



Efficiency Study News

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Summary of the June Activities of the LFR Efficiency Study Steering Committee

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Phase I and Phase II Recommendations Report to City Manager

Editor's Note: Each issue of this newsletter is intended to summarize the discussion and progress for implementing a strategic management process for the LFR. Future issues will be published when there is new information to report.

Report of the LFR Steering Committee on OEC Recommendations

Phase I and Phase II Recommendations

The 108 OEC recommendations were divided into three phases. Phase I recommendations were those whose adoption was immediate, cost neutral, and/or could be done with minimal discussion. Phase II recommendations are those that would have an impact on the 2010 budget and/or of high importance as determined by the Steering Committee. Phase III recommendations are all remaining recommendations that are not time critical, can be addressed in future budgets, and of lower priority.

Phase I recommendations and current disposition.

Recommendation 2: Establish a "policy advisory board" that provides ongoing oversight and input to LFR. This was managed by the City of Littleton City Manager and on April 23, 2009 recommended to use the existing partner's budget team and will meet as needed.

Recommendation 5: Very early on in the budgeting process the City needs to actively engage LFPD and HRMD in fiscal discussions. This was managed by the City of Littleton City Manager and on March 31, 2009 implemented the recommendation.

Recommendation 8: Make teamwork a clear expectation for the LFR management team and hold members accountable. This was taken by the Fire Chief and was implemented on December 10, 2008 during an internal meeting with Chief Officers and senior staff.

Recommendation 17: Capture Call Transfer Time. This was assigned to the Communication Center Sub Committee, implemented as stated on March 2, 2009 but is limited by neighboring jurisdiction participation.

Recommendation 22: Modify dispatch procedures to allow the immediate dispatch of LFR units as soon as nature and location of the call is ascertained. The Communication manager implemented this policy on October 13, 2008 and the result was an immediate drop of call turnout time of one minute.

Recommendation 29: The Training Chief and the EMS Chief both need to report directly to the Operations Chief. This was managed by the Fire Chief and implemented on April 1, 2009. The training bureau and the EMS bureau now report to the Operations Division.

Recommendation 30: The Fire Prevention Division should be re-titled the "Fire Prevention and Life Safety" Division or something similar. This was implemented as stated on April 1, 2009 by the Fire Chief.

Recommendation 34: Capture Call Transfer Time. This was assigned to the Communication Center Sub Committee, implemented as stated on March 2, 2009 but is limited by neighboring jurisdiction participation.

Recommendation 35: Modify dispatch procedures: Similar to recommendation 22, this was implemented on October 13, 2008 by the Communications Manager.

Recommendation 36: Capture Calls by District Boundary. This was assigned to the Communications Center Sub-Committee. They concurred with the recommendation and began accumulating the data on April 1, 2009.

Recommendation 37: Re-establish consistent peer and supervisory random call reviews. This was assigned to the Communications Center Sub-Committee and was implemented on March 2, 2009 but is limited by the staffing shortages currently experienced in the Communications Center.

Recommendation 42: The Operations Chief and COL Human Resources Department should continue to collaborate and develop an annual Performance Evaluation that is specific to the job functions and tasks of Operations personnel. This was assigned to the Operations Sub-Committee and was implemented on June 1, 2009. The Operations Chief in conjunction with the Human Resources manager designed new performance evaluations.

Recommendation 44: Increase the first alarm dispatch assignment to business fires to four Engine Companies, one Aerial Company, one Paramedic Ambulance, and one Battalion Chief. Assigned to the Operations Sub-Committee, this was changed via SOP 501D- Unit Responses on December 12, 2008.

Recommendations 55: Re-title the "Fire Prevention" Division to the "Fire Prevention and Life Safety" Division. Similar to Recommendation 30, this was adopted by the Fire Chief as stated on April 1, 2009.

Recommendation 56: Realign the Fire Prevention Division so that the organizational structure includes the Fire Marshal, two Deputy Fire Marshals, two Assistant Fire Marshals, Inspectors and Life Safety Educators. This was adopted as stated by the Fire Chief as stated on April 1, 2009.

Recommendation 71: Realign the organization with both the Training Chief and EMS Chief under the Operations Chief. Similar to Recommendation 29, this was adopted by the Fire Chief on April 1, 2009.

Recommendation 76: Accurately track the training hours of all employees. Assigned to the Training Sub-Committee, it was implemented with the configuration and implementation of Fire Manager RMS and begun on January 1, 2009.

Recommendation 79: As a short term solution OEC recommends that the Fire Training Division relocate to MFTC. Assigned to the Training Sub-Committee this recommendation was adopted as stated on April 1, 2009.

Recommendation 102: LFR actively seek out fire dispatch contracts with other fire departments. Assigned to the Communication Center Sub-Committee this was adopted as stated on March 2, 2009.

Phase II recommendations (ordered by priority)

#1 – Recommendation 28: Consider Full Transport.

It is the unanimous recommendation of the response sub-committee, steering committee, and medical director for Littleton Fire Rescue to adopt full transport as LFR policy. Currently LFR operates in a two tier system thus transferring 36% of our patients to a private ambulance company. Quality of patient care improves as LFR provides a high level of care with seasoned paramedics and EMTs, we have state of the art equipment, a high level of quality assurance/oversight, and LFR has been featured in local, regional and national publications for their life saving skills.

OEC reports, "Four medical units are not adequate to handle the workload and at the same time meet targeted response time standards." And "An opportunity exists for additional revenue from medical transport." They also recommend to, "Field a fifth medical unit on a full time basis. In addition, conduct a thorough analysis of moving toward full transport model that would require seven full-time medical units." And concludes that, "Full transport would increase the quality of services

provided to each entity within LFR jurisdiction, and reduce overall response time."

By adopting full transport as LFR policy continuity of patient care is maintained when the first arriving crews who treat and evaluate the patient then deliver the patient to the hospital. Patient information and treatment plans are often lost or changed as patients are passed from LFR to another transport provider.

The steering committee believes full transport is in the community's best interest as revenue recovery is put back into the community and not into a private corporation.

Full transport will reduce transport time (defined as arrival of the transport unit on scene until arrival at hospital destination). Transport times are reduced for every patient in a single provider system as LFR currently waits on scene for a private ambulance, loading, exchange of patient information. This sometimes causes confusion for the patient and their families.

Adding staff for full transport increases the number of crossed-training dual-role responders trained to handle all community risks/problems thereby increasing public and firefighter safety.

Administration time is reduced by eliminating the auditing of a private service for contractual issues such as response compliance, miscommunications between crews, personnel behavior, dress code, grooming, ambulance inspections, and certificate inspection.

Dr. Gene Eby, Littleton Fire Rescue's medical director says, "LFR delivers a much higher level of patient care than the private ambulances, continuity of patient care has a well known value in successful patient care, the serious errors that occur by fragmenting the care by multiple hand-offs has been demonstrated on several levels, and everyone should be treated uniformly"

The steering committee believes if this recommendation is not adopted that at a minimum that OEC Recommendation #27, *Add a Fifth Medical Unit* be adopted. As EMS call volume is increasing the more effective and efficient use of resources is in a cross-trained dual-role system. The LFR steering committee believes that full transport as LFR policy is in the best interest of the community, best interest of the patient, best interest of the City of Littleton, Highlands Ranch and the Littleton Fire Protection District.

Finances:

OEC Recommendation #27 (Add a Fifth Medic Unit) - \$850,520 staff, rolling stock and equipment first year. \$650,520 annual salary beginning second year.

OEC Recommendation #28 (Consider Full Transport) – Currently being studied by the COL finance department. Available mid-July 2009.

#2 – Recommendation 16: Develop a strategic plan that offers a multi-year goal setting and decision making perspective.

The LFR Steering Committee supports adoption of recommendation 16. A strategic plan is to be used as a guide for the department as LFR strives to meet challenges ahead in the future. The plan should be meaningful and not merely a "wish list" and the plan should be developed and based on input from internal and external stakeholders.

Finances: Minimal

#3 – Recommendations 18 - 21: OEC Recommended Response Time Summary

OEC Recommendation 18 – Dispatch time, OEC recommends that LFR establish a dispatch time goal of 1 minute 90% of the time.

OEC Recommendation 19 - Turnout time, OEC recommends that LFR establish a turnout time goal of 1.3 minutes (1 min. 18 sec.) 90% of the time.

OEC Recommendation 20 - Travel time, urban (COL & LFPD): 5 minutes 90% of time 1st due..., "suburban (HRMD): 6 minutes 90% of time 1st due..., rural areas: 11 minutes 90% of time 1st due...

OEC Recommendation 21 - Response time summary, dispatch time – 1 min urban, suburban, and rural, Turnout Time – 1.3 min (1 min. 18 sec.) urban, suburban, and rural, Travel Time – 5 min urban, 6 min suburban, 11 min rural

The Steering Committee agrees with OEC recommendation 18 that dispatch time goal should be 1 minute 90% of the time. This goal is acceptable and achievable.

The Steering Committee suggests modifying OEC recommendation 19 that LFR establish a turnout time of 1 minute 90% of the time; however LFR must also account for the station alerting time and dispatch airing of the call time. Research demonstrates that when a unit is on the air and goes responding right after the call airing there is an approximate 45 second talking time. West Metro, a leading agency in the southern metro area, also allows 45 seconds for call airing time. Therefore, the Steering Committee turnout time recommendation is 1 minute plus 45 seconds talk time for a goal of 1 minute 45 seconds 90% of the time.

The Steering Committee agrees with the OEC recommended travel time (recommendation 20) for the classifications. However, in looking at the areas the OEC defined the sub-committee believes the classifications are based on subjective criteria. Increasing travel time in HRMD because of the suburban geography (OEC p. 45) is not in the best interest of the citizens. The Steering Committee recommends that LFR create a Back Country Open Space (BCOS) response area that is rural because no houses exist in this area, it is a dedicated open space. Once this area is removed from HRMD, the population density (2700/sq mi) places it in the urban category. Trailmark has a population density (2884/sq mi) that is considered urban by the Commission on Fire Accreditation International, or suburban according to National Fire Protection Association (NFPA) (ref p.35). The Steering Committee believes it is reasonable to utilize the NFPA classification of suburban. Therefore, the Steering Committee travel time recommendations for first due units are: Urban (COL, LFPD, HRMD): 5 minutes 90% of time. Suburban (Trailmark): 6 Minutes 90% of time. And rural areas (BCOS): 11 Minutes 90% of time.

For OEC recommendation 21 (response time summary) the LFR Steering Committee recommends:

- Urban for COL, LFPD, & HRMD (1st Due)
 - ✓ Dispatch Time – 1 minute
 - ✓ Turnout Time – 1:45 minutes
 - ✓ Travel Time – 5 minutes
- Total Response Time – 7:45 Minutes

- Suburban for Trailmark (1st Due)
 - ✓ Dispatch Time – 1 minute
 - ✓ Turnout Time – 1:45 minutes
 - ✓ Travel Time – 6 minutes
- Total Response Time – 8:45 Minutes

- Rural for Back Country in HR (1st Due)
 - ✓ Dispatch Time – 1 minute
 - ✓ Turnout Time – 1:45 minutes
 - ✓ Travel Time – 11 minutes
- Total Response Time – 13:45 Minutes

Additionally, LFR should audit turnout and run times following six months of implementation of these recommendations. If LFR cannot meet the recommendations put forth, a Standard of Coverage study should be completed immediately following the audit.

South Metro Fire Rescue Authority is moving towards accreditation and has adopted the response times of Urban, Suburban and Rural similar to these recommendations. West Metro Fire Rescue conceptually adopted NFPA 1710. 5.2.4.1.1 Provides for the arrival of an engine company within a four minute response time. This was adopted district wide, including Roxborough Park, but was followed with

a Standard of Coverage Study to determine what changes would be necessary to accomplish these goals. They anticipate a change in this standard to adopt something similar to those of the accreditation standard.

Finances: Minimal at first. If goals are not met a Standard of Coverage study can be \$30,000 - \$50,000.

#4 – Recommendation 39: As funds become available or at such time as LFR adds an additional fire station, a Battalion Chief needs to be added to each Platoon and LFR organized into two Battalions

The Steering Committee desires to modify the recommendation to read, "As funds become available or at such time as LFR adds an additional fire station *or resources*, a Battalion Chief needs to be added to each Platoon and LFR organized into two Battalions." The Steering Committee recommends implementing recommendation 39 as modified.

Finances: \$412,000 annual salary

#5 – Recommendation 9: Establish department-wide goals and objectives and communicate them to the organization.

The LFR Steering Committee supports adoption of recommendation 9. Establishing department wide goals would be done in conjunction with the development of the strategic plan, recommendation 16.

Finances: None

#6 – Recommendation 88: In concert with City Fleet Maintenance, develop standard protocols for apparatus and equipment maintenance.

The LFR Steering Committee believes the current system is minimally getting the job done and needs improvement from all involved. To assist the understaffed fire mechanics the Committee suggests hiring an additional fire mechanic to help with work load.

LFR SOPs 402A (Apparatus Maintenance) and 402B (Apparatus Maintenance – Repair Requests) have been revised in effort to streamline vehicle maintenance. The Committee would like to have all vehicle records and information available via the intra-department Littleton Information Network. The Committee also believes having the ability to contact the Fleet Service Director directly in the morning of scheduled work would help in clearing up any special issues or concerns with apparatus.

The Steering Committee suggests that apparatus scheduled for maintenance be delivered to station 12 for shops personnel to pickup and deliver. This procedure would reduce units out of service times due to vehicle delivery.

The Steering Committee recommends LFR personnel and fleet service personnel conduct annual training together to enhance each others understanding of each others level of training and expectations. This includes general maintenance and apparatus operations training for all vehicle operators and the LFR Engineer Development classes for the primary fire mechanic.

To reduce repetitive apparatus work-orders the Committee recommends LFR personnel directly contacting the Fleet Service Center if the work order is not clear or the problem is intermittent. The Committee requests that Fleet Service Center inspection of the repair be conducted by a second mechanic prior to vehicle return, and if the issue is not resolved the first time the LFR engineer will meet with the mechanic to review the work order.

Finances: Fire Mechanic - \$45,213 annual salary

#7 – Recommendation 43 - The three governing boards of LFR should consider supporting the IAFC/IAFF developed Wellness-Fitness Initiative.

The LFR Steering Committee supports the implementation of recommendation 43 to maximize cost savings for the City and the partners. In a study by the National Institute of Standards and Technology and the U.S. Department of Commerce and published in The Economic Consequences of Firefighter Injuries and Their Prevention (NIST GCR 05-874 March 2005), the information presented suggests an interval reduction of occupational injury/illness claims and costs among fire departments that implemented the IAFF/IAFC Wellness Fitness Initiative (WFI) as compared to fire departments that had only partially implemented the WFI. The results also demonstrates that the WFI fire departments have a lower rate of

increasing claims and costs, while simultaneously decreasing lost hours and average cost per claim. The fact that lost hours and average cost per claim is reduced suggests that injury/illness severity is reduced, especially in the face of rising healthcare costs greater than the rate of inflation. Therefore, adoption of the WFI confers a savings in the short term. We conclude that the long-term economic benefit could be much greater by preventing and reducing premature fire fighter musculoskeletal injuries and cardiovascular disease through a comprehensive health risk screening and health promotion program avoiding passive impacts to reducing off-duty injury/illness costs as well.

A TRI Data report on the first four departments utilizing WFI (averaging 1665 fire fighters per department) demonstrated a return on investments saving the overall budgets of all governing boards. This appears to be a positive return on investment with receiving most of the initial costs back the first year and then receiving a positive return on investment of at least 1:2 for year two. Every one dollar spent on fire fighter wellness via implementation of the WFI results in an almost immediate return of over two dollars in occupational injury/illness costs. Another positive consideration is that these numbers underestimate the true cost savings since this does not take into account non-occupational injuries and the long-term medical costs of premature morbidity and mortality. Substantial long-term cost savings are expected from preventing cardiovascular disease, certain cancers, and reducing early disability from musculoskeletal and back injury.

To implement this recommendation the following is required: Annual fitness evaluations that include METS test, results recorded to track and trend to validate the program as it relates to LFR, RFP development to attain a fire department physician, and require the physician to continually employ a certified or be certified as a fire department physician. The physician must be local and able to rotate through on-duty crews. We would utilize the department physician for return-to-duty evaluations and we must have the rehabilitation plan in place prior to any testing for the "what if" scenario. We will need to maintain consistency of the same physical fitness equipment of all eight stations. We'll need to add Peer Fitness Trainers (PFT) and utilize those PFTs on-duty to rotate between stations. We would conduct annual cardiac assessments according to the following schedule: First year – all personnel of the department. After year one it is rotational based on age. Once every three years for members in their 20's, once every two years for members in their 30's, and every year for members in their 40's and above.

The OEC study recognized lack of "a structured physical fitness program specifically designed for the rigors that firefighters face during emergency scene operations". OEC reviewed the comprehensive wellness program the city has in place and found it to be deficient for what firefighters need.

See attachments at www.littleton.gov/fire/WFI_chapter_6.pdf and [Decreases experienced with WFI implementation.xls](#)

Finances:

FIRST YEAR WFI IMPLEMENTATION OVER 40			
Equipment / Item	Quantity	Cost per Unit	Total Cost
Laptop with software	1	\$1,500.00	\$1,500.00
Physicals	135	\$465.00	\$62,775.00
Cardiac Scans first year	135	\$300.00	\$40,500.00
Education / Continuing Ed for Trainers	1	\$23,500.00	\$23,500.00
Standardization of eight station's equipment	1	\$13,480.00	\$13,480.00
Health education and promotions	1	\$4,500.00	\$4,500.00
Total Initial Investment			\$146,255.00
SECOND YEAR ROTATION			
Physicals	135	\$465.00	\$62,775.00
Cardiac Scans	15	\$300.00	\$4,500.00
Education / Continuing Ed for Trainers	1	\$23,500.00	\$23,500.00
Health education and promotions	1	\$4,500.00	\$4,500.00
			\$95,275.00
THIRD YEAR ROTATION			
Physicals	135	\$465.00	\$62,775.00
Cardiac Scans	45	\$300.00	\$13,500.00
Education / Continuing Ed for Trainers	1	\$23,500.00	\$23,500.00
Health education and promotions	1	\$4,500.00	\$4,500.00
			\$104,275.00

#8 – Recommendation 45 - Add at least one full time employee position to the Operations Division for clerical support.

Recommendation #77 states, "Hire a staff assistant for the training division." The Operations Sub-Committee recommended combining recommendations #45 and #77 as one full time employee. That position would be a uniformed "Operations Captain" position to fulfill the duties set forth by the OEC study. This individual will function under the operations division. He or she will fulfill all described job responsibilities from the OEC study as well as numerous other operational administrative functions. Those job duties include but are not limited to: LFR representative to City accident review board, department safety officer, accident review committee coordinator, special events coordinator/incident action plan author i.e. Western Welcome Week events, Wild on Littleton, special teams coordinator, Littleton Report author or provides articles, on-call command staff member, and community liaison at various stakeholder community events and meetings. This person will coordinate projects and schedules of all training and operational events, and the vacation selection process. This person will be qualified to act as the acting chief of Operations in his/her absence and requires an expert knowledge level of the National Incident Management System.

Finances: \$131,300 annual salary

#9 – Recommendation 74 - Convert the Training Captain to full time training responsibilities.

The Steering Committee supports recommendation 74 and recognizes it closely aligned with recommendation 62 which states: "The existing Fire Captain assigned to the Training Division as 30% Public Educator and 70% Fire Training should remain in the Training Division, assigned to full time Fire Training." This has been implemented and it is the current practice of LFR. The 30% of time dedicated to Life Safety education that has been vacated due to the reassignment of the training captain still needs to be addressed. This will be addressed in Phase III when recommendation 61 is analyzed, "Consider hiring an additional Life Safety Educator to assist with the

delivery of programs and also function as the LFR Public Information Officer."

Finances: TBD in Phase III

#10 – Recommendation 40 - Fire Administration must clearly delineate the expectation that all three platoons shall be managed under the same policies and that interpretation and application of these policies and procedures shall be uniform across shift lines

The Steering Committee supports recommendation 40. The Operations Sub-Committee concluded that the operations meeting format will now be limited to the Operations Chief, the Fire Chief, and the three Battalion Chiefs. Invitations to the meeting will be extended only to other applicable personnel. This will create an environment for close discussion of current LFR issues between the five officers.

Finances: None

#11 – Recommendation 58 - As a priority for Fire Administration, the Fire Prevention Inspectors need to be moved from their current office within Station 11.

The current office space for Fire Prevention is 12'x24' and allows five computer work stations for four full-time Inspectors and Investigators, one part-time Hazardous Materials Inspector and five part-time Inspectors. The space does not include the Fire Marshal, Permit Coordinator or the Life Safety Educator(s). Part-time inspectors share computers and work stations to complete daily reports which take away from productivity of other employees. Storage is not available for the large amount of plans, reports and reviews that are completed daily. Plans and documents are stored on the work space and floors. Work stations are not large enough to adequately lay out plans for review as most plans are larger than the work space. Work stations are narrow, made up from counter tops, and the ergonomics need vast improvements.

The Fire Prevention Bureau has been re-organized to include the Life Safety Educator(s) and is now the "Fire Prevention and Life Safety Division" (per recommendation 30). The Fire Marshal and Life Safety Educator are located in the main building and Fire Prevention is located in Station 11. All members of the Fire Prevention and Life Safety Division should be located in the same building to allow for better team work and productivity. The Steering Committee supports recommendation 58 and notes that Fire Prevention has recently been given the approval and is currently reviewing locations for available office space.

Finances: TBD