CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

Memorandum

TO: MAKING GOVERNMENT WORK BETTER COMMITTEE

FROM: JEFFREY L. CLET
LARRY D. LISENBEE

SUBJECT: **SEE BELOW**

DATE: January 10, 2006

Approved

Date

SUBJECT: ANNUAL REPORT ON FIRE DEPARTMENT VACANCY AND ABSENCE RATES AND THEIR IMPACT ON OVERTIME

PURPOSE

In March 2005, the Fire Department and City Manager's Budget Office provided a comprehensive report to the Making Government Work Better (MGWB) Committee in response to the City Auditor's April 2001 "Audit of the City of San José Fire Department's Overtime Expenditures" (Overtime Audit). As part of this March 2005 report, Fire Department staff committed to return to the MGWB Committee on an annual basis with a report on Fire Department absence and vacancy rates for the prior completed fiscal year to ensure that overtime funding and relief staffing levels are annually measured, funded, and managed.

RECOMMENDATION

Staff recommends that the MGWB Committee accept this annual report and direct Fire Department staff to return to the MGWB Committee upon the conclusion of the ongoing contract negotiations between the City and Local 230 with an update on the status of Overtime Audit Recommendations 8 and 9 (See Attachment No. 1).

BACKGROUND

Over the last several years, the Fire Department has been unable to bring in its overtime expenditures at or under its annual overtime budget. Concern regarding the Fire Department's over-expenditures led to the release of the Overtime Audit.

In March 2005, the Fire Department and City Manager's Budget Office presented a comprehensive report to the MGWB Committee to address Overtime Audit Recommendations 1 through 7. The report was accepted by the MGWB Committee and referred by the MGWB Committee to the City Council for final review. As a result of this March 2005 report and the comprehensive analytical data that it provided, the Fire Department's overtime Base Budget was adjusted upward by $3.1 million as part of the Fiscal Year 2005/06 Operating Budget process.

Since then, staff from the Fire Department and City Manager's Budget Office have been closely monitoring the Fire Department's Fiscal Year 2005/06 overtime budget. With six months of the current fiscal year now completed, staff is pleased to report that the Fire Department's overtime budget for Fiscal Year 2005/06 is tracking on-budget for the first time in over 10 years.

ANALYSIS

To meet daily minimum staffing levels established in the "Memorandum of Agreement Between the City of San José and the International Association of Firefighter's Local 230" (MOA), the Fire Department must staff 193 line positions in the ranks of battalion chief, fire captain, fire engineer, firefighter-paramedic and firefighter-EMT. This required staffing level is commonly referred to as daily minimum staffing (DMS). On a daily basis, the DMS level has to be supplemented with relief personnel and/or off-duty personnel who are brought back to work on overtime to back-fill DMS assignments due to absences and vacancies.

For operational effectiveness as well as to reduce costs, additional relief staff positions exist in addition to the numbers required to meet DMS levels to provide DMS back-fill. This relief staffing model minimizes the impact on off-duty line personnel who would otherwise be required to be held-over or to return to work on their days-off to cover the DMS position. Currently, this model also provides cost efficiencies for the City, as the salary, benefit, and retirement costs of line positions, depending on rank, are 9% to 15% less costly than the cost of overtime at one-and-one-half times the salary of the rank.

Absence Rates

With the implementation of TeleStaff (a staffing and data collection software program that allows the Fire Department to fill its daily minimum staffing needs and gather related data), staff is able to track absences by rank and type (vacation, sick, disability, modified duty, compensatory time, funeral, and jury duty). Using historical data from Fiscal Year 2004/05, the Fire Department's line personnel in the ranks of battalion chief, fire captain, fire engineer, firefighter-paramedic and firefighter-EMT were absent a total of 287,928 hours between July 1, 2004 and June 30, 2005. The absence type is shown below by rank:

Chart No. 1
Absence Hours by Type & Rank - Fiscal Year 2004/05

Rank	Fiscal Year 2004/05 Absence Hours By Type							
	Vacation	Sick Leave	Disability	Modified Duty	Comp. Time	Funeral Leave	Jury Duty	Total Hours
Battalion Chief	3,755	1,916	3,369	336	582	48	5	10,011
Fire Captain	35,991	14,924	20,237	8,530	1,405	1,020	287	82,394
Fire Engineer	44,058	21,037	23,441	12,471	1,217	1,416	67	103,707
Firefighter								
Firefighter-Paramedic	24,615	14,334	11,230	5,717	664	916	181	57,657
Firefighter-EMT	14,579	8,492	6,654	3,387	397	548	102	34,159
Subtotal-Firefighter	39,194	22,826	17,884	9,104	1,061	1,464	283	91,816
Total Absence Hours	122,998	60,703	64,931	30,441	4,265	3,948	642	287,928

This absence rate translates into 425 absence hours per line person, per year. This is a decrease of 16 absence hours per line person as compared to the 441 absence hours per line person during Fiscal Year 2003/04. Although these hours of absence are not always taken in full-shift (24-hour) increments, this Fiscal Year 2004/05 absence level is equivalent to approximately 18 shifts per year per line person.

As shown below, when the Fiscal Year 2004/05 absent hours are translated into an absence rate by rank, the weighted average absence rate for line personnel in the ranks of battalion chief, fire captain, fire engineer, and firefighter is 14.5%.

Chart No. 2
Absence Rates by Rank - Fiscal Year 2004/05

Rank	Line Positions	Annual Hours Worked*	Absence Hours	Absence Rate**
Battalion Chief	18	52,560	10,011	19.0%
Fire Captain	160	467,200	82,394	17.6%
Fire Engineer	228	665,760	103,707	15.6%
Firefighter				
Firefighter-Paramedic	147	429,240	57,657	13.4%
Firefighter-EMT	125	365,000	34,159	9.4%
Subtotal	272	794,240	91,816	11.6%
Average	***678***	***1,979,760***	***287,928***	***14.5%***

* Based on 2,920 hours worked per year
** Numbers rounded to the nearest tenth

The table below provides a comparison, by rank, of the absence rates for Fiscal Year 2003/04 and 2004/05. Overall, absence hours in Fiscal Year 2004/05 fell by 3.8% when compared to Fiscal Year 2003/04. The most notable decrease occurred in the rank of firefighter-EMT.

Chart No. 3
Comparison of Absence Rates by Rank
Fiscal Year 2003/04 to Fiscal Year 2004/05

Rank	Fiscal Year 2003/04	Fiscal Year 2004/05	Variance Increase/ (Decrease)	% Change Increase/ (Decrease)*
Battalion Chief	7,523	10,011	2,488	33.1%
Fire Captain	83,831	82,394	(1,437)	(1.7)%
Fire Engineer	105,104	103,707	(1,397)	(1.3)%
Firefighter				
Firefighter-Paramedic	55,475	57,657	2,182	3.9%
Firefighter-EMT	47,256	34,159	(13,097)	(27.7)%
Subtotal	102,731	91,816	(10,915)	(10.6)%
Average	***299,189***	***287,928***	***(11,261)***	***(3.8)%***

* Numbers rounded to the nearest tenth

The total absence hours per year is variable depending on several factors including the frequency and nature of job-related injuries and the seniority of line personnel who accrue more vacation time off. Now that the data collection tools are available, staff tracks absence rates on a pay period basis and will continue, on an annual basis, to evaluate absence rates to ensure the most cost efficient and operational effective means for developing a relief-to-overtime ratio.

Vacancy Rates

Vacancies have the same impact absences do on overtime costs. Vacancies occur for two reasons – retirement from the organization and separation from employment.

In Fiscal Year 2004/05, the Fire Department's emergency response line positions were vacant for a total of 142,576 hours as compared to 107,640 hours for Fiscal Year 2003/04. These vacancy hours for Fiscal Year 2004/05 are shown below by rank:

Chart No.4
Vacancy Hours and Rate by Rank - Fiscal Year 2004/05

Rank	Line Positions	Annual Hours Worked*	Vacancy Hours	Vacancy Rate**
Battalion Chief	18	52,560	784	1.5%
Fire Captain	160	467,200	21,504	4.6%
Fire Engineer	228	665,760	42,448	6.4%
Firefighter				
Firefighter-Paramedic	147	429,240	48,886	11.4%
Firefighter-EMT	125	365,000	28,954	7.9%
Subtotal	272	794,240	77,840	9.8%
Total	***678***	***1,979,760***	***142,576***	***7.2%***

* Based on 2,920 hours worked per year
** Numbers rounded to the nearest tenth

When these vacancy hours are translated into a vacancy rate, as shown above, the weighted average vacancy rate for DMS line personnel is 7.2%.

The table below provides a comparison, by rank, of the vacancy rates for Fiscal Year 2003/04 and 2004/05. Overall, vacancy hours increased by 32.5%. However, vacancy hours declined in each rank except firefighter-paramedic and firefighter-EMT. This is due to the large number of promotions that occurred early in Fiscal Year 2004/05 and the vacancies these promotions created in the ranks of firefighter-paramedic and firefighter-EMT. To address these vacancies, the Fire Department held an August 2005 Recruit Academy and has two Recruit Academies scheduled for 2006 (April and August).

Chart No. 5
Comparison of Vacancy Rates by Rank
Fiscal Year 2003/04 to Fiscal Year 2004/05

Rank	Fiscal Year 2003/04	Fiscal Year 2004/05	Variance Increase/ (Decrease)	% Change Increase/ (Decrease)*
Battalion Chief	2,920	784	(2,136)	(73.2)%
Fire Captain	28,224	21,504	(6,720)	(23.8)%
Fire Engineer	51,968	42,448	(9,520)	(18.3)%
Firefighter				
Firefighter-Paramedic	15,404	48,886	33,482	217.4%
Firefighter-EMT	9,124	28,954	19,830	217.3%
Subtotal	24,528	77,840	53,312	217.4%
Total	***107,640***	***142,576***	***34,936***	***32.5%***

* Numbers rounded to the nearest tenth

In summary, based on the actual data from TeleStaff for Fiscal Year 2004/05, the total absence and vacancy rates for line personnel is provided below:

Chart No. 6
Absence & Vacancy Hours and Rate by Rank – Fiscal Year 2004/05

Rank	Absence Hours	Vacancy Hours	Hours Requiring Back-Fill	Total Absence & Vacancy Rate*
Battalion Chief	10,011	784	10,795	20.5%
Fire Captain	82,394	21,504	103,898	22.2%
Fire Engineer	103,707	42,448	146,155	22.0%
Firefighter				
Firefighter-Paramedic	57,657	48,886	106,543	24.8%
Firefighter-EMT	34,159	28,954	63,113	17.3%
Subtotal	91,816	77,840	169,656	21.4%
Total	***287,928***	***142,576***	***430,504***	***21.7%***

* Numbers rounded to the nearest tenth

While the total number of absence and vacancy hours have changed from Fiscal Year 2003/04 to Fiscal Year 2004/05, the total number of hours requiring backfill has increased by 23,673 hours. The following comparative chart reflects the total hours requiring backfill for Fiscal Year 2003/04 and Fiscal Year 2004/05:

Chart No. 7
Comparison of Hours Requiring Back-Fill
Fiscal Year 2003/04 to Fiscal Year 2004/05

Rank	Fiscal Year 2003/04	Fiscal Year 2004/05	Variance Increase/ (Decrease)	% Change Increase/ (Decrease)*
Battalion Chief	10,443	10,795	352	3.4%
Fire Captain	112,055	103,898	(8,157)	(7.3)%
Fire Engineer	157,074	146,155	(10,919)	(7.0)%
Firefighter				
Firefighter-Paramedic	70,879	106,543	35,664	50.3%
Firefighter-EMT	56,380	63,113	6,733	11.9%
Subtotal	127,259	169,656	42,397	33.3%
Total	***406,831***	***430,504***	***23,673***	***5.8%***

* Numbers rounded to the nearest tenth

Now that the data collection tools are available, staff tracks vacancy rates on a pay period basis and will, on an annual basis, evaluate vacancy rates to ensure the most cost efficient and operational effective means for developing a relief-to-overtime ration.

Staffing Levels and Anticipated Retirements

The Fire Department has made a concerted effort over the last two years to promote and fill vacant positions. In 2005, the Fire Department, in coordination with the Employee Services Department, conducted promotional testing processes for each of the DMS ranks. The Department anticipates making promotions to all eligible vacant positions by March 2006.

The following table details the currently authorized and filled staffing levels and current number of vacancies as of December 2005 for battalion chief, fire captain, fire engineer, firefighter-paramedic, and firefighter-EMT:

Chart No. 8
Current Fire Department Staffing Levels
As of Pay Period 25 – Calendar Year 2005

Rank	Authorized Positions FY 2004/05*	Current Vacancies Through February 2005
Assistant Fire Chief	1	0
Deputy Fire Chief	4	0
Battalion Chief**	24	1
Fire Prevention Inspector	11	6
Fire Captain	172	15
Fire Engineer	228	18
Firefighter	272	5
EMT	125	4
Paramedic	147	1
Total	712	45

** This includes all safety personnel, including those in line and administrative roles*
*** Includes one Battalion Chief over-strength position to staff UASI grant-funded position.*

Based on the Department's current 45 position vacancies, the Fire Department is proceeding with the recruitment and selection process necessary to commence a Firefighter Recruit Academy in April 2006 and August 2006. Fire Prevention Inspectors are included as part of this analysis because retirements in this classification could also create vacancies as a result of promotions in the firefighter ranks.

With regard to projections of near-term and long-range vacancies, staff has analyzed the Fire Department's current line staff's years of service and age ranges. In summary, staff estimates, through Calendar Year 2007, and based on those employees who would reach age 50 with 25 or more years of service, the following additional vacancies could occur:

Rank	
Assistant Fire Chief	1
Deputy Fire Chief	3
Battalion Chief	9
Fire Captain	31
Fire Inspector	1
Fire Engineer	40
Firefighter (Paramedic & EMT)	18
Total Potential Retirements	103

This data suggests that in addition to the 45 current vacancies, an additional 103 members of the Fire Department will be, over the next two years, within the window of years of service and age when we typically see members of the Fire Department file for retirement. In order to address additional vacancies, the Fire Department anticipates the need to conduct two Fire Recruit Academies in 2006 and two Fire Recruit Academies in 2007.

Relief Staffing

As discussed earlier, when a DMS position is unfilled, either due to an absence or a vacancy, to meet DMS rules, the position must be back-filled. There are three ways in which this can occur: with overtime and/or relief personnel or by higher-classing someone in a lower rank to back-fill the position.

On shifts where there are 193 line personnel or more available to work, someone in a rank lower than the rank where the absence or vacancy occurs could work in the higher rank to back-fill the position. In other words, if an absence or vacancy occurs in the rank of fire captain or fire engineer, a firefighter-paramedic or firefighter-EMT could work higher-class to back-fill the absence or vacancy. This practice accomplishes two things. First, it allows the Fire Department to back-fill the position using an incrementally less expensive rank and second, provides career development opportunities for the individual who is working in the higher rank. This practice has a relatively minimal impact on the overall cost of DMS and has been factored into the overall DMS analysis.

On shifts where there are less than 193 line personnel available to work, overtime or relief personnel must be used to meet the DMS levels. To determine the most cost effective and operationally efficient method to back-fill DMS absences and vacancies, the following considerations were made:

- Comparison of overtime to relief position costs;
- Evaluation of the impact of increased overtime activity on work-related injury rates; and,
- Identification of the nature of the absence - partial or whole shifts - absences requiring only partial coverage, such as three-hours off for a doctor’s appointment versus vacations, illness, or injury when personnel are absent for one or more full shifts.

Because relief positions cost the City approximately 9-15% less than overtime, depending on rank, and within certain limits to be discussed shortly, currently the least costly approach for meeting DMS is back-fill for absences and vacancies by using relief positions. The art of determining the right mix of relief and overtime is based on how absences and vacancies occur.

Absences and vacancies vary throughout the year depending on variables such as when vacation leave is used, when employees sustain work-related injuries, and when employees retire. To determine the correct relief staffing model, absence and vacancy hours were calculated using data from Fiscal Year 2004/05 for each rank, per pay period. To ensure that there were not too many relief positions staffed at periods of low absence or vacancy rates, the relief model is based on using relief positions to back-fill absences and vacancies when there are the fewest hours of absence and vacancy during the year. This is referred to as the baseline.

There is a different baseline for each rank. This is largely due to the total number of positions per rank and the years of seniority per rank. The baseline is the lowest number of absence hours used by the personnel in each rank. The hours may vary due to the number of personnel in each rank and because personnel in higher ranks generally have more seniority and more vacation hours available. The baseline was set at the fewest hours used.

In summary, the baseline for each of the ranks is as follows:

- Battalion Chief – 222 absence/vacancy hours per pay period
- Fire Captain – 3,144 absence/vacancy hours per pay period
- Fire Engineer – 4,421 absence/vacancy hours per pay period
- Firefighter-Paramedic – 2,680 absence/vacancy hours per pay period
- Firefighter-EMT – 1,587 absence/vacancy hours per pay period

Once the baseline is established, based on that year's specific data, it can then be determined, by rank, how many relief positions should be staffed and how much additional overtime funding is required to fill the remaining absence and vacancy hours above the baseline.

Currently, the Fire Department has a total of 99 relief line personnel to back-fill absences and vacancies. The chart below shows the existing number of relief positions per rank:

Chart No. 10
Daily Minimum Staffing and Relief Staffing – By Rank

Rank	Total Minimum Staffing Positions	Total Existing Relief Positions	Total Line Positions
Battalion Chief	15	3	18
Fire Captain	132	28	160
Fire Engineer	204	24	228
Firefighter-Paramedic	126	21	147
Firefighter – EMT	102	23	125
Total	**579**	**99**	**678**

For the past 14 years, the Fire Department has used the relief staffing formula developed in 1992. Relief staffing levels will continue to be evaluated on an annual basis to ensure operational effectiveness and fiscal efficiencies. The Fiscal Year 2003/04 and 2004/05 data indicates that the relief staffing levels, if adjusted to the current base-line, could be adjusted as follows:

Chart No. 11
Relief Staffing Levels

Rank	**Total Existing Relief Positions**	**Adjustment Per Baseline Data Fiscal Year 2004/05 Increase/(Decrease)**	**Total Relief Positions**
Battalion Chief	3	0	3
Fire Captain	28	0	28
Fire Engineer	24	15	39
Firefighter-Paramedic	21	(9)	12
Firefighter – EMT	23	3	26
Total	**99**	9	108

Due to the dynamic nature of the absence and vacancy rates, staff will track carefully the trends to evaluate whether or not the relief staffing levels should be adjusted. As the Fire Department hires new firefighters and promotes current members of the Department into vacancies, it is anticipated that the vacancy and absence rates will stabilize. Staff anticipates that with three years of data (Fiscal Years 2003/04, 2004/05 and 2005/06) it will be able to bring forward recommendations based on the data for any adjustments to relief staffing levels. Any future adjustments to relief staffing levels will be offset by corresponding reduction in overtime funding.

CONCLUSION

The Fire Department renews its commitment to provide the highest quality data and analysis. As it committed to last year in its comprehensive report to the MGWB Committee, the Fire Department will continue to provide on an annual basis a report on staffing levels, absence and vacancy rates, and a forecast of short-term and long-term vacancies.

JEFFREY L. CLET
Fire Chief

LARRY D. LISENBEE
Budget Director

Attachment No. 1
Office of the City Auditor
April 2001 Audit of the City of San José
Fire Department Overtime Expenditures
Audit Recommendations

Recommendation #1 – Ensure that fire personnel that are held over properly document the absence they are covering.

Recommendation #2 – Calculate an absence rate for each rank using the most reliable and accurate absence rate data available for determining SJFD staffing and overtime needs and management reporting purposes.

Recommendation #3 – Analyze vacancy rate data separately for each rank using the most reliable and accurate vacancy rate data available when determining staffing and overtime needs.

Recommendation #4 – Develop procedures to ensure that the correct data and proper adjustments are entered into the PeopleSoft and SEARS systems and designate a staff person to monitor and evaluate the PeopleSoft and SEARS data on a regular basis.

Recommendation #5 - Report to the City Council updated staffing information December of each year including staffing levels and vacancies by rank, the number of personnel on disability and modified duty, and projected short-term and long-term vacancies.

Recommendation #6 – Update its 1992 study regarding the use of relief staff and overtime to meet minimum staffing requirements and annually determine the most efficient and cost effective mix of relief staff and overtime to meet minimum staffing needs.

Recommendation #7 – Review sick leave data to establish benchmarks for sick leave use and identify possible patterns of abuse and take appropriate follow-up actions.

Recommendation #8 – Implement a proactive sick leave reduction program to inform line personnel of the benefits of conserving sick leave and rewarding personnel with perfect attendance.

Recommendation #9 – Evaluate the feasibility of implementing a comprehensive Wellness-Fitness Initiative Program for the SJFD and prepare a budget proposal should the initiative appear cost beneficial.