of Squad Car Units dispatched. The Squad Car Unit pilot program is expected to be implemented in May 2012.

⁶ See Behn, Robert. “Why Measure Performance? Different Purposes Require Different Measures” *Public Administration Review*, Sept/Oct 2003, Vol. 63, No. 5.

- *'Total # of EOC activations'* – The City activates the Emergency Operations Center (EOC) in response to natural, technological, or human-caused disasters. In FY 2008-09, the EOC was activated 12 times, but has not been activated since. While this is an important figure to track internally for management purposes and while an EOC activation could require significant resources City-wide, activations are rare and publicly announced.

Fire Prevention Performance Measures

The Bureau of Fire Prevention (BFP) is responsible for investigating fire cause and providing regulatory enforcement of fire and hazardous materials codes through inspection and investigation activities. Areas of responsibility include: arson, code enforcement, engineering, and hazardous materials. The Bureau's Fire Code Enforcement Division is comprised of both sworn staff (Arson Unit, Fire Inspectors) and civilian staff (Hazardous Materials personnel); additional civilian staff in the Bureau's Development Services Division (architectural engineers, and fire alarm/sprinkler staff) is shown in the Fire Safety Code Compliance core service in the next section.

Summary of Fire Prevention Performance Measures

The Fire Code Enforcement section of the Bureau of Fire Prevention consists of sworn Fire Prevention Inspectors and civilian Hazardous Materials Inspectors. Both types of inspectors provide regulatory enforcement of fire safety and hazardous materials codes through inspections and re-inspections or investigations of complaints when necessary. In addition to Fire Prevention Inspectors, line staff (or Firefighters located at fire stations throughout the city) also conducts fire prevention inspections of certain facilities under the direction of BFP staff.

The Auditor's Office reviewed 14 performance measures in Fire Prevention (the Arson Unit is shown separately below). In our opinion, the 14 measures met the criteria of being meaningful and useful in that the data exists in the system and would accurately assess performance. The Auditor's Office also found that the measures generally met the criteria for being sustainable; however, the Fire Department reported that data for two of the measures was not available and required more time to review the underlying data and methodology (see next section). Exhibit 2 below shows the final FY 2010-11 figures as they are known today. The Fire Department is working to refine its methodology for tracking Fire Prevention performance measures. Changes to the methodologies will be considered during our upcoming audit of the Bureau of Fire Prevention, and reflected as part of the 2011-12 Service Efforts and Accomplishments report and as part of the 2013-14 budget process.

Exhibit 2: Fire Prevention Performance Measures

<i>Performance Measure</i>	<i>Meaningful?</i>	<i>Useful?</i>	<i>FY 2010-11</i>	<i>Accurate and Sustainable?</i>
Number of initial inspections: ⁷ 1) conducted by Firefighters (State-mandated)	YES	YES	3,957*	Originally submitted as 596 for FY 2010-11. There are no automated reports available; as a result, methodology requires individual and specific data queries by staff.
2) conducted by BFP inspectors (State-mandated)	YES	YES	771*	Originally submitted as 202 for FY 2010-11. There are no automated reports available; as a result, methodology requires individual and specific data queries by staff.
3) conducted by BFP inspectors (non-mandated)	YES	YES	900*	Originally submitted as 900 for FY 2010-11; later figures by Department showed 1,052 inspections. However, verified methodology for final update of 900 inspections. There are no automated reports available; as a result, methodology requires individual and specific data queries by staff.
4) Number of re-inspections (State-mandated)	YES	YES	IN PROCESS*	There are no automated reports available; as a result, methodology requires individual and specific data queries by staff. Wording changed from “# of initial inspections conducted with code violations” to “# of re-inspections” to clarify what is being tracked.
5) Number of re-inspections (non-mandated)	YES	YES	IN PROCESS*	There are no automated reports available; as a result, methodology requires individual and specific data queries by staff. Wording changed from “# of initial inspections conducted with code violations” to “# of re-inspections” to clarify what is being tracked.
6) Total annual permitted occupancies: Fire Safety	YES	YES	7,178*	Originally submitted as 7,091 for FY 2010-11. Data reflects occupancy count as of beginning of FY 2010-11 to establish baseline; count subject to change throughout the year. ⁸ Measure is important in order to gauge workload and performance.
7) Total annual permitted occupancies: Hazardous Materials	YES	YES	2,822*	Originally submitted as 2,904 for FY 2010-11. Data reflects occupancy count as of beginning of FY 2010-11 to establish baseline; count subject to change throughout the year. ⁹ Measure is important

* Data currently under review by the Bureau of Fire Prevention; subject to change.

⁷ State-mandated occupancies are inspected by staff at fire stations under the Bureau of Field Operations, as well as Fire Prevention Inspectors under the Bureau of Fire Prevention; it is important to distinguish which staffing resources are being used to complete these activities, as fire station staff are primarily responsible for responding to fire, medical, and other emergencies (see Emergency Response core service).

⁸ Occupancy count in FireHouse may fluctuate throughout the year based on data entered (or deleted) by Fire inspectors' observations in the field. Related recommendations from a 2003 audit regarding updated occupancy and inspection data were still not implemented as of December 31, 2011. It should be noted that staffing changes and reductions have hampered the Department's ability to produce this information.

⁹ *Ibid.*

SJFD Performance Measures

<i>Performance Measure</i>	<i>Meaningful?</i>	<i>Useful?</i>	<i>FY 2010-11</i>	<i>Accurate and Sustainable?</i>
				in order to gauge workload and performance.
8) Special Event Plan reviews performed	YES	YES	320	Originally submitted as 198 for FY 2010-11. Data for FY 2010-11 originates from two sources: AMANDA system for first 6 months, then FireHouse database for last 6 months due to transition from one system to another.
9) Number of complaints investigated	YES	YES	153	Originally submitted as 242 for FY 2010-11. There are no automated reports available; as a result, methodology requires individual and specific data queries by staff. According to Department, data reflects number of unique complaints investigated.
10) Percent of state-mandated occupancies receiving a inspection	YES	YES	47%*	Originally submitted as 36% for FY 2010-11; updated figures showed 15% (which was included in the annual SEA report as an estimate). Subsequently, a former BFP Senior Analyst was able to establish other counts and provided methodology for 47%; queries were observed by the Auditor's Office. The Fire Department is reviewing the underlying data and methodology. These percentages will be the subject of the upcoming audit of the Bureau of Fire Prevention.
11) Percent of non-mandated occupancies receiving an inspection	YES	YES	40%*	Originally submitted as 18% for FY 2010-11; updated figures showed 27%. Former BFP Senior Analyst was able to establish other counts and provided methodology for 40%; queries were observed by the Auditor's Office. The Fire Department is reviewing the underlying data and methodology. These percentages will be the subject of the upcoming audit of the Bureau of Fire Prevention.
12) Percent of inspections not requiring a follow-up inspection	YES	YES	66%	Originally submitted as 80% for FY 2010-11; however, Fire could not provide methodology or reasonable estimates for this measure. Former BFP Senior Analyst was able to establish the necessary counts and provided methodology; queries were observed by the Auditor's Office. Per staff interviews, significant amount of BFP workload actually consists of re-inspections.
13) Percent of code violation complaint investigations initiated within 1 week	YES	YES	86%	Originally submitted as 90% for FY 2010-11. Does not include re-inspections as result of an investigation; data exported from FireHouse database for separate analysis, which was reviewed and verified by Auditor's Office.
14) Ratio of current year fee revenue to fee program cost	YES	YES	89.5% (estimated)	Originally submitted as 100% (estimated) for FY 2010-11. The Fire Prevention Non-Development Program current year fee program revenue cost recovery for FY

<i>Performance Measure</i>	<i>Meaningful?</i>	<i>Useful?</i>	<i>FY 2010-11</i>	<i>Accurate and Sustainable?</i>
				2010-11 was 89.5% as reported in FY 2011-12 Adopted Fees & Charges Report for Fire Non-Development Program Fees. This performance measure was dropped from the operating budget, but appears in the annual Fees & Charges Report.

Source: Auditor’s analysis of data provided by the San José Fire Department

* Data currently under review by the Bureau of Fire Prevention; subject to change.

Fire Prevention Measures Appear to be Appropriate

The code enforcement-related measures met the City’s criteria for being “meaningful”—inspections and complaint investigations are easy for the general public and other stakeholders to understand, and the activities reflect the primary work of the Bureau of Fire Prevention.

The measures also met the City’s criteria for being “useful”—similar to Emergency Response staff at the fire stations, Fire Prevention staff must enter inspection and complaint data into FireHouse once completed, which helps to maintain data reliability. FireHouse captures not only when the inspection or investigation was completed, but also tracks all permits and violations and schedules any subsequent follow-up inspections if needed.

Revised Fire Prevention Data Required Significant Review and Recalculation—Methodologies Need to be Documented and Reviewed Among Fire Prevention Staff

At the outset of our review, we initially tagged the data for all 12 Fire Prevention measures as estimates; the actual data could not be verified due to a lack of documentation. While the data was being entered into FireHouse and maintained in the database, the reported performance measures were based on individual queries of the FireHouse database that were calculated by an Analyst who was no longer with the Department at the time of our review.¹⁰ Although the Analyst left some instructions, there were no written methodologies or directions as to how to calculate the performance measures. In addition, there were no automated reports to help capture or formalize these queries.

Despite multiple attempts, the Department’s remaining analytical staff (none of whom had prior experience in the Bureau of Fire Prevention or with the fire prevention related data in FireHouse) were unable to replicate the FY 2010-11 performance statistics for the unit with any degree of certainty. Each attempt yielded slightly different results based on various assumptions of how services were provided and/or how data was coded or entered into the system.

¹⁰ The Analyst for the Bureau of Fire Prevention (BFP) retired in February 2011; in the prior fiscal year, the previous BFP Senior Analyst position was eliminated and “bumped” over to the Police Department.

While staff in the Code Enforcement Division of the Bureau of Fire Prevention were able to query occupancy locations in FireHouse as well as track their own individual time cards (including hours towards administrative work, training, and actual inspection or investigation time), it did not appear that summary statistics had been discussed within the Bureau of Fire Prevention or with Fire management. Nor had BFP Code Enforcement staff reviewed the overall FireHouse database (or the summary statistics it previously produced) for quality control or any possible data integrity issues.

In April 2012, the Fire Department enlisted the help of their former Senior Analyst (assigned to another City department) to re-calculate FY 2010-11 data from the FireHouse database. The Senior Analyst was able to provide the Auditor's Office with some updated figures for FY 2010-11 and the basic methodology and queries used to obtain the figures, as well as walk through the process with the Chief's analytical staff and the newly appointed Assistant Fire Marshal.

The Department is in the process of reviewing and documenting methodologies for these performance measures, based partly on the former Senior Analyst's suggestions and an analysis of existing and anticipated business processes (e.g., use of handheld computers, interfacing with other existing business databases). In addition, the Department has reorganized the analytical and IT staff to more effectively support its operational and prevention units. These changes should allow BFP management to better utilize the available performance data in FireHouse, including reviewing the data with Fire Prevention staff to assess the accuracy and importance of the data, and training BFP staff on how to use FireHouse.

Fire Prevention Measures to Consider Tracking

Based on literature review and existing performance measures for the San José Fire Department, the Auditor's Office found that some aspects of the fire prevention core service could be further highlighted or clarified. The Department may want to consider adding the following measure into department discussions and/or public reporting:

- *Current year fee program revenue (permit & inspection fees in dollars)* – The Department reports the “ratio of estimated current year fee revenue to fee program cost” (89.5% for non-development program fees in FY 2010-11) in the annual Fees & Charges Report. In addition, we recommend the Department consider internal reporting of the Bureau of Fire Prevention's Development and Non-Development fee program revenues (in dollars). Some staff seemed unaware that the Non-Development program generates significant revenue through fire safety and hazardous materials permit and inspection fees, and special events permit fees. In 2010-11, the Non-Development program had projected revenue of over \$4 million.

Fire Prevention Arson Unit Performance Measures

The Bureau of Fire Prevention's Arson Unit consists of one Fire Captain and a staff of three Arson Investigators; Arson Unit staff is a specialized class of uniformed Firefighters in that they act as Peace Officers while conducting arson investigations.

The Auditor's Office reviewed five performance measures related to the Fire Prevention Arson Unit. As shown in Exhibit 3, the five arson-related measures we reviewed met the criteria for being meaningful, useful, and sustainable; we did recommend some changes to simplify and clarify the wording of three of the five measures. Those changes have been incorporated as shown below.

Exhibit 3: Fire Prevention Arson Unit Performance Measures

<i>Performance Measure</i>	<i>Meaningful?</i>	<i>Useful?</i>	<i>FY 2010-11</i>	<i>Accurate and Sustainable?</i>
1) Number of investigations conducted by Arson Unit	YES	YES	371	Originally submitted as 370 for FY 2010-11; additional case was updated with an incident date in FY 2010-11. Verified methodology for measure; case records kept in database. This measures the total number of times Arson Unit responded to a fire incident. Wording is being revised from "number of arson investigations" to "number of investigations conducted by Arson Unit" to clarify what is being tracked.
2) Number of investigations resulting determination of arson	YES	YES	178	Originally submitted as 264 for FY 2010-11; this included the total investigations resulting in finding of either arson or "suspicious" fire (likely to be arson but case cannot proceed further) – 178 of the 264 were determined to be arson. Methodology verified by Arson database query; case records kept in database. The department has clarified that this measure will only include those fires determined to be arson, and will not include suspicious fires.
3) Number of arson fires in structures	YES	YES	86	Verified by Arson database query; part of total "number of arson fires" above.
4) Total estimated dollar loss due to arson	YES	YES	\$13,688,000	Verified methodology for measure. Reflects best estimates of value according to firefighter or investigator on-scene. Wording is being revised from "total dollar loss due to arson" to "total <i>estimated</i> dollar loss due to arson" to clarify what is being tracked.
5) Percent of arson investigations with determination of cause	YES	YES	60%	Verified methodology for measure as shown at 60%. Originally submitted as "% of arson fires with determination of cause" at 90% for FY 2010-11. Wording is being revised from "% of arson fires with determination of cause" to "% of arson <i>investigations</i> with determination of cause" to clarify what is being measured. Case records kept in database; performance measure includes all case determinations except for "undetermined cause" (e.g., arson, accidental, & natural fires).

Source: Auditor's analysis of data provided by the San José Fire Department

Arson Unit Measures Appear to be Appropriate

The arson-related measures met the City's criteria for being "meaningful" — the measures are understandable to both internal and external stakeholders, and the investigation of arson cases reflects a controllable facet of the department's performance.

The measures also met the City's criteria for being "useful" — the data is based from queries of case files and records kept on an internal database, and reflects both the workload and initial outcomes from the investigative work. The Department dropped 1 of its 7 performance measures for the Arson Unit (because the data was not being tracked). Given the size of the unit and the number of arson-related measures compared to other fire prevention-related measures, the Budget Office and/or the Fire Department may want to consider further reducing the number of arson-related activity and workload highlights and performance measures used for public reporting. For example, among the workload and performance measures presented, only a few may be necessary to establish the annual workload for the Arson Unit (e.g., total number of investigations, number of arson fires, and estimated dollar loss due to arson; see comments above and in Appendix B).

Finally, the arson-related measures also met the City's criteria for being "sustainable"—while there may be opportunities to improve the Arson Unit's database software, the methodologies are based on case-related information (individually run queries of case files, including case status, arson loss cost estimates by investigator, resolution of case) and should remain relatively consistent over time.

Arson Unit Measures Appear to be Accurate

The data is based primarily on database queries run against all arson-related calls and investigations in a given timeframe. We observed the Arson Captain run queries for the "number of arson investigations", which consists of the total number of cases that resulted in the determination of either arson or an accidental fire. The queries were consistent with figures originally provided to the Auditor's Office for the *2010-11 Service Efforts & Accomplishments Report*. In addition, the Department reviews arson-related case statistics because data is also provided to the U.S. Department of Justice, Federal Bureau of Investigation on a monthly basis.

Fire Safety Code Compliance Performance Measures

The Development Service Division of the Bureau of Fire Prevention is responsible for the Fire Safety Code Compliance core service. Staff is comprised of civilian Fire Protection Engineers who work in conjunction with other Planning and Building staff as part of the Development Services Center. The Development Service Division focuses on architectural plan checks and inspections for fire alarms and sprinklers, specifically for new construction and/or improvement projects; inspections for existing buildings and facilities are covered by the Bureau of Fire Prevention.

The Auditor's Office reviewed six performance measures in the Fire Safety Code Compliance core service. The six measures we reviewed met the criteria for being meaningful, useful, and sustainable. In addition, the Auditor's Office verified the accuracy of all six performance measures.

Exhibit 4: Fire Safety Code Compliance Performance Measures

<i>Performance Measure</i>	<i>Meaningful?</i>	<i>Useful?</i>	<i>FY 2010-11</i>	<i>Accurate and Sustainable?</i>
1) Number of new construction and tenant improvement plan checks performed	YES	YES	3,508	Verified per AMANDA report ¹¹
2) Number of new construction and tenant improvement inspections performed	YES	YES	4,190	Verified per AMANDA report
3) Percent of time Fire plan check processing targets are met	YES	YES	87%	Verified by monthly samples of AMANDA reports. Data compiled in AMANDA monthly report; staff working to improve monthly summary.
4) Percent of time Fire inspections scheduled within 24 hours	YES	YES	87%	Verified per AMANDA report; reflects demand for inspections and ability of staff to meet demand
5) Percent of Development process participants rating service as good or excellent	YES	YES	89%	Verified per satisfaction survey conducted by external party (True North Research) for all Development Services partners. Weighted average of customer satisfaction with Fire Department from ministerial and discretionary customers.

¹¹ AMANDA (short for Advanced Maryland Automatic Network Disk Archiver) is the database and tracking system used by Development Services partners (Planning, Building & Code Enforcement, Public Works, and the Fire Department) to track all permit information and activities, including inspections required and completed, and time spent on inspections.

<i>Performance Measure</i>	<i>Meaningful?</i>	<i>Useful?</i>	<i>FY 2010-11</i>	<i>Accurate and Sustainable?</i>
6) Ratio of current year fee revenue to fee program cost	YES	YES	73%* (estimated)	Originally submitted as 100% for FY 2010-11 (development fee program revenues are offset with fee reserves from prior years as needed). The Fire Prevention development program current year fee program revenue cost recovery for FY 2010-11 was 73% as reported in the Annual Fees & Charges Report.

Source: Auditor’s analysis of data provided by the San José Fire Department

* Excludes the use of fee reserves; once use of reserves is incorporated, program reaches 100% cost recovery.

Appropriateness of Fire Safety Code Compliance Performance Measures

The fire safety code compliance-related measures met the City’s criteria for being “meaningful”—the measures clearly define the unit’s primary workload and timeliness of plan checks and inspections performed, which is understandable to both internal and external stakeholders.

The measures also met the City’s criteria for being “useful”—much like the other Development Services partners (Planning, Building and Code Enforcement Department and the Public Works Department), civilian Fire staff in this core service receive and enter customer data into the AMANDA system. Project plans are typically submitted to the Development Services Center, which then creates individual processes for each Development Services partner, including Fire, depending on the type and scope of project. Fire Safety Code Compliance staff receives project plans for review. The AMANDA system tracks customer development plans throughout the review process. Fire staff is able to update on AMANDA when plan reviews have been completed, as well as when follow-up inspections need to be scheduled.

Finally, the code compliance-related measures also met the City’s criteria for being “sustainable” — the data is managed exclusively within the AMANDA system, and summary reports for both Fire plan checks and development inspections are available to track and report on unit performance. In addition, the Fire summary reports were created based on similar reports being generated by the Building Division. Development Services also has dedicated IT staff to help support AMANDA users and report functions.

Accuracy of Fire Safety Code Compliance Performance Measures

At the time of our review, the newly promoted civilian Division manager was in the process of being trained on how to run AMANDA reports by a former Fire Safety Code Compliance staff member who had since been transferred back to the Planning, Building & Code Enforcement Department; the new Division manager’s prior experience with AMANDA only required him to enter and update project data into the AMANDA system.

The Auditor's Office observed staffing running the AMANDA summary reports for FY 2010-11 and generated nearly similar figures as those previously submitted to the Auditor's Office for the *2010-11 Service Efforts & Accomplishments Report*. In addition, Division staff provided a sample report for Plan Check processing targets for the month of October 2010; these figures matched the month-by-month data summary previously compiled by staff when submitting data for the *2010-11 Service Efforts & Accomplishments Report*.

Improving the Accuracy of Reported Performance Information

At the time of the review and validation process, the Auditor's Office found that the Department lacked documentation of its methodologies for gathering and computing the performance measures that it compiles for inclusion in the annual operating budget and Service Efforts and Accomplishments report. While the Department recently produced written instructions for running FireHouse reports for many of their key emergency response-related performance measures (e.g., # of emergency incidents, percent of time that initial Fire unit responds within 8 minutes of an emergency 9-1-1 call), the Department did not have similar documentation available to support their other key performance measures.

Of particular concern, we found that the Bureau of Fire Prevention lacked documentation and/or the analytical support needed to provide documentation or methodologies for much of the FY 2010-11 performance data that was previously submitted for the Service Efforts & Accomplishments Report and the City's Operating Budget. In addition, interviews with Bureau staff revealed an overall inability to report aggregate figures for the unit without the previous analyst's assistance. As mentioned earlier, BFP staff indicated that they were dependent upon their analysts to produce the performance statistics for the unit since FireHouse did not have reports tailored for some of these purposes. The Department was able to provide FY 2010-11 figures more consistent with prior year data submissions by briefly bringing back a former Senior Analyst to help explain and document the methodologies and queries used, and to provide guidance to remaining staff.

BFP staff also reported that due to budget and time constraints, FireHouse training was limited to data entry and some basic searches by individual inspectors to help find and update information on various occupancies and facilities. While day-to-day activities can be tracked via employee time cards, the Department cannot easily or consistently track how many actual inspections or investigations have been completed in a given time period, nor disaggregate between types of facilities inspected or re-inspections. Without a consistent methodology for preparing performance measures—including the measure's meaning, data source, and how it is calculated—it is difficult to assess the usefulness and reliability of the performance data.

Recommendation #1: For those performance measures that it will continue to track, the Fire Department should document methodologies for calculating measures. In particular, the Bureau of Fire Prevention should document its methodologies for calculating and reporting key performance measures, including but not limited to measures for internal day-to-day management and public reporting.

Reassessing Which Metrics Should be Reported

As stated in the Auditor’s report titled *Performance Management and Reporting in San José: A Proposal for Improvement*, in order to ensure that performance measures remain meaningful, useful, and sustainable, the measures must be consistently reviewed against the City’s criteria of being meaningful, useful, and sustainable. Since the City’s Annual Operating Budget represents one example of a high-level public report, any performance measures included in the Budget should be appropriate for a public audience. However, having too many measures in one place can be overwhelming, especially for the public who may not be as familiar with a department’s various services. As performance management literature indicates, too many performance measures can lead to “more confusion or ‘noise’ than useful data”.

During our review and validation process and using the Budget document as a starting point, the Auditor’s Office discussed with the Fire Department which measures were the most important or meaningful for both day-to-day management as well as for high-level public reporting. While the Auditor’s Office did not review some measures for appropriateness and accuracy, the Fire Department should review all of its available performance measures and determine which ones are the most important to monitor and track both internally and externally. Similarly, the Fire Department and the Budget Office should continue to consider whether or not all of the measures currently presented in the Budget document are absolutely necessary for public reporting.

Recommendation #2: The Fire Department should continue to review – by core service – its performance measures and determine which are most important to monitor and track on an ongoing basis for internal use, management purposes, and for public reporting.

Using Data to Improve Performance

During the review and validation process, the Auditor’s Office noted that the use of performance data within the Fire Department varied across core services. While emergency response (field operations) and fire safety code compliance

(development services) data were available for review internally on demand, summary data on fire prevention was generally unavailable during the majority of our review (see Fire Prevention section) and did not appear to be routinely reviewed by management. The lack of a dedicated BFP analyst was cited by the Department as the primary reason why fire prevention data was unavailable; however, it is unclear if and how such data was being used outside of submitting year-end data to the Budget Office once a year for public reporting. While annual reporting through the Budget and/or the annual *Service Efforts and Accomplishments Report* can be considered to be one method of measuring performance, it does not capitalize on opportunities for management to improve the organization by analyzing performance data.

In *Performance Management and Reporting in San José: A Proposal for Improvement*, the Auditor's Office suggested that the City Manager's Office work with City departments to develop a performance *management* system in which 1) ongoing periodic meetings to discuss performance measures would be held, which 2) included appropriate management and 3) used performance data to help analyze past performance and establish performance objectives moving forward. The Fire Department could benefit from implementing a similar performance management system.

Recommendation #3: The Fire Department should assess—by core service—how performance data can be used by management and staff on an ongoing basis to help analyze past performance, establish next performance objectives, and examine overall performance strategies.

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Conclusion

The City Auditor's Office thanks the San José Fire Department for their input and cooperation. We have verified the performance measures as indicated above, and make the following recommendations to improve the accuracy and usefulness of the Department's performance measures.

RECOMMENDATIONS

Recommendation #1: For those performance measures that it will continue to track, the Fire Department should document methodologies for calculating measures. In particular, the Bureau of Fire Prevention should document its methodologies for calculating and reporting key performance measures, including but not limited to measures for internal day-to-day management and public reporting.

Recommendation #2: The Fire Department should continue to review—by core service—its performance measures and determine which are most important to monitor and track on an ongoing basis for internal use, management purposes, and for public reporting.

Recommendation #3: The Fire Department should assess—by core service—how performance data can be used by management and staff on an ongoing basis to help analyze past performance, establish next performance objectives, and examine overall performance strategies.

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Appendix A

Definitions of Meaningful, Useful, and Sustainable

Investing in Results (IIR) Criteria for Selecting Performance Measures	
Meaningful	<ul style="list-style-type: none">• A measure must be understandable to internal and external stakeholders.• A measure must be based on goals or objectives related to an organization's mission or purpose.• A measure must be focused on a controllable facet of performance.
Useful	<ul style="list-style-type: none">• A measure must be based on reliable data.• A measure must accurately assess performance.• A measure must be comparable to other periods or targets.• A measure must be reported at the appropriate level and to the appropriate audience (i.e. high-level measures should be included in high-level reports, certain measures may be important for management decision making and others for public accountability purposes, and so on).
Sustainable	<ul style="list-style-type: none">• The value of the data must meet or exceed the effort to collect the data.

Appendix B

Fire Department Performance Measures

Comparison of performance measures presented in the City's Operating Budget, the annual Service Efforts & Accomplishments Report, and whether they were audited as part of this review.

Performance Measures from FY 2011-12 Adopted Operating Budget	Measure in SEA 2010-11?	Included in Audit Review? (comments)
EMERGENCY RESPONSE		
Performance Measures		
% of fires contained:		
- in room of origin	YES	YES
- in structure of origin	YES	YES
% of emergencies (fire, medical and other) handled by units assigned to district	YES	YES
% of hazardous material releases contained to property of origin by Hazardous Incident Team	NO	NO (data not available at the time of our review)
- Total #	NO	NO (data not available at the time of our review)
% of Supplemental Transport Ambulance Resource (STAR) responses resulting in patient transport	NO	NO (performance measure is being deleted as the STAR program will be discontinued in July 2012 and replaced by the Squad Car Units pilot program)
% of City employees trained in the Standardized Emergency Management System (SEMS) and National Incident Management System (NIMS):		
- Senior Staff	NO	NO (data not available at the time of our review)
- All other City employees	NO	NO (data not available at the time of our review)
Average cost of emergency response (budget/# of emergency responses)	NO	YES (used actual expenditures instead of estimated)
% of time the initial responding unit arrives within 8 minutes after 9-1-1 call is received (34 stations)	YES	YES
>=80% (meet target)	YES (in chart form)	NO
>=70%, <80%	YES (in chart form)	NO
<70%	YES (in chart form)	NO
% of time second response unit arrives within 10 min. after 9-1-1 call is received	YES	YES
Activity & Workload Highlights		
# of emergencies	YES (clarified as number of emergency responses)	YES
Fire emergencies	YES	YES

Performance Measures from FY 2011-12 Adopted Operating Budget	Measure in SEA 2010-11?	Included in Audit Review? (comments)
- structure fires	NO	NO (included in total above)
- vehicle fires	NO	NO (included in total above)
- wildland fires	NO	NO (included in total above)
- other fires	NO	NO (included in total above)
Medical emergencies	YES	YES
Other emergencies	YES	YES
# of non-emergency responses	YES	YES
# of Supplemental Transport Ambulance Resource (STAR) dispatches	NO	NO (performance measure is being deleted as cited above)
# of STAR transports	NO	NO (see above)
# of STAR patients	NO	NO (see above)
Total property fire loss	NO	YES (wording is being revised to "total estimated property fire loss" to clarify what is being tracked)
Total number of EOC activations	NO	NO (performance measure is being deleted as any activation is rare and publicly announced)
FIRE PREVENTION		
Performance Measures		
% of arson investigations forwarded to District Attorney for prosecution - Total #	NO	NO (performance measure is being deleted as the data was not being tracked)
% of arson fires with determination of cause	NO	YES (performance measure is being revised "% of arson fires with determination of cause" to "% of arson investigations with determination of cause" to clarify what is being measured)
% of occupancies not requiring follow-up inspections	NO	YES (wording is being changed from "percent of occupancies not requiring follow-up inspections" to "% of inspections not requiring a follow-up inspection" to clarify what is being measured)
% of occupancies receiving an inspection: - State-mandated - Non-mandated	YES (estimated) YES (estimated)	YES YES
% of code violation complaint investigations initiated within 1 week	YES	YES
Ratio of estimated current year fee revenue to fee program cost	NO	YES (referring to Fees & Charges or other sources for "actual" #'s and %'s)
Activity & Workload Highlights		
Total dollar loss due to arson	YES	YES (wording is being revised to clarify "total estimated dollar loss due to arson")

Performance Measures from FY 2011-12 Adopted Operating Budget	Measure in SEA 2010-11?	Included in Audit Review? (comments)
Arson fires per 100,000 populations	NO	NO
# of investigations resulting in arson determination	YES	YES (methodology has been clarified and will only include arson fires; previously reported figures included suspicious fires – cases where there was not enough evidence/leads to pursue arson)
Total # of arson fires in structures	YES	YES
# of arson investigations	YES	YES (wording is being revised to "# of investigations conducted by the Arson Unit" to clarify what is being tracked)
Plan Reviews performed (special events)	NO	YES
# of initial inspections conducted by Firefighters (State mandated)	YES	YES
# of initial inspections conducted by BFP staff: - State mandated - Non-mandated	YES (combined) YES (combined)	YES YES
# of initial inspections conducted with code violations: - State mandated - Non-mandated	NO NO	YES (wording is being revised to "# of re-inspections" to clarify what is being tracked; reviewed by Auditor as part of inspection queries above) YES (wording is being revised to "# of re-inspections" to clarify what is being tracked; reviewed by Auditor as part of inspection queries above)
Total annual permitted occupancies: - Hazardous Materials - Fire Safety	NO NO	YES (count as of beginning of FY 2010-11) YES (count as of beginning of FY 2010-11)
# of complaints investigated	YES	YES
FIRE SAFETY CODE COMPLIANCE		
Performance Measures		
Ratio of estimated current year fee revenue to fee program cost	YES	YES (referring to Fees & Charges for actual #'s and %'s)
% of Fire Plan Checks completed within established time targets	YES	YES
% of Fire inspections within 24 hours	YES	YES
% of Development process participants rating service as good or excellent	NO	YES
Activity and Workload Highlights		
# of new construction and tenant improvement	YES	YES

Performance Measures from FY 2011-12 Adopted Operating Budget	Measure in SEA 2010-11?	Included in Audit Review? (comments)
inspections performed		
# of new construction and tenant improvement plan checks performed	YES	YES
<u>STRATEGIC SUPPORT</u>		
<i>Performance Measures</i>		
# of Council Districts with at least 5 community members graduated from the 20-hour San Jose Prepared! Course each year	NO	NO
<i>Activity and Workload Highlights</i>		
# of residents graduating 20-hour San Jose Prepared! Training		
- cumulative	NO	NO (performance measure is being deleted since it did not provide meaningful data that would assist in evaluating the effectiveness of the core service)
- annual	YES (consolidated and simplified to "# of San José Prepared! Graduates" for 20-hour and 2-hour courses, respectively)	NO
# of residents attending 2-hour San Jose Prepared! Training (short course)	YES (see above)	NO
# of residents attending San Jose Prepared! Train-the-trainer classes	NO	NO (performance measure is being deleted since the program was discontinued in FY 2010-11)
Emergencies which required Emergency Operations Center activation or City-wide coordination	NO	NO (performance measure is being deleted as any activation is rare and publicly announced)
<u>PUBLIC SAFETY CSA</u>		
Civilian Fire Deaths per Million Population		
SAN JOSÉ	YES	NO
Western U.S.	YES	NO
United States	YES	NO
Civilian Fire Injuries per Million Population		
SAN JOSÉ	YES	NO
Western U.S.	YES	NO
United States	YES	NO

Memorandum

TO: Public Safety, Finance and
Strategic Support Committee

FROM: William McDonald
Fire Chief

SUBJECT: SEE BELOW

DATE: May 9, 2012

Approved:

Edward Shikada /es

Date:

5/10/12

SUBJECT: RESPONSE TO 2012 AUDIT ON FIRE DEPARTMENT PERFORMANCE MEASURES

RECOMMENDATION

It is recommended that the Public Safety, Finance and Strategic Support Committee accept this report as a response to the 2012 Audit on Fire Department Performance Measures.

BACKGROUND

The Fire Department has reviewed the 2012 audit entitled *REVIEW OF FIRE DEPARTMENT PERFORMANCE MEASURES: Improving the Usefulness of Data* and is in overall agreement with the three recommendations presented in the report. Staff is currently in the process of partially or fully implementing the recommendations presented in the audit. In addition, staff has continued its review of the performance data and has new information that was not available when the audit was completed.

Following are the Fire Department responses to each recommendation in the Audit. The additional performance data compiled after the completion of the audit is also discussed.

City Auditor's Recommendations And Fire Department Responses

Recommendation #1: *For those performance measures that it will continue to track, the Fire Department should document methodologies for calculating measures. In particular, the Bureau of Fire Prevention should document its methodologies for calculating and reporting key performance measures, including but not limited to measures for internal day-to-day management and public reporting.*

Fire Department Response:

The Fire Department agrees with this recommendation. Actions are in process to document the methodology of all performance measures utilized by the Department and the documentation of many emergency response performance measurements has already been completed. Additionally, staff is ensuring that a clear definition of what is being measured and/or counted with respect to types of occupancies and their designations (i.e., State mandated inspections, high rise buildings, etc.) further clarifying the information for future analysis.

Recommendation #2: *The Fire Department should continue to review – by core service – its performance measures and determine which are most important to monitor and track on an ongoing basis for internal use, management purposes, and for public reporting.*

Fire Department Response:

The Fire Department agrees with this recommendation. Fire Department staff consulted with the City Auditor and the City Manager's Budget Office in evaluating performance measures and their relative usefulness. Fire Department staff is considering rewording or clarifying some measures, adding measurements for internal monitoring purposes, separating some measurements that are currently aggregated, identifying some for internal use only and eliminating those determined to be of very limited value.

Recommendation #3: *The Fire Department should assess – by core service – how performance data can be used by management and staff on an ongoing basis to help analyze past performance, establish next performance objectives, and examine overall performance strategies.*

Fire Department Response:

The Fire Department agrees with this recommendation. Currently, significant use is made of emergency response measurements (both published and internal). However, the Department has experienced difficulties in compiling useful performance data for the Fire Prevention function to help manage this operation. The limitations with the current systems used to capture the Fire Prevention data along with reduced staffing and limited training on these systems have resulted in consistency issues with the reported data. In addition, because of the turnover in personnel in the Fire Prevention Bureau, Inspectors as well as support staff, there are some concerns in terms of the accuracy of information and the consistency of data entry and resulting report generation. With the limited resources available, the Fire Department will continue to pursue system improvements and will work with staff to ensure consistency in data reporting.

Updated Performance Data

The Fire Department has compiled or updated performance data that was not yet available when the audit was completed.

- Emergency response data related to the number of hazardous materials releases abated by the Fire Department during Fiscal Year 2010-2011 was not available to the Audit Team in time to be included in their report. Records and fire reports indicate that for FY 2010-2011, the Department responded to 289 hazardous materials releases during this period (Audit page 7, performance measure 13).

CONCLUSION

The Fire Department is in full agreement with the recommendations of the Audit. Data and information obtained by performance measurements assists the Department in improving how services are provided to the community.

While the Fire Department will continue to develop strategies to implement these recommendations, there are some system and staffing challenges associated with gathering performance data in some areas, particularly Fire Prevention. While in many cases report mapping has been implemented, more work is needed. Additionally, given the limited Fire Department technical support staffing, many software programs that the Fire Department utilizes, or intends to utilize, to provide management information have not yet been fully implemented or optimized.

Department staff would like to thank the Office of the City Auditor and staff for their efforts in assisting the Department in identifying methods for improving critical processes.

/s/

WILLIAM MCDONALD, Fire Chief

For questions, please contact William McDonald, Fire Chief, at 408-794-6951.

