Loveland Fire Rescue Authority Board Meeting

Station 2
3070 W. 29th Street
Community Room
Loveland, Colorado 80537
Wednesday, September 27, 2017

1:30 PM

Loveland Fire Rescue Authority (LFRA) Board Meeting Agenda
Station 2, 3070 W 29th Street
Community Room
Loveland, Colorado 80537
Wednesday, September 27, 2017
1:30 PM

On The Loveland Fire Rescue Authority (LFRA) is committed to providing an equal opportunity for services, programs and activities and does not discriminate on the basis of disability, race, age, color, national origin, religion, sexual orientation or gender. LFRA contracts with the City of Loveland for assistance with translation, discrimination concerns, and Americans with Disabilities Act accommodations. Please contact the City of Loveland Title VI Coordinator at TitleSix@cityofloveland.org or 970-962-2372 for translation services and discrimination concerns. LFRA will make reasonable accommodations for citizens in accordance with the Americans with Disabilities Act (ADA). For more information on ADA or accommodations, please contact the City of Loveland ADA Coordinator at Jason.smitherman@cityofloveland.org or 970-962-3319.

La Autoridad de Rescate de Incendios de Loveland (LFRA, por sus iniciales en inglés) se compromete a proveer oportunidades equitativas para servicios, programas, y actividades, y no discrimina basándose en discapacidades, raza, edad, color, origen nacional, religión, orientación sexual, o género. La LFRA tiene contratos con la Ciudad de Loveland para recibir asistencia para traducciones, en caso de preocupaciones de discriminación, y de acomodaciones de la Ley de Americanos con Discapacidades. Por favor comuníquese con el Coordinador del Título VI de la Ciudad de Loveland en TitleSix@cityofloveland.org o al 970-962-2372 si necesita servicios de traducción o tiene preocupaciones de discriminación. La LFRA organizará acomodaciones razonables para ciudadanos de acuerdo con la Ley de Americanos con Discapacidades (ADA, por sus iniciales en inglés). Si desea más información acerca de la ADA o acerca de las acomodaciones, por favor comuníquese con la Coordinadora de la Ciudad de Loveland en Jason.smitherman@cityofloveland.org o al 970-962-3319.

Wireless access: COLGuest, accesswifi

CALL TO ORDER
PLEDGE OF ALLEGIANCE
ROLL CALL
AWARDS AND PRESENTATIONS – PINNING CEREMONY – KLAAS, HESSLER, BUKOWSKI, SCHIFFELBEIN, STEPHENSON AND GILLEN
PUBLIC COMMENT

CONSENT AGENDA

Anyone in the audience will be given time to speak to any item on the Consent Agenda. Please ask for that item to be removed from the Consent Agenda. Items pulled will be heard at the beginning of the Regular Agenda. You will be given an opportunity to speak to the item before the Board acts upon it.

Public hearings remaining on the Consent Agenda are considered to have been opened and closed, with the information furnished in connection with these items considered as the only evidence presented. Adoption of the items remaining on the Consent Agenda is considered as adoption of the staff recommendation for those items.

Anyone making a comment during any portion of today's meeting should come forward state your name and address for the record before being recognized by the Chair. Please do not interrupt other speakers. Side conversations should be moved outside the meeting room. Please limit your comments to no more than five minutes.

Loveland Fire Rescue Authority (LFRA) Board Meeting Agenda
Station 2, 3070 W 29th Street
Community Room
Loveland, Colorado 80537
Wednesday, September 27, 2017
1:30 PM

1. Consider a Motion to Approve the Minutes from the Loveland Fire Rescue Authority Board for the August 30, 2017 Regular Board Meeting.

End of Consent Agenda

REGULAR AGENDA

Anyone who wishes to address the Board on any item on this part of the agenda may do so when the Chair calls for public comment. All public hearings are conducted in accordance with Board By-Laws. When Board is considering approval, the Authority's By-laws only requires that a majority of the Board quorum be present to vote in favor of the item.

2. Discussion about the Fire Chief Evaluation Process for 2017-2018

3. Distribution of the Final Draft of the 2018 Strategic Plan

4. Consider a Motion to Approve and Adopt the Revised Impact Fee Study from BBC Research & Consulting

5. Review Briefing Papers and Correspondence.
   a. Chief's Report
   b. Letters
   c. August Operations Statistics
   d. August Community Safety Division Statistics

6. Other Business for Board Consideration

ADJOURN

Agenda Item Cover

Item No.: 1

Meeting Date: September 27, 2017

Prepared By: Kristen Cummings, Business Services Coordinator

TITLE

Consider a Motion to Approve the Minutes from the August 30, 2017 Loveland Fire Rescue Authority (LFRA) Regular Board Meeting

EXECUTIVE SUMMARY

The attached document, prepared by Kristen Cummings and edited by outside attorneys, is a record of the August 30, 2017 regular meeting of the LFRA Board. The document details the discussions at the meeting including: the approval of the consent agenda (Minutes, Donation of Rescue 8, Reappointment of a Volunteer Pension Board Member), a presentation regarding Red Bandanna Day, a guideline regarding recommendations for increasing the benefits of the Volunteer Firefighter Pension Fund, establishing a separate fund for employee contributions to the sworn retirement plan, a public hearing to adopt the LFRA 2018 budget, an update on the 2018 Strategic Plan, and the Chief's Report.

BACKGROUND

Standard meeting protocol

STAFF RECOMMENDATION

Approve as written

FINANCIAL/ECONOMIC IMPACTS

N/A

ASSOCIATED STRATEGIC GOALS

N/A

ATTACHMENTS

August 30, 2017 Minutes

Loveland Fire Rescue Authority Board Meeting Minutes
Wednesday, August 30, 2017
3070 W. 29th Street, Loveland
1:30 p.m.

Members Present:

Vice Chairman Cecil Gutierrez, City of Loveland Mayor
Director Steve Adams, Loveland City Manager
Director John Fogle, City of Loveland Council Member
Director Dave Legits, President of the Loveland Rural Fire Protection District ("Rural District")

Members Absent:

Board Chairman Jeff Swanty, Rural District Director

Staff Present:

Mark Miller, Fire Chief
Ned Sparks, Division Chief
Greg Ward, Division Chief
Kristen Cummings, Business Services Coordinator
Emily Powell, Legal Counsel to the Authority
Andrea Wright, Human Resources Manager
Greg White, Secretary of Rural District
Randy Mirowski, Special Projects Manager
Michael Cerovski, Battalion Chief
Cheryl Cabaruvias, Administrative Analyst
Theresa Wilson, Budget Manager, City of Loveland (arrived at 2:26 pm)

Visitors:

Paul Pfeiffer, Loveland Fire Rescue Advisory Committee
Mike McKenna, Consolidated Volunteer Firefighters Pension Fund Board of Trustees
Lisa Melby, Executive Director, Good Samaritan Loveland Village
Doug Overall, Chaplain, Good Samaritan Loveland Village

Call to Order:

Vice Chairman Gutierrez called the Loveland Fire Rescue Authority ("LFRA") Board meeting to order on the above date at 1:34 p.m.

Swearing In:

None

Awards and Presentations:

None

Public Comment:

None

Consent Agenda:

1. **Consider a Motion to Approve the Minutes from the LFRA July 26, 2017 Regular Board Meeting.**

2. **Consider Donation of Rescue 8 to the Rist Canyon Volunteer Fire Department.**

3. **Consider a Motion to Approve a Volunteer Firefighter Pension Fund Board of Trustees Guideline for Recommending an Increase in Volunteer Pension Retirements Benefits.**

4. **Consider Reappointment of One Volunteer Pension Board Member to the Volunteer Firefighter Pension Fund Board of Trustees.**

Greg White requested that agenda item 3 be removed from the consent agenda and added to the regular agenda.

Director Legits moved to approve items 1, 2 and 4 of the consent agenda. Director Fogle seconded; motion carried unanimously.

Regular Agenda:

5. Presentation from Good Samaritan's Village for First Responders Red Bandanna Day

Lisa Melby, Executive Director of Good Samaritan Loveland Village, gave a presentation introducing the Board to First Responders Red Bandanna Day. Red Bandanna Day is a national

movement started in honor of a 9/11 victim, Welles Crowther, who always wore a red bandanna and is credited with saving 18 lives during the attack on the World Trade Center. The residents of Good Samaritan wanted to honor local emergency services providers through a Proclamation declaring September 11 as First Responders Day at Good Samaritan, and will be distributing breakfast to first responders on the morning of September 11, 2017. Lisa read the Proclamation and presented it to Vice Chairman Gutierrez and Chief Miller.

6. Consider a Motion to Approve a Volunteer Firefighter Pension Fund Board of Trustees Guideline for Recommending an Increase in Volunteer Pension Retirements Benefits.

Greg White made a recommendation to the Board that Authority contributions to the Volunteer Firefighter Pension Fund be reexamined. Since it is a closed pension fund, the amount of contributions being made may be more than what is required to maintain the fund in an actuarially sound condition. He advised that the pension fund used to serve as a recruitment and retention tool for volunteer firefighters; however, since the Authority became a fully career department, the beneficiary pool is fixed and will become smaller over time. Currently LFRA contributes approximately $100,000 per year, and the State matches with approximately $80,000 per year. The beneficiaries are paid a monthly benefit of $750 for 20 years of creditable service.

Director Adams asked to see the 2016 actuarial study of the pension fund as a future agenda item, and to table this agenda item until the LFRA Board learns more about the operation and condition of the Volunteer Firefighter Pension Fund.

Director Adams moved to table this agenda item until more information is provided. Director Legits seconded; motion passed.

7. Consider a Motion to Adopt a Resolution Establishing a Separate Fund for Employer Contributions to the Loveland Fire Rescue Authority Sworn Retirement Plan

Emily Powell presented a proposed Resolution establishing a separate fund for employer contributions to the sworn retirement plan, to separate the employer contributions from other Authority funds and provide that any excess employer contributions are re-budgeted and appropriated in each succeeding year as employer contributions to the sworn retirement plan, and not used for other Authority purposes.

8. Conduct a Public Hearing and Consider a Resolution Adopting the LFRA 2018 Budget

Vice Chairman Gutierrez opened the Public Hearing for the 2018 Proposed Budget at 2:13 pm. Emily Powell noted for the record that this public hearing was duly published as required by

law, and that neither the Authority nor legal counsel had received any public comments regarding today's hearing.

Chief Miller recognized Cheryl Cabaruvias for her efforts on the 2018 Proposed Budget. He stated that the calendar year is 64% complete, and the Authority is at 64% of budgeted expenses. No fund balance is expected at the end of the year.

Health insurance premiums for employees will be going up 5.5% in 2018, and Chief Miller recommended that LFRA absorb the entire increase, since this program is new and the employees were told they would have not initially have a premium on High Deductible Health Plans. He recommends a 50/50 split on any increase starting in 2019. Director Fogle stated that the City does an 80/20 split with the employees on their premiums and that LFRA should consider doing the same. Director Adams pointed out that the two health insurance plans are very different because the City does not have High Deductible Health Plans, so comparing contributions between the plans would be misleading. It was the consensus of the Board to absorb the 5.5% increase in health insurance premiums in 2018.

Three budget decision packages were presented: 1.) Radio maintenance for 225 800-mHz radios, 2.) Sworn pension plan contribution change and 3.) Community Safety – New Public Education/Inspector position. The first two decision packages were recommended in the City-wide Funding Determination for Decision Packages process. Division Chief Sparks talked about the importance of the new Community Safety Division position, because the accreditation process identified a lack of public education as a concern. However, Chief Miller stated that there is not enough surplus in the budget for LFRA to cover the cost of the new position. Director Adams stated that he would like to see inclusion of the new position in the strategic plan before considering adding the position. He recognized the need for an additional inspector, and suggested that could be achieved at a later date through a supplemental budget process.

Greg White stated that the Rural District will be able to absorb the increase in LFRA's budget as proposed.

Chief Miller stated that due to the City's recent discovery of an error in its accounting of excess TABOR funds, as discussed with the Board at its July meeting, only half of the cost of the Training Center's new Burn Building is covered.

Vice Chairman Gutierrez called for public comment on the proposed budget. Hearing none, Vice Chairman Gutierrez closed the public hearing.

Director Fogle moved to approve the 2018 budget, including the first two decision packages, for a total of budgeted expenditures of $14,988,776. Director Adams seconded; motion passed unanimously.

Greg White thanked LFRA staff for including the Rural District early in budget discussions this year. Vice Chairman Gutierrez requested that going forward, decision packages be brought before the LFRA Board before going to the Budget Subcommittee Meeting.

8. Update on the 2018 Strategic Plan

Special Projects Manager Randy Mirowski gave an update on the progress of the Strategic Plan. Sections 9 and 10 have just completed. The plan is approximately 142 pages, and is expected to be completed one month ahead of schedule. Section 10 has eight carryover initiatives from the 2012 Strategic Plan.

Vice Chairman Gutierrez asked about fire personnel carrying Narcan on apparatus in case there is accidental exposure to opiates. Chief Miller advised that Chief Randy Lesher of Thompson Valley EMS and Captain Eric Klaas are working on developing training for the firefighters so that this would be an option in the future.

9. Chief's Report

Chief Miller will be presenting on impact fees at a Johnstown Town Council Study Session on September 6, 2017.

Two weeks ago, Chief Miller made an offer of $325,000 to the property owners of the Station 7 land. The offer was accepted. The Authority is working with realtor Nathan Klein to develop a Contract for Purchase and Sale. Emily Powell and Greg White will begin working on a loan agreement for the portion of the purchase price being loaned to the Authority by the Rural District.

Vice Chairman Gutierrez adjourned the regular meeting at 3:52 p.m.

The foregoing minutes, having been approved by the LFRA Board of Directors, constitute the official minutes of the meeting held on the date stated above.

_____ _____

Cecil Gutierrez, Vice Chairman Kristen Cummings, Secretary

Agenda Item Cover

Item No.: 2

Meeting Date: September 27, 2017

Prepared By: Andrea Wright, Human Resources Manager

TITLE

Consider a Motion to Select a Fire Chief Evaluation Process for 2017-2018

EXECUTIVE SUMMARY

Review the current evaluation process for the Fire Chief, discuss options and decide on a process for 2017-2018.

BACKGROUND

The current process has been in place for the past two (2) years. The Board has expressed an interest in evaluating the current process along with other options in an effort to provide the Chief with regular and meaningful feedback and follow-up on goals. Options to consider include:

1. Current process
2. Current process with a few changes
3. Quarterly meetings (same or similar process used with the City Manager, City Attorney and Municipal Judge)

STAFF RECOMMENDATION

The quarterly meetings option is recommended along with an evaluation of the process after 12 months to identify if the Board and Chief's expectations of the process have been met.

FINANCIAL/ECONOMIC IMPACTS

The evaluation process is the basis for merit raises.

ASSOCIATED STRATEGIC GOALS

All three (3) strategic goals (effective response, minimize and mitigate risks, and deliver cost effective services).

ATTACHMENTS

PowerPoint slides

FIRE CHIEF EVALUATION PROCESS

2017 - 2018

POTENTIAL OPTIONS

CURRENT	CURRENT – REVISED	QUARTERLY MEETINGS
360 survey *(results provided to Board)*	Remove 360 survey as part of evaluation	Quarterly meetings with the Board & Chief – feedback from both Board & Chief related to goals (open session) & personnel matters (executive session)
Chief self-evaluation *(provided to Board)*	Remove self-evaluation	One quarter may include information from a 360 survey
Individual Board Member feedback via evaluation survey *(provided to HR)*	Individual Board Member feedback via evaluation survey *(provided to HR)*	
HR consolidates feedback	HR averages scores & summarizes comments	
Special Meeting to discuss & consolidate feedback	Special Meeting - review compiled evaluation; Come out of Executive session to formally approve evaluation	
Draft final sent to Board for review then to Chief	Final approved evaluation is sent to Chief	
Executive session to conduct evaluation with Chief; Come out of Executive session to formally approve evaluation	Executive session to discuss evaluation with Chief	

Agenda Item Cover

Item No.: 3

Meeting Date: September 27, 2017

Prepared By: Mark Miller, Fire Chief

TITLE

Distribution of the Final DRAFT of the 2018 Strategic

Plan EXECUTIVE SUMMARY

Special projects Manager – Chief Randy Mirowski will give a brief presentation on the Final DRAFT of the 2018 LFRA Strategic Plan. Some important revisions were made in the Essential Services Expansion Plan (ESEP) section that will require explanation and discussion for Board consideration. The revisions will be in RED, so the Board can easily identify what is different compared to the previous version handed out at the last Board meeting.

BACKGROUND

As previously mentioned, staff indicated that we would provide the Final DRAFT of the plan to the Board in September for them to review over the next 30 days. At the October LFRA Board meeting, we will discuss the plan in depth and/or answer questions, concerns, provide clarification, gather feedback, etc.

STAFF RECOMMENDATION

Listen to the presentation on the proposed revisions in the ESEP section, and review the plan in its entirety over the next 30 days. Provide feedback and direction at the October LFRA Board meeting, in regards to approval and/or recommendations/revisions relative to acceptance of the plan.

FINANCIAL/ECONOMIC IMPACTS

N/A

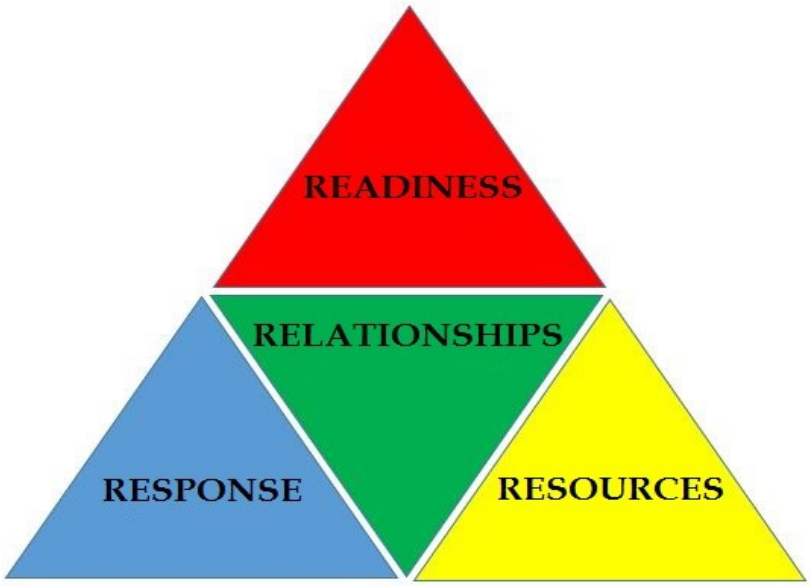
ASSOCIATED STRATEGIC GOALS

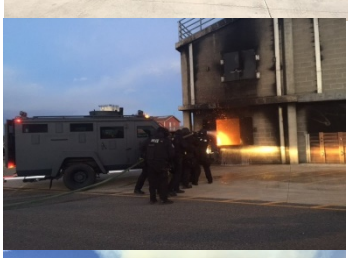
- Deploy an effective emergency response to minimize damage and loss
- Minimize and mitigate the risks of an emergency occurrence in the community
- Deliver cost effective services

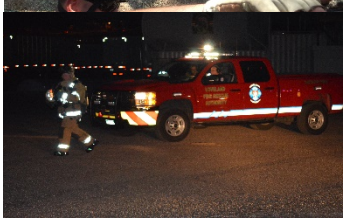
ATTACHMENTS

2018 Strategic Plan – Final DRAFT

LOVELAND FIRE RESCUE AUTHORITY
2018 STRATEGIC PLAN







PROUDLY SERVING THE CITY OF LOVELAND, CO

AND

THE LOVELAND RURAL FIRE PROTECTION DISTRICT

Taking our Organization from Good to Great, and Building it to Last with Enduring Greatness

Loveland Fire Rescue Authority

Fire Protection/ Emergency Services

Strategic Plan

2018 Edition

Table of Contents

I. EXECUTIVE SUMMARY

If a community desires to provide a fire-safe environment for its citizens and visitors, the fire protection and emergency service needs must be identified, planned for, and properly addressed in the most cost effective manner. In 2012, the City of Loveland and the Loveland Rural Fire Protection District formed a true partnership with the creation of the Loveland Fire Rescue Authority (LFRA). Both agencies (City and Rural) have recognized the importance of planning for the future around a shared vision that provides the best protection for the community. LFRA has developed the 2018 Strategic Plan to provide the department a roadmap for the future. The strategic plan for LFRA will be based on an eight-year timeframe: 2018-2026. Annual evaluations and progress reports will be completed and reported to the various governing bodies to ensure the stated goals and objectives within this plan are being met.

It is anticipated that the 2018 Strategic Plan will:

- Provide an accurate description of the Loveland area's past, present, and future fire protection and emergency services situation.
- Provide an accurate description of the current fire protection and emergency services systems, their capabilities, and their limitations.
- Establish an agreed upon model of operation that can address the future fire and rescue needs of the Loveland community.
- Establish a set of goals and objectives that will determine the desired performance level (often referred to as service levels) and establish service level indicators that provide a standardized way of measuring the effectiveness of the fire protection and emergency services system of the future.
- Establish a plan for the initiatives that will help prevent harm from emergencies or limit the potential destruction.
- Provide a safe, proactive, and cost effective fire protection and emergency services system strategy for the years outlined within this strategic plan and beyond.

The *2018 LFRA Strategic Plan* will be a dynamic document that will continue to evolve, adapting to the changes that unfold over the next eight to ten years. Periodic evaluations and progress reports to the fire authority board of directors will be an essential part of this planning process. Updates and progress reports will also be included in an annual report made by the fire chief and the organization to communicate to the fire authority board members, and the public, the progress made on the stated organizational goals and objectives contained within this plan.

The recommendations in this plan include two segments: (1) strategic plan priorities for LFRA and (2) other organizational needs. The plan's strategic priorities are reflected in a document that outlines the most important initiatives for capital expansion and larger operation and maintenance initiatives. This document is known as the “Essential Services Expansion Plan” (ESEP) - see Section VI for more information. The ESEP is organized into three phases of implementation and two categories defining levels of priority for implementation: high priority and intermediate priority. The “other organizational needs” category focuses on future priorities and can be found in Section X Recommendations/Implementation. The ESEP offers a minimum staffing of each fire company with three firefighters and utilizes a model of staffing of full-time paid firefighters in Urban Response Area stations and volunteer firefighters in the Big Thompson Canyon stations. The ESEP is expressed on the following page with implementation phases in years, costs, and the source of funding for each initiative.

Essential Services Expansion Plan-*Revised*

Plan on a Page

PHASE 1: 2018 – 2020 (High Priority)	YEAR	COST	SOURCE
Training Center- Burn Building	2018	2,641,228	City TABOR/Fire Capital Exp. Fees
Build New Station 7 & Apparatus	2018	4,649,914	LFRA Financing
Replace Fire Engine E-3/ #0156	2020	598,005	LFRA Fleet Replace Fund
Total Capital $ Increase Phase 1		**$7,889,147**	(moved QRV capital)
Inspector for Community Safety Division (CSD)	2018	74,500	City/Rural Annual Contributions
Station 7 (staffing, facilities, and vehicle maintenance and annual replacement savings)	2019	1,418,520	City/Rural Annual Contributions
Total Operational $ for Phase 1		**$1,493,020**	(moved QRV O&M)

PHASE 2: 2021 – 2023 *(High Priority)*	YEAR	COST	SOURCE
Station 10 Design	2021	409,236	LFRA Financing
Replace Fire Engine E-7/#0109	2021	599,881	LFRA Fleet Replace Fund
Station 10 Construction	2022	4,895,830	LFRA Financing
Replace Fire Engine E-2/#0110	2023	603,567	LFRA Fleet Replace Fund
Replace Rescue 6/#0352	2023	723,071	LFRA Fleet Replace Fund
Total Capital $ Increase Phase 2		**$7,231,585**	
Add 3 FF positions for Heavy Rescue 2	2021	230,000	City/Rural Annual Contribution
Station 10 (staffing, facilities, and vehicle maintenance and annual replacement savings)	2023	1,398,725	City/Rural Annual Contributions
Total Operational $ for Phase 2		**$1,628,725**	(Sub BC's Add FF's)

PHASE 3: 2024-2026 *(Intermediate Priority)*	YEAR	COST	SOURCE
Remodel Station 5	2024	1,976,850	City Bond-Sales Tax
Replace Ladder 6/#0202	2024	1,406,282	LFRA Fleet Replace Fund
Add Quick Response Vehicle (QRV) Company	**2025**	**381,598**	LFRA Fleet Fund
Remodel/Replace Station 3	2025	3,612,413	City Bond-Sales Tax
Replace Fire Engine 5/#0111	2025	736,854	LFRA Fleet Replace Fund
Total Capital $ Increase Phase 3		**$8,113,997**	(add QRV Capital)
Add 3 Shift Battalion Positions (East Battalion)	**2024**	**518,400**	City/Rural Annual Contributions
QRV Company Staffing	**2025**	**828,423**	City/Rural Annual Contributions
Total Operational $ for Phase 3		**$1,346,823**	(add BC & QRV staff)

II. INTRODUCTION

BACKGROUND/ HISTORY

History of the Loveland Fire Rescue Authority (LFRA)

The development of the fire authority for Loveland Fire Rescue (LFR) involved two organizations: the City of Loveland and Loveland Rural Fire Protection District. Historically, for more than 50 years, the City of Loveland had a contractual agreement to provide fire and emergency services to the Loveland Rural Fire Protection District. As time went on and both areas grew in population and in their demands for more services, a better governance model was needed. A discovery process was initiated to evaluate and find that model.

The discovery effort spanned nearly two and one half years (2010-2012) and involved three committees. The first committee set out to evaluate several different governance models, identifying which one would be the best for LFR. The conclusion of this group's research suggested that the fire authority would be the best model considering all of the characteristics and particulars involved within the organization. The second committee took the work of the first committee and focused on the viability of a fire authority for LFR. They determined that a fire authority would be feasible for LFR, but significant organizational improvements would have to be made in staffing, deployment, and planning for the fire authority concept to become successful. This group's efforts included an analysis of the community and fire-rescue needs and the gaps that existed for those services. The third committee, made up of policy and decision makers from both the city council and the rural district board of directors, set to work on identifying how a fire authority would work for LFR. The result of their work was the formation of an Intergovernmental Agreement (IGA) that would be the guiding document forming the fire authority; it would also help create the true partnership needed between the city and the rural district. The IGA was reviewed and approved by both governing bodies for the fire authority. It established the legal parameters for how LFRA would be operated and managed, the powers of the authority, its officers, and funding mechanisms. With the establishment of the fire authority, a true partnership exists between the city and the rural district. The fire authority has established and cultivated this partnership into what has now become a strong, effective organization that looks out for the best interest of citizens of the entire Loveland community - city and rural residents alike.

At the time of this writing (2017) LFRA has operated as an effective, quality fire authority for more than five years. The majority of the planning assumptions in the 2012 Strategic Plan have been validated as correct, most of the expansion plans have also been accomplished, and the organization has grown in size and in its ability to provide excellent citizen services to both the city and the rural district. Since 2014 LFRA has also focused its attention on the maturation process for the fire authority. Transitioning employees, equipment, and select real property to the fire authority was a lengthy legal process, but was accomplished within the expected timelines.

MOVING TO A NEW ERA AND A NEW STRATEGIC PLAN

The next steps for LFRA include the construct of a new strategic plan for the years 2018-2026. Adhering to the new plan will help the organization meet its expected goals as a world class organization and will carry the vision forward of going from *good to great and building it to last with enduring greatness.* In the *2012 LFRA Strategic Plan, the* "Model One Basic Services

Expansion Plan" was added. "Model 1" outlined the major expansion initiatives on one page. It made the plan easy to understand for lay people and yet provided the necessary details for planning purposes for elected officials and other leaders. This creation, by Director Renee Wheeler, gave the Authority and the readers of the plan the ability to see the plan's essential action items, the years these action items would occur, the costs of the action items, and the varying priority levels all on one page. This "plan on a page" concept has turned out to be one of the most useful, effective, and impressive aspects of the *2012 LFRA Strategic Plan*.

The *2018 LFRA Strategic Plan* will also include a new, improved version of the plan-on-a-page concept called the *Essential Services Expansion Plan (ESEP).* The ESEP will capture the same type of descriptive dimensions of "Model One*"* but with the next generation of initiatives and expansion action items added in. It will be updated to include three phases and extend from the years 2018-2026. The major highlights for expansion in the ESEP include:

- Enhancements to the Training Center - new burn building.
- Addition of Fire Station Seven -West in the rural district.
- Addition of Fire Station Ten - East in Centerra area.
- Hiring of firefighters - Staffing Stations Seven and Ten.
- Remodel of Fire Station Five.
- Remodel of Fire Station Three.
- Procurement of fire apparatus within the vehicle replacement schedule.
- Addition of Quick Response Vehicles (QRVs).

Other strategic expansion items are included in "Section X- Recommendations/ Implementation" under the headings of "*Other Organizational Needs."* The strategic plan priorities and the other organization needs make up the entirety of the expansion items for the fire authority. Funding the expansion is part of the fundamental planning effort that will go into the *2018 LFRA Strategic Plan.*

FINANCIAL PLANNING FOR LFRA

Most strategic plans have identified funding streams or sources that ensure that the targeted expansion is supported. However, in 2012, when LFRA was in the incipient phase of its development, certain financial ambiguities and uncertainties were unavoidable. With the establishment of the fire authority, the city and the rural district had expanded financial commitments for ensuring that the organization would be able to increase its services at the appropriate level to ensure a quality response to the Loveland community. The rural district board evaluated its financial responsibility and sought a mill levy increase in property taxes to meet its financial obligations for expansion; this effort was successful in late 2012. The city has also identified expansion of the fire department as a high priority and increased its financial commitment to help meet the needs of the growing community. Funding mechanisms were developed and put in place to meet the majority of the goals and objectives set forth in the 2012 Plan. The next steps for expansion for LFRA, as outlined in this strategic plan, will be necessary to keep pace with the growth of the Loveland community. These expansion initiatives will enable LFRA to continue to provide the highest quality emergency services possible for its citizens. Much like in the 2012 plan, funding streams for some of the capital and operational expansion needs for the 2018 plan will need to be identified. Adequate funding must be procured for these expansion initiatives in order for LFRA to accomplish the goals and objectives set forth in the *2018 LFRA Strategic Plan.*

THE NEED FOR FIRE PROTECTION AND EMERGENCY SERVICES PLANNING

The primary purpose of local government is to provide protection, public safety, and support through infrastructure and response for its citizens. Public fire protection and emergency services, as a function of local government, has the responsibility of saving lives and property from natural or human-caused situations and preventing harm through planning and pre-incident mitigation. Local governments, through the fire protection and emergency services delivery systems, must also ensure that those persons that own or operate businesses or manage property do so without endangering those who use their services or are affected by their operation.

Any fire protection and emergency services system should reflect the needs and desires of the community and be managed and operated within an affordable and efficient financial system. It has always been important for local governments to operate in a manner of good stewardship of the public funds. Local fire protection and emergency services operations should support the overall goals and objectives of the community in the most cost-effective manner. In the western part of the United States, the term "community" has been defined in a broader manner than simply meaning the defining lines of a city or borough. Often, community is more reflective of an area or region that may encompass a city and its surrounding district. Local governments and fire protection and emergency services delivery systems are challenged to be more effective and efficient in how they operate, while at the same time providing a high level of service. Agencies must look beyond the simplicity of single jurisdictional boundaries and adjust operations to have more of a community approach. Such is the case with the creation of fire districts and fire authorities. These governance models are built around concepts that encourage greater efficiency, effectiveness, and cost-savings through support and collaboration.

Historically, in both the emergency and non-emergency setting, the fire service has waited for a problem to develop and then reacted or responded to it. This operational method of being reactive rather than proactive has contributed to an unbalanced and oftentimes ineffective and inefficient service delivery model. The lack of adequate planning has also contributed to many fire service organizations being unprepared to protect their citizens adequately and unable to provide for appropriate levels of community safety from the hazards of fire and natural or human caused destruction.

If a community desires to provide a fire-safe environment for its citizens and visitors, the fire protection and emergency service needs must be identified, planned for, and properly addressed in the most cost effective manner. By acting in partnership with the creation of the Loveland Fire Rescue Authority, the City of Loveland and the Loveland Rural Fire Protection District have recognized these needs and the importance of planning for the future around a shared vision that provides the best protection for the community in the most cost-effective manner possible. Strategies that include solid planning assumptions, the development of community goals and objectives, and recommendations for implementation have been formulated within this strategic plan for the future of the Loveland community.

LFRA is now in its second iteration of an active and integral strategic planning process for organizational improvement. The results and success of the 2012 Strategic Plan have been remarkable, providing a working document that has contributed to the organization’s move from “good to great.” The planning process has proven itself for LFRA and has now become embedded within the organization’s overall strategy for building LFRA to last with “enduring greatness.”

ANTICIPATED BENEFITS

It is anticipated that this strategic plan for the Loveland Community will:

- Provide an accurate description of the Loveland area's past, present, and future fire protection and emergency services situation.
- Provide an accurate description of the current fire protection and emergency services system, its capabilities, and its limitations.
- Establish a set of goals and objectives that will determine the desired performance levels (often referred to as service levels) and provide a standardized way of measuring the effectiveness of the fire protection and emergency services system of the future.
- Establish an agreed upon model of operation that can address the future needs for fire and rescue operations.
- Establish a plan for initiatives that will help prevent harm from emergencies or limit the potential destruction.
- Provide a fire protection and emergency services system whereby:
    - Deaths, injuries, and loss will be minimized.
    - The funding for fire protection and emergency services is more properly distributed between city and rural citizens.
    - Planning and alleviating emergencies is done before they occur, and whereby firefighters are fully prepared and trained to respond to and mitigate emergencies.
    - Cost effectiveness and efficiency for the citizens is of paramount importance, and good stewardship of public funds is a strong organizational value.
- Provide clear recommendations for future expansion and growth.
- Provide additional documentation for comparison and analysis of comparable organizations to LFRA in emergency services.
- Provide data and information to enhance firefighter safety and survival and improve the safety and survival of the citizens within the community.
- Utilize updated information from the department’s accreditation process to ensure the most accurate data and statistics are a part of the planning assumptions.

ACCURACY OF DATA

Every attempt has been made in this strategic plan to provide the most accurate data and information possible. The data used as a basis for many of the planning assumptions, and stated goals and objectives, were derived from extensive studies of various local risk potential and local fire and rescue history. Comparison data was gleaned from other like departments in northern Colorado and southern Wyoming. Most of the data used from comparison departments was gleaned from those with like population and demographic models, similar services provided, and similar regional logistics. No attempt was made to be specifically selective or to "cherry pick" certain departments in order to make a stronger case for Loveland Fire Rescue Authority. Other data models, when used, were selected from the consortium of Colorado departments within the framework of the cohort group from the International City/County Managers Association (ICMA). Finally, any other data used within this plan, other than what has been specified, will be clearly cited for their use within the plan. The data that is listed in this plan can and does provide a good and reliable picture for fire service benchmarks and comparison data. However, it should not be viewed as all-inclusive or as absolute but should be considered as the best data and information that are available at the time.

PLANNING PROCESS OVERVIEW

The strategic planning project for Loveland Fire Rescue Authority has been conducted utilizing eight basic steps (Fig. 2-1). The first step was to confirm the need for strategic planning within the organization. The second step evaluated the current fire protection and emergency services systems; both the prevention and pre-emergency systems and the emergency response systems. The third step evaluated the community and its threat from both natural and human-caused calamity, in effect conducting a community risk analysis. This included the area known as the wildland urban interface. The fourth step involved the evaluation of the current fire-rescue and emergency services and capabilities, and the identification of gaps in service as compared to the overall community risk levels *(see Section VIII for more information on community risk assessment).* Step five created concise and accurate planning assumptions to meet service level needs of the community. Step six involved the creation of specific, measurable, and actionable goals and objectives for the plan. Step seven developed a comprehensive set of recommendations for the strategic plan to ensure that the most efficient and cost effective methods were targeted for improvements to the fire protection and community fire related emergency services. Finally, step eight established an ongoing evaluation process for the strategic plan, comparing and testing planning assumptions to forecasted needs and actions.

Eight Steps for Strategic Planning

Step 1 - Confirm the Need for Continuing Strategic Planning Processes.

↓

Step 2 - Evaluate the Current Fire Protection and Emergency Systems.

↓

Step 3 - Evaluate the Community through a Community Risk Analysis.

↓

Step 4 - Evaluate the Current Fire-Rescue Services and Capabilities.

↓

Step 5 - Create Accurate Planning Assumptions to Meet Service Needs.

↓

Step 6 - Create Specific, Measurable, and Actionable Goals and Objectives.

↓

Step 7 - Develop Comprehensive Recommendations for Improvement of Services.

↓

Step 8 - Develop an Ongoing Process to Evaluate Progress and Improvements.
(*A Plan, Do, Check, Act-based system- see "Edward Deming's Wheel"*)

Figure 2-1. *Steps for Strategic Planning*

PLANNING LEADERSHIP TEAM ORGANIZATIONAL STRUCTURE

The planning process/document creation has been completed by five groups/individuals (Fig. 2-2).

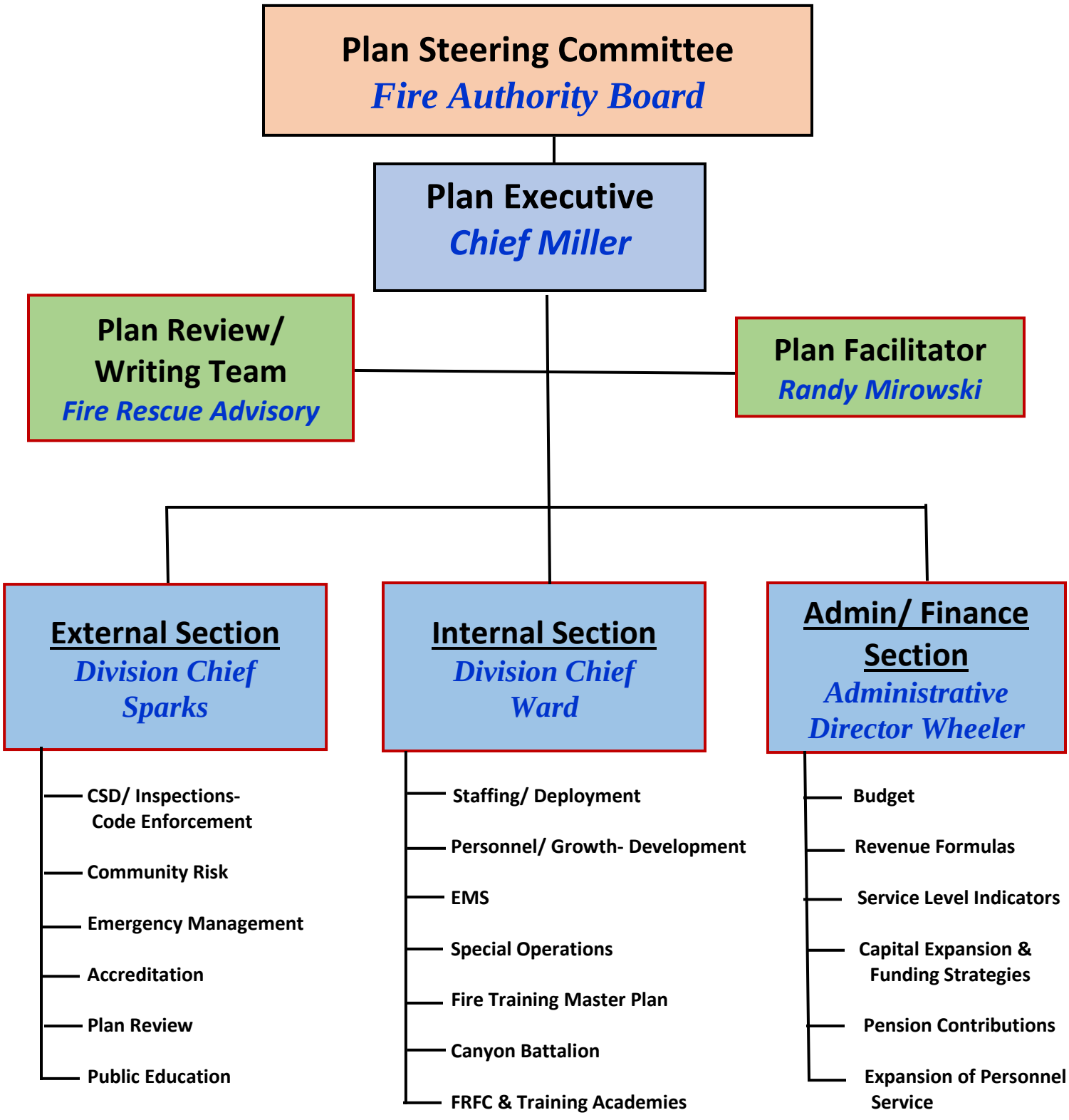


Figure 2-2 *Team Organizational Structure*

DEFINITION OF POSITION AND TEAM MEMBERS

STEERING COMMITTEE
Decides the scope, overall priorities, and general course direction for the strategic plan.

PLAN EXECUTIVE

Provides overall leadership for the construct of the strategic plan, directing and managing the creation of the plan by working closely with the Steering Committee, the Leadership Team, and Plan Facilitator.

PLAN REVIEW/ WRITING TEAM

Functions as the team to write and review sections of the strategic plan, editing the document for clarity and understandability at the citizen level.

PLAN FACILITATOR

Works closely with the overall Leadership Team and Review/Writing Team to ensure the document is written in a manner to accurately and effectively capture the details for the creation of the strategic plan.

SECTION CHIEFS/ DIRECTORS

Provides overall expertise and insight to specific areas within the strategic plan, and also manages teams or individuals that write and edit basic drafts for specific sections or areas of the plan

FIRE AUTHORITY BOARD OF DIRECTORS/ **Steering Committee**

- Jeff Swanty…… Board Chairman/ Rural Board member
- Cecil Gutierrez…….. Board Vice-Chair/ Mayor City of Loveland
- John Fogle……. Board member/ City Council member
- Dave Legits……... Board member/ Rural Board member
- Steve Adams……. Board member/ City Manager of Loveland

PLAN REVIEW WRITING TEAM / **Fire Rescue Advisory Commission** (FRAC)

- Jon Smela …… Team member/ FRAC chair
- Janet Bailey ……. Team member/ past FRAC chair
- Elton Bingham …… Team member
- Paul Pfeiffer …… Team member
- Leo Wotan …….. Team member
- Andy Anderson ……... Team member/Rural Board member rep.
- Bonnie Wright ……. Team member/administrative technician

STRATEGIC PLANNING LEADERS/ DIRECTORS

- Mark Miller……. Fire Chief
- Ned Sparks ……..... Division Chief
- Greg Ward ……. Division Chief
- Renee Wheeler ……... Administrative Director
- Michael Cerovski ……... Battalion Chief
- Rick Davis ……. .Battalion Chief
- Tim Smith ……... Battalion Chief
- Jason Starck …… Battalion Chief
- Shawn Neal …… Battalion Chief (Canyon)
- Randy Lesher ……. EMS Chief, Thompson Valley
- Randy Mirowski …… Strategic Plan Facilitator

The *Plan Review Writing Team* was made up of members from the city's Fire Rescue Advisory Commission (FRAC), a Rural District Board member, and a representative from the Loveland City Council. This group functioned as the plan's final review group. They emphasized the reviewing and evaluating of each initiative and action point and ensured that the document was written in “plain speech” and easily understandable at the citizen level. The review and writing group met at least monthly and kept the process moving forward and in the correct direction to meet the targeted timelines. The Fire Authority Board also contributed to the planning process by acting as the steering committee, providing overall direction, setting the goals, and approving the objectives set for the strategic planning process. The fire chief worked directly for the Authority Board and provided direction to the review and writing team and the plan facilitator. The chief ensured that the Board’s directions and goals were carried out and included within the plan. The plan facilitator functioned as the liaison from the Authority Board to the other team members and commission members to ensure consistency of mission and completion of planning processes.

The Strategic Planning Commission leaders and directors provided expertise and input within their specific areas, but also offered counsel and leadership into virtually every aspect of the planning process. Other officers and firefighters contributed to the construct of the plan in a variety of ways from offering their expertise and experience to assisting chief officers and directors with developing specific areas within the plan. As with any endeavor of this magnitude, it takes the entire organization to play a role in the planning and construction of a manuscript that functions as a guiding document for future expansion and operations.

ACCURACY OF STRATEGIC PLANNING

Strategic planning is certainly not an exact science. Forecasting events that will take place five to ten years out is an imprecise process. However, with the proper assessment processes in place, and a reliance on solid metrics and past performance data, this inexact science can become much more empirical and accurate. The methodologies used within this plan represent proven models and, in many cases, best practices and sound industry standards. The success and accuracy of the *2012 LFRA Strategic Plan* allows the planning and leadership team to be very optimistic about the viability and accurateness expected for the *2018 LFRA Strategic Plan*. Nevertheless, LFRA leadership should build in an annual review process where information is compared to and tested against the planning assumptions and forecasting that is represented within this plan.

ORGANIZATION OF THE STRATEGIC PLAN DOCUMENT

The *2018 LFRA Strategic Plan* is organized into 10 sections with an Appendix:

SECTION I: Executive Summary - A brief overview of the entire document with a focus on history, process, and the *Essential Services Expansion Plan (ESEP).*

SECTION II: Introduction - Establishes the case for strategic planning and anticipated benefits; addresses the data portion, its accuracy, and the overall scope of the strategic plan.

SECTION III: Loveland Fire Rescue and the Fire Authority - Basic Planning Assumptions Includes a brief overview of the organization, funding, and future revenue allocations of the Fire Authority along with the mission, vision, values, and basic planning assumptions.

SECTION IV: The Fire Protection and Emergency Services Situation - Covers the basic demographics of the response area including population, projected growth, vulnerability, forecasting, and current emergency services. Includes a comparison to other regional departments.

SECTION V: Staffing and Deployment - Highlights the basic staffing and deployment needs for LFRA and the rationale for such staffing levels, and gives an overview of the future staffing models and their impact on operations and financial planning.

SECTION VI: Essential Services Expansion Plan (ESEP*) -* Includes the history of expansion planning and the new *Essential Services Expansion Plan*. This plan includes areas such as current and future staffing needs, large capital purchase and replacement, and facilities remodel and expansion. There is a three-phased process for implementation, timelines and likely costs.

SECTION VII: Specialized Areas - This section highlights future needs and the specific services provided within the specialized areas including Wildland, Specialized Operations Team, Training, Tac-Fire, and Emergency Medical Services (EMS).

SECTION VIII: Community Safety Division, Emergency Management and Accreditation - In the *2018 LFRA Strategic Plan*, the Community Safety Division (CSD) will have its own section. The needed expansion of the responsibilities of this division over the last five years has resulted in significant community impact within the planning and building environment, within inspection services and code enforcement, in emergency management and disaster planning, and in public education and department accreditation. These areas are explained in this section.

SECTION IX: Fire Protection and Emergency Services - Goals, Strategies, and Performance Measurements This section creates and establishes the organizational goals and objectives and identifies the service level indicators that will be used to track and measure organizational performance during the operational period of the *2018 LFRA Strategic Plan*.

SECTION X: Recommendations/Implementation - Recommendations and timelines are listed in this final section.

APPENDIX: Contains associated documents that are linked to the plan, including:

- **Glossary of Terms**
- **Planning Assumptions**
- **LFRA Intergovernmental Agreement** (4th Amendment)

COMPENDIUM: A separate, summary document of the business modules/sections of this plan.

SCOPE OF THE STRATEGIC PLAN

The intent of the *2018 LFRA Strategic Plan* is primarily to provide guidance in formulating major policy decisions and setting overall direction for the fire authority. The overall scope of this plan has been to focus on the needed changes for Loveland Fire Rescue Authority, both strategically and operationally, and in the areas of capital expansion and ongoing expenses for operation and maintenance (O&M). A significant emphasis within the document is how these changes and improvements impact:

- Taxpayers in the region.
- Performance of the fire protection and emergency services systems.
- New and existing development.
- Safety of the public and emergency services personnel.
- Future expansion and needs for staffing and services.

Items such as equipment specifications, operating procedures, and resource management have, for the most part, been purposely omitted from this plan. These relate more to operational or task levels and can be best addressed in other documents and procedures within the organization.

Another area that has been purposely omitted from this plan is a detailed analysis for a funding mechanism to achieve the specific initiatives of the expansion that is listed in the *Essential Services Expansion Plan*. For the purpose of this strategic plan, it is acknowledged that in order for the needed improvements in equipment, facilities, staffing, and services to occur, both the City of Loveland and the Loveland Rural Fire Protection District will need to increase their contribution to the Fire Authority

It is extremely important to emphasize that the *2018 LFRA Strategic Plan* is dynamic and may need to be adjusted over time. The most significant aspect of this plan is that it establishes a framework for formulating and addressing changes and improvements in the fire protection and emergency services situation in the future. Periodic reviews and updates will be necessary to keep up with the changing environment and the economic profile of the community. Review of this strategic plan will be done once a year within the organization's annual report. However, it is expected that in a general manner more frequent reviews will occur for monthly reports and updates for the organization as part of a "Plan, Do, Check, Act" process.

One final point about strategic planning is included in this section relating to the "Scope." It should be understood that strategic planning, by its nature, is not an exact science. During the years of 2018-2026, there may be other organizational initiatives that develop that are not identified within this strategic plan. However, every effort has been made to evaluate, forecast and plan for the future strategic needs of LFRA and include them in this document.

III. LOVELAND FIRE RESCUE & THE FIRE AUTHORITY- BASIC PLANNING ASSUMPTIONS

ORGANIZATIONAL BRIEF

Loveland Fire Rescue Authority (LFRA) is a consolidated fire protection and emergency service agency specializing in fire and rescue-related services. LFRA serves the City of Loveland (City) and the Loveland Rural Fire Protection District (Rural District) covering approximately 190 square miles of area. The organization's 86 full-time uniformed members, its six civilian support staff members, and approximately 20 firefighter volunteers provide the workforce for the agency. LFRA operates a total of eight fire stations. Five stations are staffed 24 hours, seven days per week; two volunteer stations are located in the Big Thompson Canyon. One station at the Northern Colorado Regional Airport is staffed on an as-needed basis for aircraft flight stand-by services. One full-time paid LFRA engineer manages fire and emergency operations at the airport station. Within the Rural District are portions of the communities of Johnstown (I-25 & Hwy 34), Drake, Masonville, Storm Mountain, and the Pinewood Reservoir area. In 2017 nearly 100,000 people live within the area served by LFRA.

LFRA was formed in January of 2012 with the consolidation of the City of Loveland fire department (Loveland Fire and Rescue) and the Loveland Rural Fire Protection District. The City and Rural District adopted an intergovernmental agreement (IGA) contract establishing the Fire Authority. The IGA is the basis of LFRA's existence and outlines the governance, management, funding formulas, and operation of the Fire Authority. A five-person board of directors, appointed by the City Council and Rural District Board, governs LFRA. The board includes two city council members, two rural board members, and the City Manager of Loveland. The fire chief is an LFRA employee and serves the Fire Authority board, works as part of the City's Management Team, and acts as a fire chief/liaison to the Rural District Board. All firefighters and civilians that work for LFRA are authority employees. LFRA is organized into three divisions and five battalions. The three divisions include Suppression, Community Safety, and Administrative Services. There are three shift battalions, a training battalion, and the Big Thompson Canyon battalion.

FUNDING FOR THE FIRE AUTHORITY

LFRA is funded by the City of Loveland and the Loveland Rural Fire Protection District through a combination of property taxes in the rural district plus property and sales taxes in the city via the general fund. LFRA also generates revenue from building impact fees within the district, from fire prevention-related permits, and from reimbursements for fire-rescue services for wildland and specialized deployments. For 2017 LFRA had a base budget of approximately 13.9 million dollars; additional LFRA-generated revenue totaled nearly $300,000. Combined, the total budget for LFRA for 2017 was approximately $14.2 million dollars. Capital expenditures vary from year to year depending on equipment purchases and facility construction or improvement. Funds are received from the city's capital replacement fund, capital expansion fees (CEFs) or impact fees, and capital dollars from the rural district. Starting in 2017 the Fire Authority's funding for apparatus is financed through annual contributions from the city and rural district at an 82% (City) and 18% (Rural) ratio. Section VI contains the expanded financial plan and various capital and Operation & Maintenance (O&M) models for the Fire Authority for the *2018 LFRA Strategic Plan*.

LFRA City/ District Map

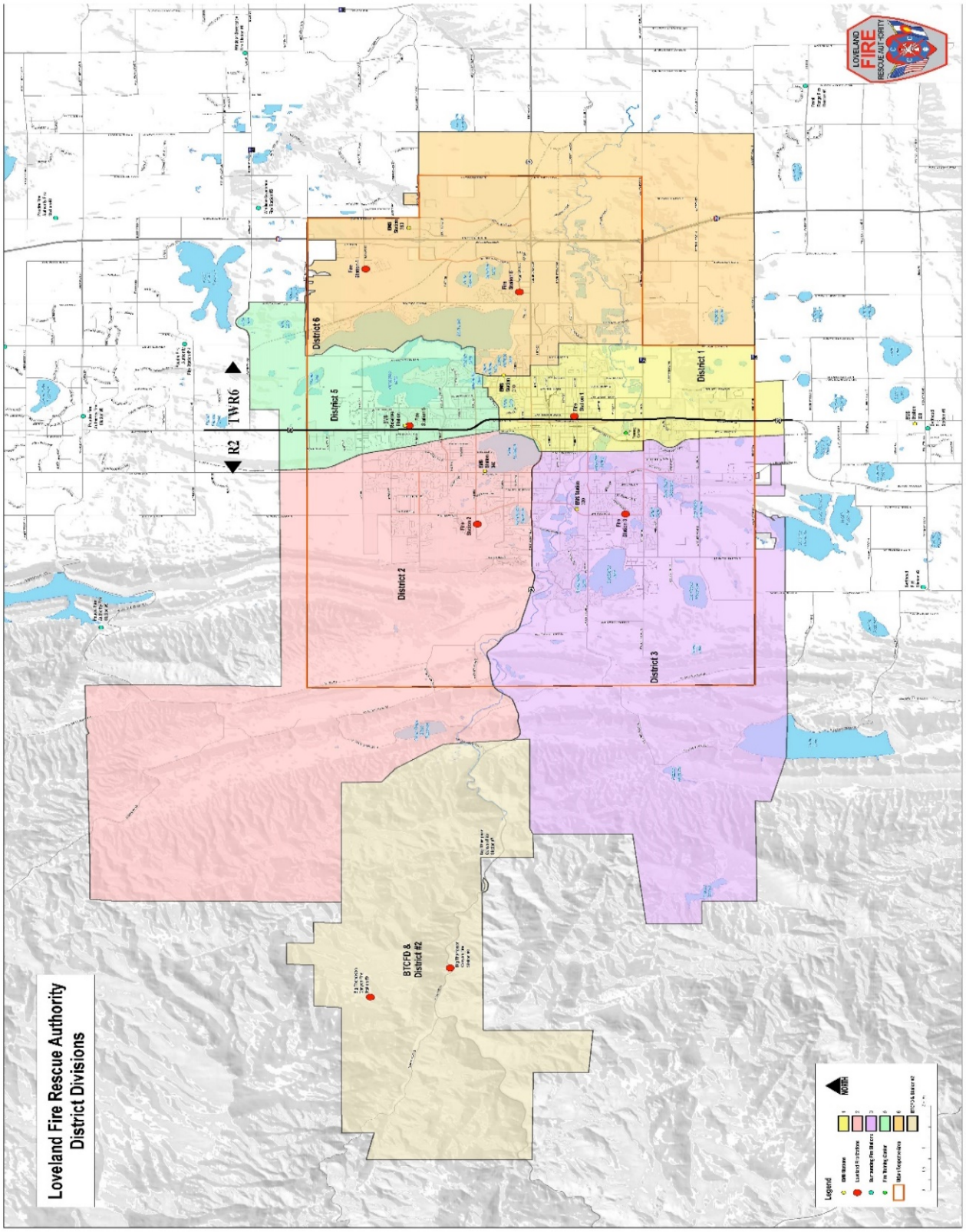


Figure 3-1 *City/District Map*

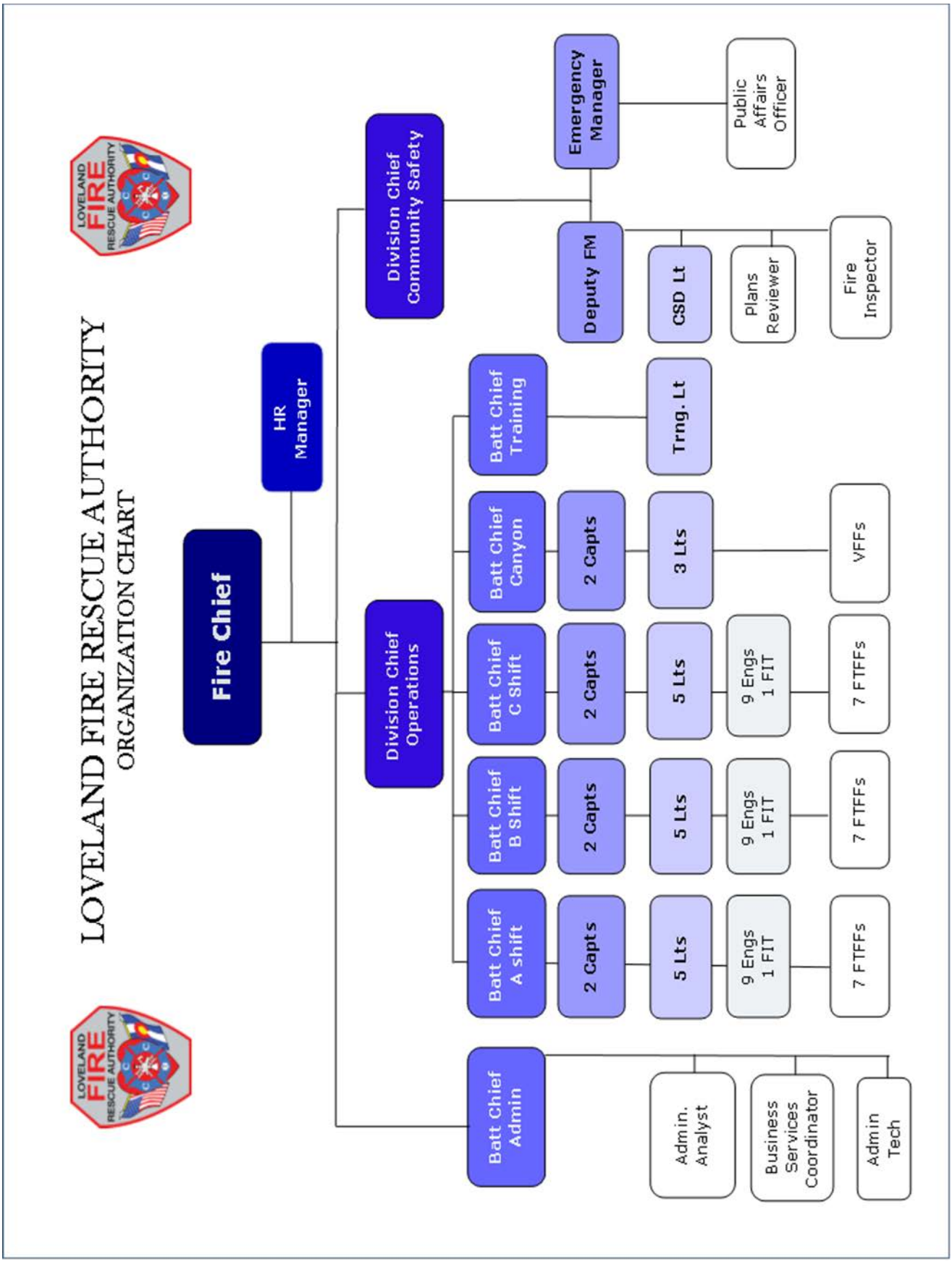


Figure 3-2 *LFRA Organizational Chart*

FUNDING AND THE REVENUE ALLOCATION FORMULA

The Fire Authority uses a Revenue Allocation Formula (RAF) for determining the contribution ratio for both the City of Loveland and the Loveland Rural Fire Protection District. The IGA for the Fire Authority breaks out the ratio as follows:

* City of Loveland contribution	82%
* Loveland Rural District contribution	18%
Total contribution for full cost budgeting	100%

The RAF is based primarily on call load, or more specifically the percentage of calls that firefighters respond to in the City and Rural District. These percentages are not intended to be exact, but rather a target representing the call volume and workload over a longer period of time. Trending to achieve these percentages for the RAF spanned more than 20 years from 1990-2010. In 2016 the authority began to look at other dimensions, including assessed property valuation and actual time spent on calls in the City and Rural District. For the *2018 LFRA Strategic Plan* the RAF will remain at the original 82%-18% ratio. However, these percentages, and the entire RAF, should be reviewed periodically for accuracy and equality for both the City and Rural District.

VISION, MISSION, AND VALUES STATEMENTS

Loveland Fire Rescue Authority is committed to providing the highest quality services for the citizens that are served by the department. The Vision, Mission, and Values are expressed as:

- **Vision -** *"To go from Good to Great and Build the Organization to Last with Enduring Greatness."*
- **Mission -** *"Through commitment, compassion, and courage, the mission of the Loveland Fire & Rescue Authority is to protect life and property."*
- **Values -** *Commitment, Compassion, and Courage*

The Mission for LFRA is specifically carried out through "The Four R's": Response, Readiness, Resources, and Relationships. These four areas are the centerpieces of the organization's efforts to carry out the mission. The Four R's (in essence) express *"what"* LFRA is doing and focusing on to accomplish the mission in the most consistent and effective manner possible.

The three values listed in the mission statement, Commitment, Compassion, and Courage, express *"how"* LFRA carries out its mission. These three values are the hallmark and heritage of the American fire service. LFRA has adopted these timeless values as a benchmark for measuring the department's members and the services that are provided to ensure that the desired quality is continually and consistently being provided. The vision for the organization also embraces the concept of continuous improvement with each and every member doing all that he or she can do to help ensure that LFRA stays on a pathway of *enduring greatness*. LFRA is committed to delivering the best possible citizen service to the community with promptness and professionalism. The vision includes continually seeking ways to enhance citizen services and citizen and firefighter safety and survival within the framework of the organization's service delivery model. One of the authority's most desired outcomes is to be recognized by the community of Loveland and those in the fire service community as a model of excellence in providing fire protection and emergency services in the most cost-effective manner.

BASIC PLANNING ASSUMPTIONS

The basic planning assumptions for LFRA are broken out into two distinct areas: **Stage One** and **Stage Two**. Stage One covers eight basic assumptions that serve as the foundation of this plan for the years 2018-2026. The planning assumptions listed in Stage One have identified goals and objectives and cost estimates for many of the areas of expansion or improvement. Stage Two is based on long-term expectations of what may occur beyond 2026. It is more general and contains no set goals or objectives or costs, but rather initiatives that are likely to be needed. The basic planning assumptions are the forecasting tools for staffing and large capital expenses only.

Planning Assumptions for Loveland Fire Rescue Authority for Stage One and Stage Two
Stage 1 assumptions are more specific and listed for years 2018-2026

Stage One Planning Assumptions

1. ***Service Levels Provided*** **-** The Fire Authority expects to maintain or improve current City and Rural District response service levels and those projected for future expansion.
2. ***Population Expansion*** **-** Projections for expansion will assume a continuing growth of 2% to 2.5% per year from 2018-2026. This would calculate into a population of approximately 122,000 in 2026 for the Fire Authority service area or response area.
3. ***Station/Fire Company Expansion*** **-** Projections for replacement or addition of new fire stations and staffing would include:
   - *Adding 2 fully staffed fire stations - 18 new positions to staff these new stations.*
   - *Adding 3 full time positions for coverage or shift fill-in.*
   - *Adding 3 full-time positions for Heavy Rescue 2*
   - *Adding 3 full time positions for the addition of three new shift battalion chiefs.*
   - *Adding two Quick Response Vehicles (first QRV will be placed in area of need).*
4. ***Workforce Staffing Methods*** **-** Projections for Stage One include the use of both full-time paid and volunteer firefighters. Stations within the Urban Response Areas (URA) would be staffed with full-time paid firefighters and with minimum staffing at three firefighters per company. Volunteer firefighters will staff Big Thompson Canyon stations.
5. ***Airport Expansion*** **-** Northern Colorado Regional Airport is expected to expand its services in the near future. The number of larger passenger flights will likely increase in the next two-three years. More personnel and other firefighting resources will be needed if this expansion occurs. One QRV may be utilized to address the initial expansion of services.
6. ***Additional Non-Uniformed FTEs*** **-** Projections for workforce expansion in this area should include an IT specialist, an additional administrative assistant, and additional part time inspectors and plan reviewers in the Community Safety Division.
7. ***Completion of the Accreditation Process*****-** The Fire Authority expects to become a fully accredited agency through the Commission on Fire Accreditation (CFAI) and will have in place plans for ongoing re-accreditation after the initial certification.
8. ***Selection of the Essential Services Expansion Plan (ESEP)*** **–** The Essential Services Expansion Plan is to be the strategy of choice for the *2018 LFRA Strategic Plan*.

Stage Two Planning Assumptions

Stage Two *(2027-2035) will include planning expectations without identified funding streams. These planning assumptions are expected to be very general and based on a historical and projected forecast of what the department's needs will be during this timeframe.*

1. ***Organizational Planning Goals/Expectations*** **-** Projections for this next phase (2027-2035) should include ***consideration*** for:
   - Expansion of the training center and completion of its master plan.
   - Relocation of Fire Station One and/or LFRA's Headquarters and Administration and the Community Safety Division.
   - Full staffing of the airport station (Station 4) for area coverage, and the addressing of more expanded airport operations and/or expansion in the commercial business park or commercial area around the airport. This will be reviewed on an "as needed basis" within the City of Loveland and the Rural District's planning process, and periodically with the Airport Director and the Director of Public Works to ensure proper service level needs are maintained.
   - Addition of one fire station to the south/southeast corridor, projected for the area of South Boise and Highway 402, depending on growth and service level needs.
   - Expansion of an additional truck/ heavy rescue company.
   - Expansion for a paid staff position for Big Thompson Canyon station (40-hour training and response position).
   - Expansion of resources for the wildland urban interface area, including prevention, mitigation and enforcement functions.
   - Expansion of the staff within the training division.
   - Increase of minimum staffing from three firefighters per company to four firefighters for specific companies (ex. truck, heavy rescue squad and some specific engine companies).

2. ***Workforce Staffing Analysis*** **-** Projections in Stage 2 should include a comprehensive analysis of the three-person staffing system for each fire company. The authority should conduct this analysis utilizing the latest available research and data to best meet the community's fire/rescue needs. This analysis would include:
   - Workforce staffing model for both three-person and four-person engine companies.
   - Use of the Quick Response Vehicle as part of the overall workforce-staffing model.
   - Review of 24-hour shift staffing models including the traditional models (Berkley system currently in use at LFRA), the 48-96 system (currently in use in other regional departments), and other shift staffing models.
   - A workforce staffing and needs analysis of the Big Thompson Canyon area.
   - Impacts of staffing and workload within the criteria established for the authority's accreditation.
   - Any other workload/staffing issues and impacts.

IV. THE FIRE AND EMERGENCY SERVICES SITUATION

THE PLANNING AREA PROFILE

The City of Loveland and the Loveland Rural Fire Protection District area are located 50 miles directly north of Denver, Colorado, along the eastern foothills of the Rocky Mountains and the Arapaho and Roosevelt National Forest. The planning area includes the City of Loveland, Big Thompson Canyon, Masonville, Pinewood Reservoir, Drake, and a portion of the city of Johnstown at I-25 and Highway (Hwy) 34.

The planning area encompasses 190 square miles. Within this area land uses vary from high-rise hotels and apartment buildings to agriculture and farm acreage. The expected population in year 2017 is expected to climb to approximately 100,000 people, with nearly 76,000 living within the City of Loveland and approximately 24,000 living in the Rural Fire Protection District (see page 28 for more specific population numbers). The population in the planning area is expected to grow to approximately 122,000 by the year 2026. The additional people are expected to live mostly in higher densities and work in a variety of new businesses and high tech companies with an emphasis on clean and new or alternative energy sources. This expected growth could be dramatically influenced with the addition of and expansion of new industries within the response area of LFRA. This strategic plan's focus is on predictable business expansion and residential growth, not for high impact and growth ventures within industry or other large manufacturing business.

Loveland Fire Rescue Authority (LFRA) provides fire protection to a total area of 190 square miles; Thompson Valley EMS responds to an even larger area beyond the scope of LFRA's responsibility. This strategic plan will take into account the entire urban and rural area in its scope. However, a more specific focus is placed on the Urban Response Area, which covers roughly 100 square miles. The wildland urban interface area (WUI) is addressed as a separate theater for operations; information about this can be found in Section VII, Specialized Areas. The topography of the WUI planning area is predominantly low, rolling hills, directly adjacent to the eastern range of the Rocky Mountains at an average elevation of over 5000 feet above sea level. There are also steep mountainous areas within the wildland urban interface zone that have elevations well over 7000 feet above sea level. The Big Thompson River runs diagonally from the west through the planning region. The planning area also contains numerous streams, lakes, and ponds.

The Loveland area enjoys a moderate climate with an annual average of more than 300 days of sunshine. The relatively low humidity tends to make winters feel warmer and summers cooler than might be experienced in the Midwestern part of the country. The average high and low temperatures range from 86 degrees F in July to a low average of 14 degrees F in January. The area receives approximately 13.9 inches of annual precipitation. While the area typically receives moderate amounts of snowfall, snow can and often does become extreme, particularly in the months of March and April.

Housing within the planning area ranges from high-density apartments to widely separated farm and ranch acreages. Housing surveys conducted by the City of Loveland *Annual Data and Assumptions Report-2016* revealed approximately 32,000 units within the city in 2017.

The Loveland community is rapidly becoming a major retail and financial center serving northern Colorado. Retail centers such as Centerra, other regional and neighborhood shopping

malls, and the downtown centers make up the majority of the shopping in the planning region. Other areas of commerce include the growing Crossroads Boulevard Center, which includes The Ranch (Larimer County Fairgrounds) and the Embassy Suites and other retail and hotel complexes. At the time of this writing (2017), there is speculation about the sizeable development of *The Brands* project in this same area. The 25-34 area (Johnstown) is also a rapidly expanding commercial area in the rural fire protection district. The technology projects housed within the site of the old Agilent/HP site (RMCIT) are expected to become important future employers in the region. Agriculture also plays a significant role in the local economy and commerce in the planning area, although with the closure of the Great Western Sugar factory, there is no longer a major agricultural product processing facility within the planning area.

Within the planning area is an interstate highway to the east (I-25), a major state highway running north and south through the middle of the fire-rescue response boundaries (HWY 287), and a U.S. highway running east and west (Hwy 34). Major railroad lines used for freight transport run through the city and rural district. In the northeast portion of the planning region resides the Northern Colorado Regional Airport. This air transportation center will be home to several airlines offering direct passenger flights to many cities in the west and southwestern part of the country. The industrial and commercial park adjacent to the airport continues to show growth and could be a major economic factor in the planning area's population growth and development.

URBAN AND RURAL RESPONSE AREA

LFRA provides fire protection and rescue and emergency medical services for basic life support to a large area encompassing both urban and rural environments. In this strategic plan, reference will often be made to the Urban Response Area (URA) and Rural Response Area (RRA). This two-fold viewpoint (urban and rural) is consistent with the perspectives utilized by the U.S. Census Bureau and other accrediting agencies. Data for response and other measurables are calculated in both the urban and rural areas with different planning assumptions and expectations. The URA makes up over 100 square miles of LFRA’s response area and is the area where the vast majority of the population lives. Even though LFRA strives to maintain as much uniformity as possible in its service delivery, it does recognize that these two areas (urban and rural) are distinctly different environments. It is unrealistic for citizens living in the more remote areas of the rural district to receive the same level of service, relative to response times and deployment metrics, as those living in the City of Loveland. There are differences in fire risk, resident expectations, and environments where fire-rescue personnel are expected to operate; the single most important factor creating this difference is the distance from the nearest fire station. Along with this premise, the expected drive times between URA and RRA are significantly different. While LFRA makes every effort to have similar staffing levels and equipment responses to calls in the URA and the RRA, the drive time factor creates the largest difference in the overall response, service delivery, and often in the outcome of the emergency call. With these two distinctly different environments, it is difficult, by comparison, to have effective performance measurements that can be applied homogeneously. For this reason, LFRA has chosen to target differing metrics and response/drive times for the URA and for the emergency calls in the RRA (see page 25).

In general, the Urban Response Area is defined as the City of Loveland and the adjacent surrounding urban areas of the Loveland Rural Fire Protection District. The more specific

definition of this area includes the area bordered on the north by County Road 30, to the east by County Road 3 (intersecting with Hwy 402 then to County Road 11), to the south by 42nd Street, and to the west by County Road 29. This entire area is known as the Urban Response Area or URA. It encompasses approximately 100 square miles of LFRA's 190 square miles of response area, or approximately 53% of the physical area. This area is also very similar to what Larimer County has identified as its Growth Management Area (GMA) that is essentially based on an ability to provide urban level services to these areas.

The rural area for LFRA features a substantial amount of mountainous areas that have, in the past, been considered as "remote" or "wilderness" areas. These areas are sparsely populated and particularly difficult to access in a reasonable amount of time for emergency services. Consequently, for some of these areas, response times for fire apparatus expands to 20-30 minutes or more for the first arriving tactical unit. Fortunately, the call loads in these areas are also very low. For these reasons, LFRA has chosen to include these remote and wilderness areas into the data tracked and time measurements for the RRA. Again, this is consistent with data used for the census and for LFRA's accrediting agency.

TIME MEASUREMENTS IN THE URA AND RRA

LFRA has established separate goals and benchmarks for response in the URA and in the RRA. These are primarily defined by their location and drive times from the nearest fire station. They are based on a premise, in general, that meets the intent of national fire service response standards (found in NFPA 1710) that suggest the sooner the arrival of fire-rescue resources, the better the chance for saving lives and property. The premise is built, and applied nationally by many fire departments, around a five-minute drive time, as part of the total response time collective for an emergency incident. LFRA has established the following response/ time criteria for the URA and the RRA. The criteria have a variable of 90% of the time to match what is prescribed in other national standards for emergency response (example NFPA 1710).

Urban Response Area (URA)
Area established by: Five minute drive time from the nearest full-time paid fire station.
Response goal: Arrive at emergencies within 6 min 30 sec after being dispatched 90% of the time.

Rural Response Area (RRA)
Area established by: Outer edge/ boundary of URA and the remaining area of fire district.
Response goal: Arrive at emergencies within 16 min 30 sec after being dispatched 90% of the time.

More detailed information on the response/ time criteria can be found on page 34 (Section V- Staffing and Deployment). LFRA will utilize the information and data gathered for emergency response into these two areas for comparison to our set response criteria and our actual performance. At the present time (2017) LFRA cannot meet these standards for the URA and RRA. However, once Stations Seven and Ten are built and operational, calculations suggest that these standards can and will be met. A map of these boundaries and the defined URA and RRA are listed in Figure 4-1.

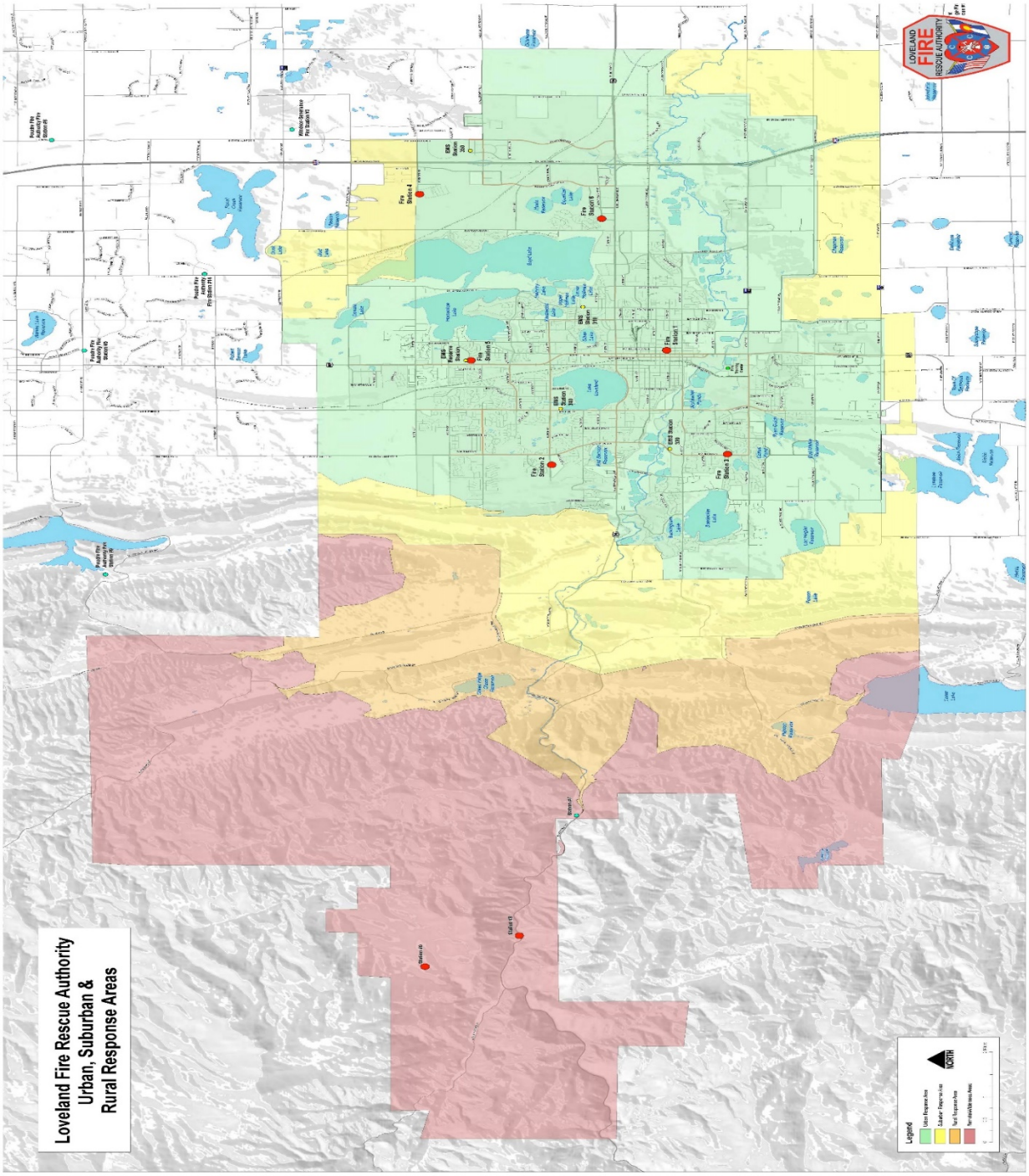


Figure 4-1 *Urban & Rural Response Area*

VULNERABILITY ASSESSMENT

Loveland Fire Rescue Authority's response district is situated along the eastern edge of the Rocky Mountains. The area's most prominent geological features are the Rocky Mountain Range to the west and numerous fresh water lakes, ponds, rivers, and waterways throughout the district. The elevation in the city is 4982 feet above sea level, but in other areas to the west the elevation can be over 7000 feet. There are more than 704 curb miles of streets in the City of Loveland alone and an undetermined number of county roads and unimproved travel ways within the Rural Fire Protection District. The transportation infrastructure consists of one major interstate highway (I-25), which has a north-south perspective, and one U.S. highway (Hwy 34), which has an east-west perspective. These two highways, along with Highway 287, handle the bulk of traffic in the area. Connections to two other major interstate highways are less than 60 miles in either a north or south direction. The area also has a major railway corridor, used primarily for freight transportation, and a general aviation airport, shared with the City of Fort Collins, that provides both private and commercial air services. Burlington Northern Santa Fe (BNSF), Great Western, and the Union Pacific railroads use the referenced rail system.

Most of Colorado's population, industrial and commercial development, and the seat of state government are located along the Colorado Front Range. Tourism, one of the most vibrant industries in the state, accounts for a large portion of out-of-state visitors using the Front Range areas as part of their visitation and vacation destinations. Given the high population concentration, major industrial activities, and history of disaster events, the Front Range represents the area of greatest vulnerability for repeated occurrences of civilian death and injuries and disastrous events. The combination of high hazard areas and large numbers of out-of-state visitors who are unfamiliar with local conditions and emergency response capabilities represents a unique emergency planning and response challenge to both state and local governments and responders.

Larimer County and the entire Loveland area have experienced many natural and man-made emergency incidents and disasters; the area continues to be vulnerable to floods, wildfires, hazardous materials incidents, and other weather-related incidents including tornadoes and wind-driven events. In 2013 Loveland and the entire northern Colorado area experienced a devastating flood. As a result many changes were made in both the City's mitigation plan and that of Larimer County. The City of Loveland Office of Emergency Management has been the driving force behind the creation of specific, Loveland-area hazard identification and risk management (see Section VIII: Community Safety Division). Information on floods and other hazards at the county level is available in the ***Larimer County** 2016 **Hazard Mitigation Plan Risk Assessment***.

Visit: https://larimercompplan.com/maplibrary/larimer-county-2016-hazard-mitigation-plan-risk-assessment Another specific analysis for LFRA's area hazards and vulnerability was conducted in the years 2014-2016; these efforts were all a part of the accreditation process and application for Loveland Fire Rescue Authority with the Commission on Fire Accreditation International (CFAI). One document/report with several critical areas was produced as part of the evaluation process: *Community Risk Assessment: Standards of Cover.* This report serves as an integrated risk management plan combining the community risk analysis component and written procedures for fixed resources and response to hazards and emergencies (see Section VIII Community Safety Division for more information on this topic). The next portion of this document evaluates the expected population growth and the current emergency services situation.

POPULATION AND URBAN GROWTH

Of all of the future events that may affect local fire protection and emergency medical and rescue services, the aspects of rapid or unanticipated growth may be the most significant. Fire service agencies must utilize population growth assessments to enable them to forecast and maintain the proper number of firefighters and fire stations to provide an appropriate level of service for the community.

In 2016 the population in the City of Loveland was estimated at 74,427, and the population in the Loveland Rural Fire Protection District was estimated at 22,950 for a total population estimate in the entire planning area of 97,377. Between the years 2018 and 2026, LFRA is planning for a growth rate of approximately 2.5% per year for the City and approximately 2% per year for the Rural District. During the subsequent years of 2027-2035, the total growth rate in the City and Rural District is expected to be between 1.7%-2.2%. These numbers were gleaned from the City of Loveland's *Annual Data and Assumptions Report (2016)* and Larimer County's own website. A projected population in the planning area of approximately 122,275 should be expected in the year 2026 (see Figure 4-2 for an estimate of year-by-year expansion).

YEAR	ESTIMATED POPULATION
2016	97,377
2017	99,021
2018	101,365
2019	103,767
2020	106,319
2021	108,933
2022	111,613
2023	114,359
2024	117,174
2025	119,697
2026	122,275

Figure 4-2. *Population Estimates*

It should be noted that these planning assumptions for population growth are based on normal expansion and could be significantly impacted with large commercial or high tech facilities coming into the area. At the time of this writing, the expansion of the 25-34 (Johnstown) area is underway with large commercial retail facilities under construction. It is expected that urban growth in new areas will continue to develop along the lines of employment and retail centers.

Another important, unclear factor, at least at the time of this writing, is the effect of the Loveland downtown expansion and development effort. It is unclear how this growth will change population expectations and the subsequent impact or demand for emergency services.

LFRA has utilized a more conservative approach in forecasting the increases in population for the planning region. A 2% to 2.5% growth factor for years 2018-2026 was used (as opposed to a 3% to 4% increase that is being used by some demographers). An important use of these population estimates is in the planning for the appropriate number of firefighters an organization should have. It is within these planning assumptions for population growth that important decisions are made related to emergency response and needed staffing levels.

Historically, it has been difficult to precisely determine the number of firefighters needed within a given city or district; much of this depends on services provided. LFRA is considered a “full-service” provider for fire related services; this would include structural firefighting and emergency medical services at the basic life support level. Beyond these “norms” the organization also provides various technical specialized rescue services, wildland urban interface firefighting operations, a hazardous materials response team, large animal rescue operations, and assistance to the Loveland Police Department’s SWAT (Tac-Fire), and it operates a full-service training center. In addition, the Community Safety Division offers a complete array of services including fire prevention activities, public education, plan review, code enforcement, and investigation services. LFRA often provides more services than many of its comparison fire departments in the northern Colorado region.

One common planning dimension used to correctly predict the number of needed personnel identifies the number of firefighters per 1000 population in a given city or district. The National Fire Protection Association (NFPA) in its assessments of workforce-staffing analyses uses this dimension. LFRA uses the dimension of firefighters per 1000 population in conjunction with several other dimensions to gain a more complete picture of its workforce-staffing model and its ability to provide a high quality level of emergency services to the community. The ability to accurately predict the population growth over a period of time within a given response area can have a direct impact on accurate predictions for needed resources, staffing, and equipment. For strategic planning, the calculations for population growth are integral and essential for LFRA to be able to plan for and keep pace with growth and to maintain the desired level of emergency services. Thus, for planning purposes, the most important aspect in using population estimates is their accuracy. In order to ensure accuracy, these estimates must be reviewed and adjusted periodically, particularly when staffing issues are affected.

Other dimensions besides population growth and the number of firefighters per 1000 population are needed for a complete picture of the organization’s capabilities and needs. Another important analysis dimension is found in LFRA’s staffing and deployment model.

CURRENT EMERGENCY SERVICES SITUATION-RESPONSE/ STAFFING

The Fire Suppression Division (Operations) represents the largest division within the Fire Authority and is directly responsible for handling emergency situations and calls for citizen service. This division responds to fire and rescue calls, emergency medical calls, specialized rescue calls, wildland fires, haz-mat calls, and a myriad of other service requests. The staffing model is predominantly one using fully paid firefighters; however, emergency calls outside the Urban Response Area will also be augmented by volunteer firefighters. The deployment model utilized by LFRA is what is considered a more traditional model utilizing engine companies and truck or support companies to mitigate emergencies at the strategic, tactical, and task level. Staffing and deployment models are built around the structure fire model with the goal of meeting the intent of minimum staffing standards as outlined by the National Fire Protection Association (NFPA).

SINGLE ENGINE RESPONSE - (one engine company with three firefighters)

- Emergency medical calls (only life-threatening calls: Charlie, Delta, Echo)
- Rubbish fires
- Grass fires
- Automobile fires
- Any other minor outdoor fire
- Citizen assist

STRUCTURE FIRES - (multiple engine companies and truck/support companies)

• First Alarm Assignment:	- 2 engine companies (closest)	6 personnel
	- 1 truck company	3 personnel
	- 1 heavy rescue/ squad company	3 personnel
	- 1 on-deck engine/emergency reserve company	3 personnel
	- 1 battalion chief (Command)	1 personnel
	Total Resources Needed	16 personnel
• Second Alarm Assignment	- 2 additional engine companies	6 personnel
	- Shift and staff recall	
	- Notification for mutual aid coverage	

Based on the above staffing/deployment model, LFRA can be expected to extinguish a fire in a building or a fire-separated area of up to an average of 5000 square feet with a first alarm assignment. A second alarm assignment could then be expected to extinguish a fire in a building or fire-separated area up to 10,000 square feet. These estimates assume an average fire flow produced by the attacking engine companies, adequate truck or support functions being performed, and a building where the fire has not progressed to the flashover level and has at or below 50% involvement with fire. Other variables could impact these estimates, but for planning purposes these predictions have proven reliable in other fire departments and fire agencies. In all of these models, interior firefighting operations are pre-supposed as the tactical norm *(for more detailed information, see Section V-Staffing and Deployment).*

EMERGENCY SERVICES SITUATION - FACILITIES/ STATIONS AND APPARATUS

Loveland Fire Rescue Authority currently operates five stations staffed by paid personnel in the Urban Response Area (URA) and two auxiliary stations located outside the Rural Response Area staffed by volunteers. The volunteer stations are located in the Big Thompson Canyon and Storm Mountain areas. In addition, the department operates (staffs) a fire station at the Northern Colorado Regional Airport on an as-needed basis. LFRA also operates a full-service training center. Seven of these stations/areas are in excellent or good condition, while two, Fire Stations Three and Five, have been deemed to be "undesirable or "undersized." Most of the issues revolve around age and size limitations; Station Three is nearly 40 years old (at the time of this writing) and is nearing the end of its life cycle. Cost estimates for remodeling have been done for each of these two stations and are included in the *Essential Services Expansion Plan*. Stations Three and Five were constructed at a time when Loveland was a combination department and normalcy was two paid firefighter/engineers on duty at a time (smaller stations needed then).

FACILITY	ADDRESS	CONDITION	DIVISION
Station 1	410 East 5th Street	Good	Operations/ Fire/EMS Community Safety
Station 2	3070 West 29th St.	Excellent	Operations/Fire/EMS
Station 3	900 South Wilson Ave.	Undesirable	Operations/ Fire/EMS
Station 4	4900 Earhart Road	Good	Operations/ Fire/EMS Airport Operations
Station 5	251 Knobcone Drive	Undersized	Operations/ Fire/EMS
Station 6	4325 McWhinney Blvd	Excellent	Operations/ Fire/EMS
Station 8	Big Thompson Canyon	Good	Operations/ Fire/EMS
Station 9	Big Thompson Canyon	Good	Operations/ Fire/EMS
Training Center	100 Fire Engine Red A	Good	Training Division

Figure 4-3. *Facilities/ Condition*

Within these fire stations and facilities, the Fire Authority has a current inventory of eight Type-1 fire engines: five front-line, two reserve engines, one training engine/reserve engine; two aerial ladder trucks: one tower, one straight ladder; two heavy rescue squads: one front-line, one special call; three Type 3 engines (wildland); one Haz-Mat/Special Operations Squad; and approximately a dozen other support vehicles. The Big Thompson Canyon stations also have a Type 1 engine and various wildland firefighting (Type 3) and support apparatus.

By evaluating the area profile, the vulnerability of the area, population growth, staffing and deployment capabilities of the firefighters, and the facilities and apparatus, a good composite of LFRA's capabilities can be gleaned. Using these and other critical dimensions can give a more complete assessment of how LFRA compares to other like fire departments in the region.

COMPARISON ANALYSIS FOR LFRA AND OTHER REGIONAL DEPARTMENTS

The appraisal data used within the next comparison chart was reviewed and evaluated from six other similarly sized departments within the region (Front Range/ Northern Colorado). Five of these departments are in northern Colorado and one is in southern Wyoming. All of these comparison departments have similar emergency response profiles with reasonably common citizen demographics. All of these departments are members and partners of the Front Range Fire Consortium (FRFC). Three of these are city fire departments with no rural area responsibilities, one is a city fire department that contracts for fire protection services with a rural area on one side of their boundary line, one is a fire protection district, and two are fire authorities (this group includes LFRA). By comparison, the agency most like LFRA, by area profile, governance model, operational profile, and services provided, is Poudre Fire Authority, Fort Collins (PFA).

The list of comparison departments includes Boulder Fire Department, Cheyenne Fire Department, Greeley Fire Department, Longmont Fire Department, Loveland Fire Rescue Authority, Mountainview Fire Protection District, and Poudre Fire Authority (Fort Collins). Critical comparison dimensions in this part of the report include:

- Operating budget
- Number of uniformed personnel
- Population served
- Costs per capita for services
- Size of area in square miles
- Number of fire stations
- Number of firefighters per 1000 population

Research completed by the Fire Authority Review Committee in 2010-2011 (see *2012 LFRA Strategic Plan*) clearly showed that Loveland Fire and Rescue was underfunded and understaffed by nearly 30% in many critical service level dimensions when matched to its comparison departments in the region *(i.e., staffing levels, operating budget, costs per capita, and number of firefighters per 1000 population).* Yet the department had nearly the same numbers for population served and a much larger area of coverage than the averages of the comparison departments. These factors had a direct and negative impact on both citizen and firefighter safety and survival. The impacts made from the *2012 LFRA Strategic Plan* and the Model One Expansion Plan have had very positive effects on these comparison numbers and the organization's deficiencies. Today (2017), LFRA's numbers are still behind the regional comparison departments; however, those deficits have been reduced considerably (see Figure 4.4 *Fire Department Statistical Comparison Data).*

The *2018 LFRA Strategic Plan* outlines the needed expansion in areas of new fire stations, staffing levels, and deployment. As these strategic initiatives are accomplished, LFRA's ability to keep pace with community growth will continue. The comparison dimensions and numbers listed in Figure 4.4 for LFRA will also improve, resulting in enhanced citizen services and greater firefighter and citizen safety and survival.

Fire Department Statistical Data Comparison
Front Range Fire Departments/Organizations

City or Department	2016 Budget	Number of Uniformed Personnel	Population Served	Cost Per Capita	Size of Area by Square Miles	Number of Fully Staffed Fire Stations	Number of Firefighters per 1000 Population
Loveland Fire Rescue Authority	$13,458,493	79	97,377	$129.60	190	5	0.81
Boulder	$18,628,624	106	104,810	$175.80	25.8	8	1.46
Cheyenne	$10,177,213	91	65,932	$148.95	27.2	5	1.38
Greeley	$16,033,517	102	110,000	$121.31	64	6	0.93
Longmont	$11,597,799	84	93,987	$123.46	21.8	6	.89
Mountain View	$13,105,885	73	50,000	$262.12	164	8	1.46
Poudre Fire Authority	$32,595,946	172	192,405	$136.61	235	10	0.89
Mean/Average	$16,513,925	101	102,043	$156.84	103.9	7	1.05
Weighted Average	$14,564,954	92.4	94,379	$142.88	94.2	6	1.02

Present Comparisons 2016

	Operating Budget	# of Uniform Personnel	Population Served	Cost Per Capita	Size of Area	# of Fire Stations	# of FFs per 1000 pop.
Average of Other Departments	$16,513,925	101	102,043	$156.84	104 Sq. Miles	7	1.05
LFRA	$13,458,493	79	97,215	$129.60	190	5	0.81
Difference % + or -	(-18.5%)	(-22%)	(-5%)	(-17%)	Nearly 2 times size	(-17%)	(-23%)

Figure 4-4. *Fire Department Statistical Comparison Data*
Source: LFRA 2016 Annual Report

V. STAFFING AND DEPLOYMENT

A critical component in carrying out the objectives of the *Essential Services Expansion Plan* (ESEP) will be an appropriate and effective plan for staffing and deployment of personnel and resources. This section of the strategic plan focuses on staffing levels and a deployment model to meet those objectives. From a historical perspective, Loveland Fire Department/Loveland Fire Rescue Authority (LFRA) has utilized a variety of staffing and deployment models. The organization has had an atypical history when compared to other regional departments, relying solely on volunteers up until the 1920s when the first paid engineer was hired. In the modern era, Loveland expanded into a concept known as a "paid-combination" fire department with the volunteer officers carrying much of the responsibility for leading and managing the organization. In 1991, the first paid fire chief was hired. The department moved slowly, but steadily, toward a staffing and deployment model more like a full paid department, with a continuance of the volunteer program until 2012. For several years LFRA utilized a three-tiered workforce staffing model that relied on full-time paid staff, part-time paid staff, and reserve firefighters. This model lasted until 2015. Today, LFRA is a full-paid fire department that relies on trained/certified volunteer firefighters for emergency calls in the Big Thompson Canyon area.

The concentration of this section is on staffing levels, deployment, and the connection to the Operations Division (staffing for engine and truck companies). However, other areas within LFRA, such as the Community Safety Division, Administration, and Training will also be considered as part of the overall staffing model and are mentioned within this section and others.

BASIC STAFFING AND DEPLOYMENT PLANS NATIONALLY AND REGIONALLY

Established within the framework of the *Essential Services Expansion Plan* is the directive for a three-person, minimum staffing level design for each fire company. This staffing model is the most common and has become the *accepted* standard for minimum staffing levels for most fire departments in the Northern Colorado region. Although this model does not meet, specifically, the exact criteria for deployment as set forth in National Fire Protection Association standards (NFPA 1710 *Standard for the Organization and Deployment of Fire Suppression Operations…*), this arrangement certainly can meet the ***intent*** of the standard. Few regional fire departments in Northern Colorado currently are staffed with a four-person model. However, like LFRA, are finding ways to phase in plans to meet the intent of the current NFPA 1710 standard.

EMPIRICAL CRITERIA FOR LFRA'S STAFFING AND DEPLOYMENT PLAN

Historically, the staffing and deployment model in use by LFRA has proven to be well designed and effective in saving lives and property and for firefighter safety and survival. These two significant goals (saving lives and property) are the major parts of LFRA's overall mission. The mission is dependent on adequate staffing levels and firefighting capabilities. In determining the firefighting capabilities of LFRA, three sets of criteria have been used.

The first criterion used was to determine the current tactical abilities of LFRA firefighting forces. This includes water application and other necessary firefighting functions such as forcible entry, search and rescue, ventilation, laddering, salvage and overhaul (typically these are referred to as "truck" or "support" functions), and adequate fireground command and control/Incident Command (see Figure 5-1).

The second criterion used was to determine how much water it takes to control and extinguish a fire in a given-sized building or fire-separated area. Many formulas have been devised to accurately predict needed fire flow (a.k.a. water flow). The formula that LFRA believes best represents the actual situation encountered in structural firefighting is documented by the National Fire Academy. It is referred to as the *NFA Fire Flow Formula*. This formula has been derived from field-testing and from the experiences of many different firefighters:

$$\underset{(GPM)}{\text{Needed fire flow}} = \frac{\text{Length X Width}}{3} \times \%\text{ of involvement}$$

Using this formula for a 5000 square foot structure would derive a needed fire flow of approximately 400 gallons per minute (GPM) in a structure with 25% involvement. It would take 14-16 firefighters to attack and support a firefighting operation delivering this level of flow (see Figure 5-1).

The third criterion considered was the emphasis on firefighter and citizen "survival" during firefighting operations. Beyond the expected duties of water application and truck or support functions, consideration must also be given to firefighter and citizen survival and safety. "On-Deck" or emergency reserve crews are all a part of Fed-OSHA Laws and/or NFPA Standards addressing firefighter survival and safety. The criteria expressed in *NFPA 1710 Standard for the Organization and Deployment of Fire Suppression Operations…* stipulates a minimum response of 14-16 personnel for a 1st alarm structure fire. LFRA agrees with these personnel minimums and has integrated them into the performance measurements for initial fire attack operations.

LFRA has also set goals within the strategic planning process to meet the intent of the fire emergency response criteria within the Urban Response Area (URA) and the Rural Response Area (RRA). The *Five Minute Response Model* that is applied to the URA is based on the intent of NFPA 1710. The model for LFRA sets the following goals for emergency response (structure fires and life threatening medical or rescues) for the first incoming LFRA tactical units:

- Arrive at emergencies in the designated URA within 6 min. 30 sec. after being dispatched 90% of the time (90 seconds for turnout time and 5 minutes for drive time).
- Arrive at emergencies in the designated RRA within 16 min. 30 sec. after being dispatched 90% of the time (90 seconds for turnout time and 15 minutes for drive time).
- For structure fires, the balance of the response will arrive in the URA 10 minutes after being dispatched, and in the RRA 20 minutes after being dispatched 90% of the time

All full-time paid firefighting companies are to be staffed (minimally) with three firefighting personnel. With these staffing criteria, and the expansion outlined in Section VI of this document, LFRA *will* be able to meet the expectations of these emergency response standards.

One final benchmark for minimum staffing relates to a factor mentioned in Section IV (page 33); *firefighters per 1000 population.* This common dimension is used by NFPA in their assessments for minimum staffing and workload evaluations. It is difficult to calculate the correct or needed number of firefighters based only on a national standard or assessment. Significant variables exist related to the area of the country assessed and the size of the urban area being evaluated. However, LFRA compares itself primarily with other area departments of like size and profiles. In this comparison, the dimension of firefighters per 1000 population has validity. LFRA has targeted .9 firefighters per 1000 population as a goal for the *2018 LFRA Strategic Plan*. This is below average for comparison departments, but an improvement over the current situation.

SPECIFICS FOR LFRA'S STAFFING AND DEPLOYMENT PLAN

LFRA conducted field testing of its own and corroborated other studies that suggested the minimum number of firefighters needed to effectively engage in offensive, interior firefighting operations was 16 firefighters (this design model is nearly identical to the findings that were set forth and published in the standard for NFPA 1710). The specifics of the design model for LFRA's deployment are listed below (these coincide with resources LFRA sends on a 1st Alarm Assignment - see Glossary in Appendix):

- Incident commander (battalion chief/IC) 1
- 1st arriving engine/fire attack crew 3
- 2nd arriving engine/water supply, 2nd attack line 3
- 3rd arriving engine/"on-deck", emergency rescue 3
- 1st arriving truck crew/support and flow path 3
- 2nd arriving truck crew/search and inside support 3

Total Staff Needed= 16

Figure 5-1 below illustrates the deployment assignments for each fire company or team.

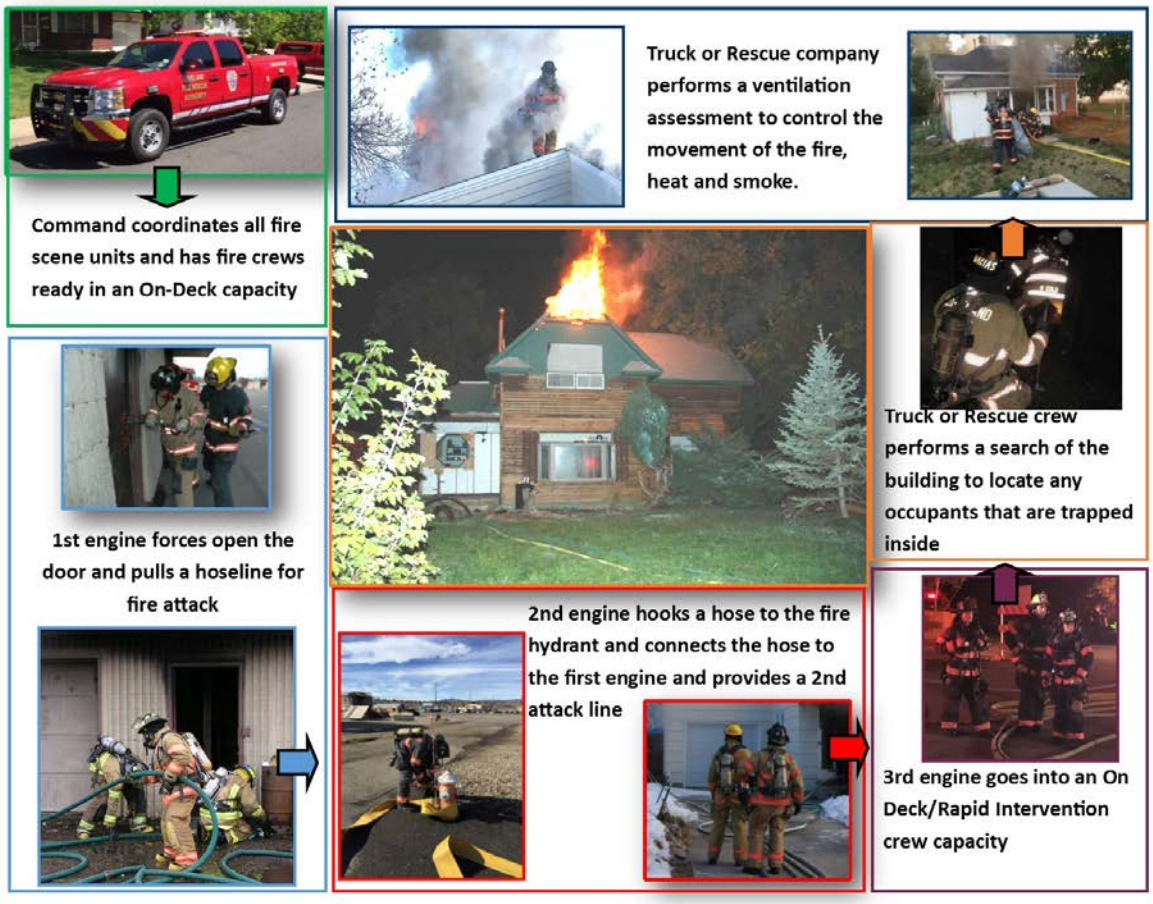


Figure 5-1. *Deployment Design Model*

The design model for deployment that is depicted above is appropriate for minimum staffing levels for what would be considered a standard fire attack on an average-sized residential or small commercial structure. Large residential or large commercial buildings would normally require more staffing, resources, and more fire companies. Other factors such as access problems, delayed notification or response, exceptionally high winds, lack of adequate water supplies, etc. would also require additional staffing and resources to address these challenges. Other resource needs that are not addressed within this model are the support personnel including EMS paramedics, law enforcement, utility personnel, fire investigators, and citizen advocates. This basic modeling design is appropriate for planning assumptions for minimum staffing and deployment options for fire departments; LFRA has adopted this staffing and deployment model as part of the targeted outcomes for the application of the ESEP with the intent of meeting the organizational benchmarks and service level indicators listed in Section IX of this strategic plan.

TECHNOLOGY AND IMPACTS ON LFRA STAFFING AND DEPLOYMENT PLAN

In the last ten years there has been a significant amount of research and scientific discovery related to fire behavior and its relationship to conventional strategic and tactical fire scene operations. Issues concerning initial fire attack, smoke and flow path for the dangerous products of combustion, and flashover have all contributed to a "rethinking" of how most fire departments operate on the fireground. New firefighting techniques and the use of new firefighting tools such as the "fog nail" nozzles have been in operation in the European theater for several years. Some of the more progressive U.S. fire departments are starting to operate with these new tools and tactical operations as part of their arsenal for initial fire attack. LFRA is a leader in this effort and has incorporated many of these new tools, equipment, and strategies in the operational procedures. However, these new technological and scientific advances are not intended to impact staffing on a numerical basis; in other words, the intent is not to reduce staffing through technology. Rather, the intent is to provide firefighters with a more effective and safer way to operate on the fireground. The new tactical operations are also not a panacea for every fireground situation. Rather, the new technologies and associated tactics should be viewed as simply another "tool in the toolbox." Conventional, interior firefighting operations have been proven to work effectively in many fireground situations. Thus staffing levels and deployment practices remain based on the earlier model discussed in this section. Future scientific research and field experiments may change the nature of how fires are fought in America. However, for the foreseeable future the basic standard deployment model and staffing utilized by LFRA remains the most appropriate model for the targeted service levels for the Loveland community. LFRA will continue to monitor the research and scientific testing for these new tactical operations and make the appropriate changes and adjustments into field operations.

LFRA's leadership is evaluating one other significant fire service staffing and deployment change: the use of Quick Response Vehicles (QRVs). Several departments across the country and a few in northern Colorado are utilizing the QRV concept. The QRV is a smaller fire response vehicle that can be equipped to handle most single engine response calls, medical emergencies, small grass and trash fires, and other service related calls. The intent is to reduce the number of calls that a full-sized fire vehicle responds to and ensure those engines, trucks and squads are available for a structure fire or more complex rescue call. The need for these smaller response vehicles has been driven, in part, because of the extensive call loads many fire companies are responding to. Most are medical emergencies and other service calls.

At the time of this writing, LFRA leadership has done research on the potential uses and feasibility of these QRVs for LFRA's system. QRVs are being incorporated into the *2018 LFRA Strategic Plan* on a provisional basis to possibly address the following:

- Workload and increased flights at the Northern Colorado Regional Airport.
- Workloads for fire investigations and code enforcement within the CSD.
- Burgeoning call loads within the areas of LFRA's busiest fire companies.
- Applications of new technologies and firefighting tactics (ex. fog nail nozzles).

The first QRV is targeted for deployment in Phase Three of the *2018 LFRA Strategic Plan*.

OTHER STAFFING NEEDS AND CONCERNS

There are other staffing positions within LFRA that should be mentioned in this section of the plan. Positions within the Community Safety Division, Administration, and the Training Battalion are all critical to the mission of the organization, and they are included as part of the expansion in the *2018 LFRA Strategic Plan*. The appropriate number of personnel in each of these divisions or areas will be a matter of ongoing analysis. Most are addressed, considering both needs and growth, in the *Essential Services Expansion Plan*; the full expansion for staffing can be found in Section X Recommendations/ Implementation. As in other areas within this plan, the forecasted need and numbers associated with staffing are based on normal, planned expansion or growth. Increases in population or expansion of businesses or industrial complexes within the Fire Authority's area that are beyond these norms may overtax the system, and in the future more resources and personnel could be required.

FUTURE WORKFORCE STAFFING ANALYSIS

In Stage Two (2027-2035) of this document, a comprehensive "workforce-staffing analysis" is called for. A number of critical areas are mentioned as part of this analysis including:

- The 24-hour shift staffing model and comparisons for the best, most effective model.
- The need for expansion from a 3-person minimum staffing model to a 4-person model.
- The use of QRVs and how effective they are in the LFRA system.
- Workforce-staffing needs in the Big Thompson Canyon area.

These and other areas should be evaluated as needed. The listed timeframes within Stage Two are intended to be guidelines only. Other organizational needs may dictate that some of these issues be elevated to a higher priority and an earlier timeline. Of the entire workforce staffing issues addressed in this section, the 24-hour shift model may be the most pressing to evaluate. LFRA currently uses a "Berkeley" system of the 24-hour work cycle. Many fire departments in Colorado and the western part of the country have opted to change to a 48-96 work cycle (forty-eight hours on duty and ninety-six hours off). Any proposed changes to the current shift work schedule should be accompanied by comprehensive research before changes are implemented.

AUTOMATIC AID AND MUTUAL AID

Nearly all fire departments depend on automatic aid and mutual aid responses to enhance their own staffing and deployment levels; LFRA is no exception**.** Automatic aid is emergency assistance dispatched automatically by contractual agreement between two communities or fire districts; mutual aid is an agreement to lend assistance on emergencies upon an agency's request.

LFRA has legal, contractual agreements with all of the surrounding fire agencies for auto and mutual aid. These agreements are very important to LFRA's overall emergency response plan for staffing and deployment. In some cases, the first arriving engine to a response in LFRA's area may be from a different fire department; LFRA has these same situations in reverse.

The key to building strong auto and mutual aid agreements is in relationships and training. LFRA is strongly committed to our regional and area partners for automatic and mutual aid. These agreements enhance LFRA's emergency response system and provide resiliency and depth for the protection of our citizens in the event of multiple structure fires or heavy rescue calls within the response area. It also provides for a safeguard for staff recalls for off-duty personnel to return to the workforce for staffing for multiple alarm emergencies, or for emergency calls that require more than the available on-duty resources.

LFRA monitors and tracks the total number and hours worked of mutual aid and automatic aid calls, both for the aid requested by LFRA to other agencies and the number of times and hours served for other agencies needing LFRA's assistance. This data is compiled and included in the LFRA Annual Report. LFRA will need automatic aid and mutual aid as part of the organization's staffing and deployment model for the entirety of the years covered by this strategic plan. Ongoing monitoring by LFRA's leadership and plans for maintaining and improving the auto aid and mutual aid response should be an ongoing priority for LFRA.

PLANNING ASSUMPTIONS

Staffing and Deployment Planning Assumption 1 - LFRA fire companies (engine, truck, and squad companies) will be staffed at three personnel minimum with a target for deployment for structure fires at 16 firefighting personnel, meeting the intent of NFPA 1710.

Staffing and Deployment Planning Assumption 2 - The full-time paid staffing model will be utilized for fire stations in the Urban Response Area. The volunteer firefighter model for staffing and deployment will be used for LFRA stations in the Big Thompson Canyon.

Staffing and Deployment Planning Assumption 3 - The use of technology and other scientific discoveries for fire suppression will continue to be evaluated by LFRA leadership and personnel. Changes to operational procedures and overall tactical operations will be examined and incorporated into LFRA's procedures where appropriate.

Staffing and Deployment Planning Assumption 4 - Alternate staffing and deployment methods, such as the use of QRVs, will be a part of LFRA's future operational practices.

Staffing and Deployment Planning Assumption 5 - Periodic, ongoing evaluations for the efficiency and effectiveness of the LFRA staffing model are needed. In addition, there is a need for a future, more comprehensive, workforce-staffing analysis to determine the best and most effective future staffing model for LFRA.

Staffing and Deployment Planning Assumption 6 - All future staffing levels within every division of LFRA are based on normal forecasted expansion of population and businesses or industrial complexes within the Fire Authority's response area.

Staffing and Deployment Planning Assumption 7- Automatic aid (auto-aid) and mutual aid will continue to be a vital part of LFRA's initial emergency response planning and long-term solutions for additional staffing for the emergency scene. Training with and building and keeping strong relationships with surrounding and regional fire departments will be a priority.

VI. ESSENTIAL SERVICES EXPANSION PLAN (ESEP)

Loveland Fire Rescue Authority (LFRA) is committed to excellence in both financial planning and management. The results of the *2012 LFRA Strategic Plan* and the subsequent LFRA Annual Reports have provided evidence of this commitment to excellence and a long-term strategy of sound financial stewardship and financial reporting. A significant document or "tool" from the 2012 Plan was the inclusion of the "Model 1 Basic Services Expansion Plan." This tool provided LFRA and its leadership with a document that clearly explained the plan for expansion, provided a prioritization schedule, included phases and a time schedule for the expansion initiatives, and provided cost estimates for these initiatives. In the 2018 plan, this new tool is called the *Essential Services Expansion Plan (ESEP).*

The ESEP is similar to Model 1, yet there are differences. The new ESEP version will:

- Include the years 2018-2026.
- Have three phases, all having three years per phase.
- Include new large capital initiatives as well as operation and maintenance costs.
- Include large capital replacement and remodeling initiatives.
- Include staffing increases to meet the overall minimum staffing goals.
- Identify a funding source for each of the initiatives listed in the plan.

It is expected that the ESEP will be utilized and frequently reviewed (similar to Model 1) and will assist LFRA's leadership and elected officials in the improvement and expansion strategy for the *2018 LFRA Strategic Plan*. The ESEP will be used as both a planning tool and a benchmark for how the organization is progressing and meeting its stated financial goals and expansion plans. The ESEP contains several important large capital and operational expansion initiatives that will follow a phased-in strategy.

PHASES FOR THE ESSENTIAL SERVICES EXPANSION PLAN (2018-2026)

The ESEP consists of three phases. The first two phases (both "high priority") include two major construction projects (two new fire stations), significant hiring initiatives (for both stations and other), a major upgrade to the training center, and the replacement of several key pieces of fire apparatus. The third phase is mostly dedicated to the remodel of two existing fire stations and replacement of two pieces of fire apparatus. The charts on the following pages express the details and logistics for this expansion. The *new* major capital and O&M items for the ESEP would consist of the following:

PHASE ONE (2018-2020)

- Build Training Center Burn Building
- Build and staff Fire Station Seven

PHASE TWO (2021-2023)

- Build and staff Fire Station Ten
- Add 3 firefighter positions for Heavy Rescue 2

PHASE THREE (2004-2026)

- Remodel Station Five
- Remodel Station Three
- Add 3 shift BC positions for East Battalion and Add a QRV (6 positions)

MODELS AND CHARTS FOR THE ESEP (2018-2026)

The remaining pages in this section provide individual details for the ESEP, including staffing of and costs for implementation, large capital options for station construction, primary fire apparatus purchase and replacement, and fire station remodel expansion.

These models and charts are included to summarize, as much as possible, the large capital purchasing plans, and the operation and maintenance plans expressed within the ESEP. It should be noted that while the ESEP makes up the majority (or the core) of the essential expansion plans for LFRA within the *2018 LFRA Strategic Plan*, other needs and plans for expansion do exist. The complete listing and explanations are recorded in "Section X Recommendations/ Implementation." The headings/areas for these expansion needs/initiatives are:

High Priority - Elements in Phase 1 or Phase 2 of the plan (2018-2023) that relate to the addition of needed personnel or high priority capital items.

Intermediate Priority - Elements in Phase 3 of the plan (2024-2026) that relate to the addition of needed personnel or intermediate priority capital items.

Future Priority/ Needs - These are additional capital and personnel priorities that have no timeline set, other than being addressed or met within 2018-2026, the years of the *2018 LFRA Strategic Plan*.

In many of the models and charts that are included in this section, the high and intermediate "priority scale" utilized will be color coded for clarity.

Once again, the models or charts in this section are provided for an easier illustration or graphic of the overall expansion initiatives within the ESEP. Many of the areas are listed separately within these models for clarity and simplicity. The following specific models or charts for the ESEP are included in the subsequent pages of this section:

- Essential Services Expansion Plan - major items in one chart, costs per phase totaled
- Abbreviated Phased-In Plan - major capital and O&M items
- The Strategic Plan by Phases - major capital and O&M with phases, years, and costs
- ESEP Major Staffing and Timelines - listing for major hiring initiatives/timelines
- Apparatus/Large Capital Replacement - detailed listing of large capital/apparatus purchases and the timelines associated with them
- Fire Station Construction/Station Remodels for ESEP - details for large capital projects for new station construction and remodeling of existing LFRA stations

Essential Services Expansion Plan-*Revised*

Plan on a Page

PHASE 1: 2018 – 2020 (High Priority)	YEAR	COST	SOURCE
Training Center- Burn Building	2018	2,641,228	City TABOR/Fire Capital Exp. Fees
Build New Station 7 & Apparatus	2018	4,649,914	LFRA Financing
Replace Fire Engine E-3/ #0156	2020	598,005	LFRA Fleet Replace Fund
Total Capital $ Increase Phase 1		**$7,889,147**	(moved QRV capital)
Inspector for Community Safety Division (CSD)	2018	74,500	City/Rural Annual Contributions
Station 7 (staffing, facilities, and vehicle maintenance and annual replacement savings)	2019	1,418,520	City/Rural Annual Contributions
Total Operational $ for Phase 1		**$1,493,020**	(moved QRV O&M)

PHASE 2: 2021 – 2023 *(High Priority)*	YEAR	COST	SOURCE
Station 10 Design	2021	409,236	LFRA Financing
Replace Fire Engine E-7/#0109	2021	599,881	LFRA Fleet Replace Fund
Station 10 Construction	2022	4,895,830	LFRA Financing
Replace Fire Engine E-2/#0110	2023	603,567	LFRA Fleet Replace Fund
Replace Rescue 6/#0352	2023	723,071	LFRA Fleet Replace Fund
Total Capital $ Increase Phase 2		**$7,231,585**	
Add 3 FF positions for Heavy Rescue 2	2021	230,000	City/Rural Annual Contribution
Station 10 (staffing, facilities, and vehicle maintenance and annual replacement savings)	2023	1,398,725	City/Rural Annual Contributions
Total Operational $ for Phase 2		**$1,628,725**	(Sub BC's Add FF's)

PHASE 3: 2024-2026 *(Intermediate Priority)*	YEAR	COST	SOURCE
Remodel Station 5	2024	1,976,850	City Bond-Sales Tax
Replace Ladder 6/#0202	2024	1,406,282	LFRA Fleet Replace Fund
Add Quick Response Vehicle (QRV) Company	**2025**	**381,598**	LFRA Fleet Fund
Remodel/Replace Station 3	2025	3,612,413	City Bond-Sales Tax
Replace Fire Engine 5/#0111	2025	736,854	LFRA Fleet Replace Fund
Total Capital $ Increase Phase 3		**$8,113,997**	(add QRV Capital)
Add 3 Shift Battalion Positions (East Battalion)	**2024**	**518,400**	City/Rural Annual Contributions
QRV Company Staffing	**2025**	**828,423**	City/Rural Annual Contributions
Total Operational $ for Phase 3		**$1,346,823**	(add BC & QRV staff)

Abbreviated Phased-In Plan

Major Capital and O&M

PHASE	TIME	CONSTRUCTION	HIRING FOCUS	APPARATUS
One	**2018-2020**	**- Build New Station 7** **- Upgrade Training Center (New Burn Building)**	**- Staffing for Station 7**	**- Apparatus for Station 7 (Type 1 & Type 3 Eng.)** **- Replace Engine: (E-3- #0156)**
Two	**2021-2023**	**- Build New Station 10**	**- Staffing for Station 10** **- Three positions (F/F) For Heavy Rescue 2**	**- Replace Two Engines: (E-7- #0109) (E-2- #0110)** **- Replace Rescue 6 (R-6- #0352)**
Three	**2024-2026**	**- Remodel Station 5** **- Remodel Station 3**	**- Three BC positions For East Battalion** **- Staffing for QRV Company**	**- Replace Engine: E-5 (E-5- #0111)** **- Replace Ladder 6 (L-6- #0202)**

2018 Strategic Plan Expansion: Phased-In Large Capital/O&M 2018-2026		
Phase 1: 2018-2020		
• 2018	*Build New Station 7*	$4,649,914
	Upgrade Training Center	$2,641,228
• 2019	*Staffing for Station 7*	$1,418,520
• *2020*	*Replace Engine*	$ 598,005
	Reserve (E-3- #0156)	
	Phase 2: 2021-2023	
• 2021	*Design Station 10 and*	$ 409,236
	Land Purchase	
	Add 3 FF positions for Rescue 2	230,000
	Replace Engine	$ 599,881
	Reserve (E-7- #0109)	
• 2022	*Build Station 10*	$4,895,830
• 2023	*Staffing for Station 10*	$1,398,725
	Replace Engine	$ 603,567
	Reserve (E-2- #0110)	
	Replace Rescue 6- #0352	$ 723,071
	Phase 3: 2024-2026	
• 2024	*Remodel Station 5*	$1,976,850
	Add 3Shift BC Positions (East Bat.)	518,400
	Replace Ladder 6- #0202	$1,406,282
• 2025	*Add-in QRV Company & Vehicle*	$1,210,021
	Remodel/ Replace Station3	$3,612,413
	Replace Engine	$ 736,854
	Reserve (E-5- #0111)	

ESEP MAJOR STAFFING ADDITIONS AND TIMELINES

The ESEP confirms the use of the full-time paid staffing model for fire stations located within the Urban Response Area (URA). Volunteer firefighters staff stations in the Big Thompson Canyon area. The total build out of this plan would result in achieving the goal of having .9 firefighters per1000 population for full-time, paid, uniformed staff for LFRA.

ADDITIONS TO BUILD THE PLAN:	PRIORITY	YEAR
* Add 9 full time uniformed positions for new Station 7 /Engine 7: Includes 3 lieutenants, 3 engineers, and 3 firefighter positions to meet minimum staffing	High Priority	2019
* Add 3 full time uniformed positions for system coverage/rovers: Includes 3 firefighter/engineer positions.	High Priority	2019
* Add 3 full time firefighter positions for Heavy Rescue 2 (brings staffing for Heavy Rescue 2 to three personnel, full-time)	High Priority	2021
* Add 9 full time uniformed positions for new Station 10/Engine 10: Includes 3 lieutenants, 3 engineers and 3 firefighter positions to meet minimum staffing	High Priority	2023
* Add 3 full time uniformed positions for new East Battalion: Includes 3 battalion chief positions for shift coverage and management (one battalion chief for each of the three shifts)	Intermediate Priority	2024
* Add 6 full time uniformed positions for the establishment of the new Quick Response Vehicle (QRV): Includes 3 lieutenants and 3 firefighter positions	Intermediate Priority	2025

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ESEP NEW APPARATUS/LARGE CAPITAL REPLACEMENT

■ **Front-Line Apparatus Purchase/ Replacement Schedule** - ***Status of Fleet***

Vehicle Name	Primary Vehicle	Vehicle Number	Year of Vehicle	Goes to Reserve @ 12*	Remove/ Retire (5**)
E-1	**SVI/ Spartan**	**#0112**	**2010**	**2022**	**2027**
E-2	**Crimson/ Spartan**	**#0110**	**2005**	**2017**	**2023**
Rescue 2	**Spartan/ Gladiator**	**#0850**	**2013**	**2023**	**2033**
E-3	**SVI/ Spartan**	**#0300**	**2016**	**2028**	**2033**
E-5	**Pierce Quantum**	**#0111**	**2008**	**2020**	**2026**
E-6	**SVI/ Spartan**	**#0313**	**2012**	**2024**	**2029**
Tower 6	**Pierce Aerial Tower**	**#0700**	**2014**	**2024**	**2034**
Rescue 6	**SVI/ Spartan**	**#0352**	**2003**	**_____**	**2023**
E-8	**Crimson/ International**	**#0160**	**2009**	**2027**	**2034**
Front-Line Reserve Apparatus					
Reserve	**Smeal/ Spartan**	**#0156**	**2003**	**2015**	**2020**
Reserve	**SVI/ Spartan Gladiator**	**#0109**	**2004**	**2016**	**2021**
Ladder 6	**Smeal/ HME 1871**	**#0202**	**2001**	**_____**	**2024**

■ **Replacement Plan and Costs for New Primary Apparatus 2018-2026**

1.	2020	Reserve	#0156	Smeal/Spartan	$ 598,005
2.	2021	Reserve	#0109	SVI/ Spartan Gladiator	$ 599,881
	2023	Engine 2	#0110	Crimson/ Spartan	$ 603,567
3.	2026	Engine 5	#0111	Pierce Quantum	$ 736,854
4.	2023	Rescue 6	#0352	SVI/Spartan	$ 723,071
5.	2024	Ladder 6	#0202	Smeal/ HME 1871	$1,406,282

TOTAL COSTS – FRONT-LINE APPARATUS REPLACEMENT **$4,666,857**

*12 = Target for years of front-line primary service before going into Reserve Status
**5 = Anticipated years of service as a Reserve before replacement

ESEP FIRE STATION CONSTRUCTION/ REMODEL STATIONS

New Construction
The following are cost estimates for building two new fire stations associated with the growth planned for LFRA and the *Essential Services Expansion Plan*.

CONSTRUCTION OF NEW FIRE STATION SEVEN - 2018

• Design	$ 347,950
• Construction	$3,191,550
• Equipment	$1,090,000
• Arts (1% added construction costs)	$ 20,414
TOTAL CAPITAL COSTS for STATION SEVEN	**$4,649,914**

CONSTRUCTION OF NEW FIRE STATION TEN - 2022

• Design	$ 409,236
• Construction	$3,816,710
• Equipment	$1,079,120
• Arts (1% added construction costs)	$ ---------
TOTAL CAPITAL COSTS for STATION TEN	**$5,305,066**

Remodel/ Expansion Construction
The following are cost estimates for the remodeling and expansion of two existing fire stations associated with the growth planned for LFRA and the *Essential Services Expansion Plan*.

REMODEL/ EXPANSION OF FIRE STATION FIVE - 2024

- Includes: Design, Construction, Arts

TOTAL CAPITAL COSTS for STATION FIVE **$1,976,850**

REMODEL/ EXPANSION OF FIRE STATION THREE - 2025

- Includes: Design, Construction, Arts

TOTAL CAPITAL COSTS for STATION THREE **$3,612,413**

VII. SPECIALIZED AREAS

The scope of fire/rescue emergency services has expanded greatly over the last three decades. Firefighters today are expected to provide expanded and enhanced services in capacities that include emergency medical response, wildland firefighting, and specialized rescue functions. Section VII covers several important specialized functions that have now become integral to the fire department's daily operations and long-term strategy and planning for a fire and rescue-safe community. It also addresses the dimension of human resources and many other supplementary functions that are necessary to carry out the mission of Loveland Fire Rescue Authority (LFRA). One segment included in this section is titled “Other Important Areas,” and it addresses several support functions that are essential to LFRA’s overall fire-rescue mission. The order in which these seven specialized services are addressed is not intended to imply any qualitative rating or level of importance. All of these specialized and miscellaneous services are important and necessary to the overall mission of LFRA.

This section focuses on the following areas of operations that relate directly to fire protection and emergency services:

- Emergency Medical Services/TVEMS
- Wildland Urban Interface Operations
- Specialized Operations Team (SOT)
- Training
- Safety/Survival
- Human Resources and Support
- Other Important Areas

For each specialty area or function, this seventh section will identify what it is, explain how it operates or is integrated into the department's mission, provide some insight into future needs or concerns, and present some planning assumptions.

EMERGENCY MEDICAL SERVICES – LFRA AND TVEMS

The Emergency Medical Services (EMS) delivery model is typically represented by two different levels of service: Basic Life Support (BLS) and Advanced Life Support (ALS). BLS focuses mostly on delivering the primary services of airway, breathing, and circulation to support life. ALS focuses on the more complex, advanced life support services that include more definitive airway management and intubation and the administration of life-saving intravenous drugs for pre-hospital care and treatment. Transportation of patients is most often the responsibility of the ALS provider. Two other integral components to a successful EMS system include dispatching for EMS and public medical awareness and training. The emergency medical system in the Loveland Fire Rescue Authority response area is very much like the typical model listed above. The uniqueness of the Loveland model has much to do with Thompson Valley EMS (TVEMS) operating as a special district. This governance model allows TVEMS to prioritize patient care and customer service and to leverage their assets to have the appropriate amount of resources (ambulances and staffing) available to serve the citizens and their needs. Of course, both agencies, TVEMS and LFRA, are distinctive because of the people that work there and who are dedicated to providing quality pre-hospital care and excellent customer service.

EMS and LFRA

LFRA supports the EMS model by providing basic life support services and working collaboratively with the paramedics and medical technicians of TVEMS during on scene assessment, treatment, and when needed during transportation to a local hospital or health care facility. LFRA's personnel are trained to the level of Emergency Medical Technicians (EMTs) and in the use of Automatic External Defibrillators (AEDs). The current number of EMS-related calls for LFRA is at 50% of the entire call load (in 2016 that was nearly 8000 emergency calls). LFRA normally responds only to EMS calls for life-threatening emergencies, or in field-related terminology, to Charlie, Delta, and Echo medicals. Occasionally, LFRA will respond to non-life-threatening calls such as an unknown coded "Bravo" or when TVEMS responders feel the need for a fire response.

LFRA firefighters are required to hold the EMT-Basic certification issued by the Colorado Department of Public Health and Environment (CDPHE); LFRA is a recognized continuing education training provider for CDPHE. Certified LFRA EMS trainers provide ongoing training in EMS for required continuing education. Joint or combined EMS training is often provided in collaboration with TVEMS instructors to ensure that all phases of the local EMS model are working in concert with each other, and everyone is training to the same protocols.

LFRA strategically envisions remaining a BLS provider in the future and providing a support mechanism for the ALS and transport services being offered through TVEMS. The current operational model and business philosophy of TVEMS and its leadership is conducive to providing a quality, high level of citizen service for EMS. Periodic performance reviews of the service levels should occur and be a part of this strategic planning process. Regular, ongoing meetings with TVEMS executive staff and mid-level supervisors should also be conducted to ensure that both agencies continue to operate with a high level of performance and within the parameters of their individual portion of the shared EMS service level mission.

EMS and Thompson Valley Emergency Medical Services

Formed in 1983, the Thompson Valley Ambulance Service became Thompson Valley Emergency Medical Services (TVEMS) in 1998 under a new Health Services District agreement. Today TVEMS responds to nearly 10,000 calls per year with its fleet of 10 ambulances, 5 stations, and 55 employees. TVEMS incorporates the most advanced treatment protocols with the latest technology, modern ambulances, computer aided dispatching, medical pre-arrival instructions, and GPS mapping to provide quality services to its citizens and clients. TVEMS provides advanced life support and ambulance transport services to the 450 square miles of the Thompson Valley Health Services District. This includes the cities of Loveland and Berthoud and the Loveland Rural Fire Protection District; with portions of Johnstown and Windsor-Severance Fire Protection District also included in the service area, a population of over 100,000 is served.

The mission of TVEMS is to "promote and facilitate the responsible provision of medical services within the Thompson Valley Health Services District." The organization's Vision Statement states, "The vision of Thompson Valley EMS is to provide humane, quality care to the citizens of the Thompson Valley Health Services District. We will commit ourselves to make each patient feel, no matter the intensity of the event, they are worth our time, education, and compassion. This commitment to treat our community members with dignity and respect will extend to our co-workers. Our compassion to help each other within the organization is a direct reflection of how well we will care for those we are called to in their time of need.

We will strive to always be on the leading edge of medicine and education while working to contain costs and maintain continuity within Thompson Valley EMS."

Successfully managing and operating an emergency medical system with two different agencies requires cooperation and collaboration in field operations; it also requires a compatible organizational and business philosophy. The model used by LFRA and TVEMS meets and exceeds these necessary essentials. The focus of both organizations is on providing the highest quality patient care and citizen service possible with an emphasis on collaboration in planning, training, and overall field operations.

Emergency Medical Dispatching (EMD)

The Loveland Emergency Communications Center (LECC) is the Public Safety Answering Point (PSAP) for 9-1-1, covering over 260 square miles of southern Larimer County. LECC communications specialists answer both emergency and non-emergency calls. The Center is dispatching for Loveland Police Department, Loveland Fire Rescue Authority (including Loveland Rural Fire Protection District and Big Thompson Canyon Fire), Thompson Valley EMS, and the Berthoud Fire Protection District.

In 2007 the Loveland Emergency Communications Center became one of 82 dispatch centers in the world to become accredited in Emergency Medical Dispatching (EMD). LECC has been evaluated and re-accredited multiple times since the initial accreditation process in 2007, including during the recent reaccreditation in 2016. Communications specialists use specialized medical software to triage patients over the phone and send the appropriate medical personnel. An average of 110 calls are listened to and evaluated each month to ensure that our EMDs maintain high standards.

EMD consists of three parts. The first involves triaging the incoming request for medical service to determine the level of response such as no response, non-emergency transport, or emergency transport. This feature depends heavily on the area's emergency medical facilities and the availability of alternate, non-emergency transport methods and treatment facilities. Many jurisdictions do not utilize EMD, but it is an important and proven component in reducing abuse or overcrowding of the local emergency medical system, reducing incidents (which helps conserve available resources for the fire department, ambulance provider, emergency rooms, etc.), and helping to reduce accidents.

The second part of EMD consists of providing pre-arrival instructions to the callers, so they can immediately help the victim. The level of telephone assistance can vary from just simple advice (call your doctor) to complete instructions for CPR. This is the most visible component of EMD, and for victims, perhaps the most valuable feature: saving lives. Pre-arrival instructions are most commonly provided on computer screens, arranged so the dispatcher can question the caller and based on the answers, quickly go to the screen that contains the correct advice or instructions.

The third and most critical feature of EMD is quality assurance. Each EMD program must originate with the complete involvement and cooperation of local emergency medical officials. Each aspect of the selected EMD protocol must be reviewed, revised as needed, and approved by the local or regional EMS agency. This ensures that the information and procedures being given by the dispatchers are correct and appropriate for local conditions. In addition, there must be an on-going review of the use of the EMD protocols by the dispatchers to ensure they're following them correctly and that the protocols are having a positive impact on the victims. This review

could involve the random selection of several incidents each month for providing analysis, grading, providing feedback to the dispatcher, and revising the protocols if necessary.

The EMD component of the EMS system operated by LECC is an integral part of the overall quality, citizen service model for pre-hospital care offered in the LFRA and TVEMS districts. This third component of the system ensures a proper response from the emergency pre-hospital care providers and begins the assessment, triage, and treatment phase of the EMS with citizen assistance. The fourth component of the system is public medical awareness and training.

Public Medical Awareness and Training

The general public's knowledge of the symptoms of serious illness and of the proper method to access the EMS system has been shown in community studies to have a positive effect on the overall survival rate of patients in medical emergencies. Citizens trained in CPR are another important factor in patient survival. Approximately 95% of sudden cardiac arrest victims die before reaching a hospital facility (*American Heart Association-"CPR Facts and Statistics"*). However, statistical data has suggested that if more citizens knew CPR, more lives could be saved. According to the American Heart Association, immediate CPR can double or even triple a cardiac arrest victim's chance of survival.

Quality EMS education is the first step to improving the standard of care. TVEMS offers a wide range of courses, both certification and refresher courses, for pre-hospital emergency health care providers (EMT-basic through paramedic), firefighters, law enforcement personnel, health care providers, and the general public. Citizen training in CPR is an important component of the programs offered by TVEMS; the continuance of this training will positively impact the region's standard of care.

Enhancing the public's knowledge about the proper way to access the EMS system is important to pre-hospital emergency care. A well-informed public can assist the emergency dispatch center in striving to initiate proper and timely notification of medical emergencies.

Loveland - A Heart Safe Community

The McKee Medical Center Foundation has partnered with McKee Medical Center, the Cardiovascular Institute of North Colorado, Thompson Valley EMS, the Loveland Police Department, Loveland Fire Rescue Authority, Thompson R2-J School District, and Loveland Emergency Communications Center to become a designated "Heart Safe Community." The "Heart Safe Community" designation, sponsored by the American Heart Association, is a communitywide effort to educate citizens on the dangers of sudden cardiac arrest (SCA). Identifying symptoms, learning how to administer cardiopulmonary resuscitation (CPR), and using automated external defibrillators (AEDs) are major components of the "Heart Safe City" designation. The Banner Health website has more information for this community initiative: *https://www.bannerhealth.com/ways-to-give/foundations/mckee/funds/heart-safe*

Currently, Loveland is the only city within Colorado to extend the instruction of CPR as part of the Thompson School District's curriculum for sophomores; this is mandatory training for all tenth graders in the school district. This important training is another indication of the commitment of these aforementioned partners to making and keeping Loveland a Heart Safe Community for all its citizens.

Response Times and EMS

Response time performance has been used as an indicator of ambulance service quality for many years. Historically, the standards were applied to all calls regardless of clinical urgency. However, the rationale for using response time as a performance standard is based on researched evidence in the relationship between time and patient outcome for very specific clinical conditions: predominately out-of-hospital cardiac arrest. Many of these research studies were conducted before the advent of the BLS use of AEDs, when defibrillation was an ALS procedure. National standards have also impacted the thinking of time and patient outcome.

Contemporary studies in the U.S. found overall, rapid response in terms of an eight-minute target for ALS makes no discernible difference to survival of patients in cardiac arrest. Nevertheless, there are presumed benefits for the survival of many out-of-hospital cardiac arrest patients. Reducing levels of anxiety, pain, and distress in patients and family members is another benefit of rapid response. Thus for a given level of resources and specific call types, response times should be minimized.

LFRA has adopted the intent of the National Fire Protection Association's (NFPA) directives for EMS response as a target for performance measurements. The goal is to have a BLS unit (engine or other tactical unit) arrive within 6 minutes and 30 seconds after being dispatched 90% of the time within the Urban Response Area (see Section V- Staffing and Deployment for more information). LFRA applies these response targets for life-threatening emergency medical calls (Charlie, Delta, Echo medicals).

TVEMS also uses response time targets and dispatch call prioritization according to the urgency and seriousness of the patient's condition. The assumption is that a faster response to life-threatening emergencies could lead to an increase in the number of lives saved. Armed with accurate information, "prioritized" response times have gained acceptance within the local jurisdiction and are defined as follows (ALS unit arrival criteria):

- Category 1 - Life-threatening emergencies of which 90% should be responded to within 9 minutes
- Category 2 - Serious conditions, which should be responded to within 15 minutes
- Category 3 - An unspecified but appropriate response for calls with no immediate clinical need.

From the LFRA perspective, any life-threatening emergency (Charlie, Delta, or Echo medical call) is essentially handled as a "Category 1" with the abovementioned response criteria in place. The targeted performance standards of the EMS system within the LFRA response district for life-threatening medical emergencies state that a BLS unit will arrive within 6 minutes and 30 seconds from the time of dispatch, and an ALS unit will arrive within 9 minutes from the time of dispatch 90% of the time within the Urban Response Area (See Section IV for a definition of the URA). These performance targets should be monitored and measured annually for comparisons as to the outcomes for service delivery within the noted response areas. Long-range plans (such as those listed in the Essential Services Expansion Plan) are designed to address current areas of deficiencies where these standards are not being met. Four other factors in the total response time continuum (sometimes referred to as overall response time) need to be considered to understand emergency response times:

- Dispatch/process time
- Turnout time
- Travel time
- Total response time

In Figure 7-1 all four of these dimensions are defined with both the current NFPA standard listed along with LFRA's targeted standard for each dimension.

TIME INTERVAL	LFRA STANDARD	NFPA STANDARD
Dispatch/Process Time Extends from when the emergency operator picks up the phone and receives information from the caller, to the time when the emergency call is "toned out" to emergency response units (Fire/EMS)	**75 Seconds**	**75 Seconds**
Turnout Time Starts at the time the emergency is "toned out" to the time when the first responding unit is "Enroute," which is recorded via a radio broadcast or from the unit itself	**90 Seconds**	**80 Seconds**
Travel Time Starts at the time of the "Enroute" prompt by the first-to-arrive unit and ends when that unit is "On Scene" at the emergency	**5 Minutes**	**4 Minutes**
Total Response Time Total of the above times from phone call to "On Scene" of the first Fire/EMS unit	**6:30/7:45**	**6:35**

Figure 7-1 *Emergency Response Data/Times*

Relationships - LFRA and TVEMS and the IGA for EMS

LFRA and TVEMS share in the commitment to strong working relationships between firefighters, paramedics, and EMTs. This commitment has resulted in one of the strongest and best pre-hospital emergency care systems in the region. All teams work together, train together, and plan for the future together. The focal point is always what is best for the citizen. Each organization, and its personnel, share this core value and place a high priority on our relationship. A legal agreement that spells out a variety of operational practices is also in place for both organizations.

LFRA and TVEMS entered into an intergovernmental agreement (IGA) on December 31, 2012, outlining the various responsibilities and commitments that each agency has in providing emergency medical services to the citizens of the Loveland community. It provides details for:

- Level of services provided
- Staffing levels
- Targeted response times
- Other operational practices.

In addition, the agreement sets forth provisions for joint strategic planning between each agency and lists financial obligations. The agreement is periodically reviewed and updated as needed and reviewed with the creation of new or restructured strategic plans for each agency.

Technology and the Future for EMS

Many new technological breakthroughs are likely to develop within the timeframe of the *2018 LFRA Strategic Plan.* Initiatives and improvements in early notification and service capacity will likely have an impact and improve response times and citizen services for EMS. An example of this is "Next Gen 911," which is a system comprised of Emergency Services IP networks, IP-based Software Services and Applications, Databases, and Data Management processes that are interconnected to Public Safety Answering Point premise equipment. The system provides location-based routing to the appropriate emergency entity. Both agencies will need to keep aware of the changes, carefully measure the pros and cons for them, and initiate change when it makes sense and improves the overall EMS services for the citizens.

Planning Assumptions for the EMS System

Certain planning assumptions are included in this strategic plan; those for the EMS system within LFRA's response district are listed below. The recommendations that emerge from this section of the plan plus the following planning assumptions can be found in "Section X – Recommendations/ Implementation."

EMS Planning Assumption 1 - The current model for the EMS system within the LFRA district, which includes BLS services and support functions provided by LFRA and ALS services and transport provided by TVEMS, provides high quality levels of citizen service and a high level of EMS patient care.

EMS Planning Assumption 2 - The response model that is currently in place, with the noted targets for performance of a BLS unit on scene within 6 minutes and 30 seconds from the time of dispatch and an ALS transport unit on the scene within 9 minutes 90% of the time within the Urban Response Area, is appropriate as a target for performance goals.

EMS Planning Assumption 3 - Relevant performance measurements need to be monitored, measured, and reviewed at least annually for adherence to specific standards of performance.

EMS Planning Assumption 4 - A continuing collaborative process between LFRA and TVEMS for strategic and operational planning is necessary for high quality EMS in the LFRA district.

EMS Planning Assumption 5 - A commitment for continuous improvement in the EMS system within the LFRA district will include Basic Life Support Services, Advanced Life Support Services, Emergency Medical Dispatching, and Public Medical Awareness and Training including activation of the EMS system and citizen CPR training.

EMS Planning Assumption 6 - Steps will be taken by LFRA and TVEMS to continue the designation of Loveland as a "Heart Safe Community" for the immediate future.

EMS Planning Assumption 7 - Solid working relationships between LFRA and TVEMS should remain a very high priority for both agencies. Technological advances will occur in the future and will likely have a positive effect on EMS services. Plans for adoption of technology should be evaluated carefully and made when they make sense and improve EMS services.

WILDLAND URBAN INTERFACE OPERATIONS

Wildland fires are those that involve natural vegetation, sometimes covering large areas and threatening dwellings, agricultural facilities, livestock, and even humans. The wildland urban interface problem has grown in recent decades as more of the population migrated away from cities or urban areas to rural or wildland settings. A large portion of LFRA's response district incorporates areas that are comprised of grass, brush, and timber. As a consequence of growth and development, people have moved further into the areas that are known as the wildland urban interface (WUI). Although the Larimer County Fire Plan identifies the WUI as being west of Range 69 (or west of County Road 23 for LFRA), it is important to understand that WUI locations can also be found within and just outside the city limits of Loveland.

Defining the WUI and the Problem

The National Fire Protection Association (NFPA) defines the "wildland/urban interface" as an area where improved property and wildland fuels meet with no clearly defined boundary. The WUI has been defined as the areas where wildland vegetation meets urban developments, or where forest fuels meet urban fuels, such as houses (Dr. William E. Schlosser). For LFRA, specifically, the primary focus of the WUI is in the foothills, generally west of County Road 23 and the hilly areas of Pinewood Reservoir, Bobcat Ridge, and along Reservoir Road. Much of this is in the Big Thompson Canyon's area of initial response. The area includes steep slopes, high concentrations of brush, and areas of relatively dense forest. In the last fifteen years, this segment of the fire district has had at least four very serious fires; three escalated in size and magnitude to involve both state and federal resources for management and operations. In recent years, building permits in this WUI zone have stabilized, but a sizeable portion of the residents in the Loveland Rural Fire Protection District live in the WUI area. It is likely that as the economy stays strong, the WUI area will see additional population growth and more structures built. Thus the WUI problem for LFRA is not likely to decline during the years of this plan.

Several important factors impact urban interface wildland fire risk, with the most significant factor involving humans. The greater the number of people, residences, and other buildings in the WUI zone, the greater the potential for fires to occur, resulting in larger property loss. Building construction and site features such as combustible roofing, siding, large eaves, long narrow driveways, and trees and vegetation close to the structures have all contributed to structure loss and increased fire spread. Buildings with combustible roofing materials are particularly prone to loss and may contribute to fire spread in higher density developments. The lack of adequate water, narrow and steep roads, long dead end roads, and longer distances from fire stations and firefighting resources all hamper firefighting efforts in this theater. Weather conditions, especially high winds and low humidity that are common to northern Colorado, greatly exacerbate the fire and life safety problem in this high-risk zone.

Addressing the Problem in the WUI

LFRA's first incident priority is the protection of life (Life Safety), followed by the preservation of property; these are the same in the urban structural theater. LFRA's primary strategy is a rapid attack on the fire when it is still small enough to contain. In cases where fires grow too quickly to control with initial attack resources or to escape initial firefighting efforts, the priority shifts to evacuation and protection of significant structures or resources. Large wildland fires of this magnitude are infrequent; however, LFRA has experienced several since 2000, the year of the

Bobcat Gulch Fire, which burned over 10,000 acres west of Loveland. In the subsequent years, wildland fires in the region have involved tens of thousands of acres, hundreds of homes, and millions of dollars in property loss or containment costs. The Reservoir Road Fire, which occurred in September of 2010, destroyed two homes, several other buildings, and more than 750 acres, with costs totaling over two million dollars for firefighting efforts. Fort Collins, Boulder, and Colorado Springs have experienced even more devastating fires in the WUI zone in the last several years.

Currently, few effective planning and regulatory tools are available to guide development in wildland areas with the goal of reducing fire risk in the long term. While new public streets and private roads serving multiple homes must meet current development standards, existing roads and many private driveways are severely deficient. Water supplies are almost completely unavailable or inadequate in many areas. Finally, no legal mandates are in place to control combustible fuel loads around and between structures. Although there are guidelines and recommendations for home and property owners to reduce the wildland fire risk, experiences in other jurisdictions have shown that many residents are reluctant to take precautionary measures or comply with the recommendations associated with the *Red Zone* program currently in use by LFRA. Red Zone is an incident mapping and field survey software program designed specifically for wildland fire use. The problem in the WUI zone is difficult and will require a multi-tiered action plan to reduce risk and ultimately save property and lives.

Some positive initiatives and developments have improved operations within the WUI area. The State of Colorado has purchased multi-mission aircraft that utilize high altitude thermal imaging technology for early detection of wildland fires. Also, more single engine air tankers (SEAT) are available for deployment in various parts of the state. LFRA has also adopted the Five Point Approach model, which has had some success and impact in fire prevention and mitigation. However, too many homeowners in the WUI are still not participating in any form of fire prevention and mitigation measures. Other changes will be needed to effectively deal with a growing fire problem in the WUI.

The LFRA Model: Five Point Approach

In order to adequately address the threat of wildfires in the rural areas and the wildland urban interface, LFRA utilizes a five-point approach focusing on community risk reduction: education, engineering, enforcement, economic incentives, and emergency response. Community risk reduction and mitigation are typically accomplished through the use of these five points:

1. Education: As the wildfire threat continues to grow, so does the need to educate the public about the dangers associated with this type of fire and about the measures they can take to reduce the potential impact to their property. In order to realize this goal, it is recommended that a multi-faceted approach be taken by using the Internet, social media, printed material, and community meetings. Cost estimates for this effort are unknown at the time of this writing and no funding stream has been identified. It should be noted that education programs are only as effective as the level of interest on the part of the homeowner/citizen. As stated above, it is difficult to get residents in the WUI area to believe the wildfire problem is significant enough to warrant action on their part. This is a hugely limiting factor for the education point.

2. Engineering: This point will be realized through two primary methods: fuel mitigation near and around structures and through the use of planned "prescribed fire" burns on

public lands. The fuel mitigation will be carried out by property owners but may be assisted through available state grants. Generally these types of grants require a 50/50 match with the requesting agency. Fuel mitigation may also be addressed through cooperative agreements with Larimer County and the State of Colorado. Cost estimates for this effort are unknown at the time of this writing and no funding stream has been identified. In regards to prescribed fire, this is a proven method to reduce the threat of large wildfires on public lands. The City of Loveland owns over 4000 acres of open space, and much of that abuts residential areas. Furthermore, several thousand acres of open space in the LFRA jurisdiction are owned by the federal government, the State of Colorado, Larimer County, and the City of Fort Collins. The very real threat of a wildfire spreading into a residential neighborhood can be greatly reduced through the implementation of a prescribed fire program. This can be conducted in cooperation with the State of Colorado, Larimer County, and The Nature Conservancy. In order to adequately perform a prescribed fire program, it will be necessary to increase the annual overtime budget for the costs of off-duty wildland firefighters. Off-duty firefighters are utilized to maintain shift strength and community service levels for other fire protection needs.

3. Enforcement: Enforcement has two primary components: adoption of effective fire codes and adequate staffing for enforcement duties. This two-pronged approach has been a very successful strategy in the urban theater of operation, and it can work in the WUI as well. Regional adoption of *International Wildland and Urban Interface Code*™ would be the most effective initiative toward improving conditions in the WUI. If Code adoption were to become a reality, it would be necessary to hire other full time employees (FTEs) that would be dedicated for the purpose of WUI code enforcement and fuel mitigation. The estimated cost for one position is $100,000 per year at full cost budgeting. Grants for positions of this type could be an initial option, but a long-term funding stream would need to be identified in order to continue the service.

4. Economic Incentive: Although the City of Loveland and the Loveland Rural Fire Protection District are not in a position to provide direct economic incentives to the public, this portion of the plan may be realized in reduced insurance rates and a reduced wildfire threat to property. Other options in the future could include some type of incentive program that could be conjoined with a reduction or elimination in the Capital Expansion Fees, or impact fees, for new developments.

5. Emergency Response: Eventually, the likelihood is that in spite of the best efforts, the previous four methods will have some failure and a wildfire will break out. This will happen through lightning, downed power lines, unattended campfires, intentionally lit fires, etc. When this occurs it will be necessary to respond in a timely and professional manner with an adequate level of resources, staffing, and equipment to successfully mitigate a wildland fire.

The emergency response approach is without a doubt the most costly and the most impactful of all of these five points. It will be necessary to address emergency response primarily through training and apparatus.

Training: Currently all suppression personnel within LFRA are required to maintain the S130/190/L180 Basic Wildland Firefighter certification; these are national, standardized training minimums for firefighters in the WUI. Officers are also required to maintain S215, Structure Protection in the Wildland Urban Interface. Beyond that level captains and chief officers must have S290, Intermediate Wildland Fire Behavior. In order to ensure that all officers of LFRA have a high level of proficiency it is recommended that every officer and acting officer obtain S290 and the appropriate classes for the engine boss qualification. It is also necessary for captains to obtain qualification at the strike team/task force leader. Chief Officers need to obtain certifications at the group/division supervisor and Incident Commander for Type 3 level incidents. In order to accomplish this, cost increases for wildland firefighting operations will occur. Cost estimates for this effort are unknown at the time of this writing and no funding stream has been identified.

Apparatus: LFRA currently operates with three brush trucks (Type 6 engines) and the Big Thompson Canyon VFD has two. To adequately meet the operational needs for safe and efficient wildland firefighting, it will be necessary to maintain a strong apparatus replacement program. Many of these wildland firefighting vehicles fall below the minimum costs for the overall LFRA Apparatus Capital Replacement program; alternate funding sources will be necessary.

WUI Operations for LFRA and Other Agencies

The WUI Theater, because of the size and complexity of the area, often requires firefighting resources beyond the local capabilities of the fire department. If the fire goes beyond the control of initial fire attack, LFRA will often request mutual aid fire companies and county fire resources. Occasionally, a fire in the WUI will go beyond this next level causing state and even federal resources to be called in to assist or take over the incident entirely. Both operational and legal agreements are in place to deal with expanding fire-related incidents beyond initial fire attack in the WUI. There is a process for the “delegation of authority” for larger incidents where the responsibility and authority is transferred to another agency (i.e., county, state, or federal supervision). The majority of the fire incidents within the WUI for LFRA are handled with local resources or with the addition of mutual aid resources.

Future Changes in the WUI Theater

As with so many of the issues identified within this strategic plan, predicting the future is an uncertain venture; this is particularly true in the wildland urban interface theater. It is unclear what the population, structures, or building increases will be in the LFRA WUI zone in the identified years of this plan (2018-2026). It is also unclear what additional funding will be available to enhance the capabilities, both operationally and in pre-planning and pre-fire mitigation, for the Fire Authority's district. Another unknown is the amount of support that will continue to be provided by the federal government and state government for local wildland fire operations. Recent events suggest that federal resources and funding are likely to be reduced and that state and local authorities will probably assume more funding responsibilities.

A study published by the National Wildfire Coordinating Group (NWCG) titled *Evolving Incident Management: A Recommendation for the Future* suggests that a shift in responsibility for incident management will likely occur, with the state and local jurisdictions taking on more management responsibility in the form of localized Incident Management Teams. A corresponding outcome of this will also likely be a shift in the responsibility for costs of such

incidents. Clearly, this theater of operation is in a state of flux, and change is to be expected. It will require due diligence on the part of LFRA staff members to anticipate, plan for, and adjust operations as necessary to adapt to future changes. One key area of focus should be on continuing the development of strong relationships with regional departments and forming even stronger operational partnerships for the future.

Some very positive aspects for fire operations in the WUI are anticipated. Technology changes will likely prove to be very advantageous to firefighters in the future. Use of drones, high altitude thermal imaging, and enhanced inter-agency communications will provide firefighters more and better resources for early notification and initial fire attack. Regionally, improved working relations with area fire departments and WUI service providers will result in better strategic and tactical operations. The future holds real challenges but also great opportunities that can be capitalized on for improved life safety and property conservation.

Wildland Planning Assumptions

Wildland Planning Assumption 1- Future trends suggest that the WUI problem is likely to increase from 2018-2026 because of more people and structures within the WUI zone.

Wildland Planning Assumption 2 - The current model of fire protection and mitigation for wildland fire operations will likely not be adequate for the future. More resources and funding will need to be invested to keep up with the anticipated future needs.

Wildland Planning Assumption 3 - Federal and possibly state resources that fund current efforts may be reduced or even eliminated in the future.

Wildland Planning Assumption 4 - Development of even stronger operational partnerships and regional cooperative relationships will be needed to offset the loss of federal and state resources in order to maintain an adequate and reliable emergency response. Local Incident Management Teams (IMTs) should be evaluated and developed for future operations in the region of northern Colorado, including areas within the LFRA response district.

Wildland Planning Assumption 5 - If voluntary programs such as education and engineering in the Five Points approach above are successful, many of the problems listed in this section of the plan could be adequately addressed. Any improvements, trigger points, and tracking of data should be identified and implemented into the long-range future plans.

Wildland Planning Assumption 6 - New programs for community education and involvement in the WUI area will need to be evaluated and pursued in order to make prevention and mitigation programs more effective. LFRA should consider the *Ready, Set, Go Program** for the future.

Wildland Planning Assumption 7 - Enhancement of the resources within Stations 8 and 9 will be a part of the plan for improvement in the WUI for LFRA. The opening of new Fire Station 7 will play an important role in training and coordinating the available WUI resources for LFRA and other regional partners.

***** *The Ready, Set Go Program, managed by the International Association of Fire Chiefs (IAFC), seeks to develop and improve the dialogue between fire departments and the residents they serve. Launched nationally in March 2011 at the Wildland-Urban Interface Conference (WUI 2011) the program helps fire departments to teach individuals who live in high risk wildfire areas – and the wildland-urban interface – how to best prepare themselves and their properties against fire threats.*

LOVELAND FIRE RESCUE AUTHORITY SPECIAL OPERATIONS

Special Operations for LFRA define a particular service or skill set for emergency response that is different than fire and medical emergency calls. These special operations would include:

- Hazardous materials
- Specialized/technical rescue
- Swift water and open water rescue
- Large animal rescue

It has been a long-standing tradition of the fire service to be ready to respond to virtually any emergency call that is not specific to another department's or division's responsibility - for example, law enforcement. From this commitment to citizen safety and citizen service, the fire service adopted an approach of specializing its training and responses for a wide variety of emergencies. Thus, enhanced citizen service was the impetus for a special operations team.

LFRA's Special Operations Team (SOT) was developed in late 2005 by combining long standing LFRA teams such as the Haz-Mat and dive teams. The concept of SOT is to have one team cross-trained to handle all special rescue and hazardous materials incidents. The team's mission statement is as follows: "*The Special Operations Team's goal is to provide coordinated and efficient specialized rescue services and hazardous materials response to the citizens of Loveland and the Loveland Rural Fire Protection District. Also, to maintain a high degree of mobility with the ability to deploy a response element as requested throughout the region."*

SOT is divided into three main operational areas: Dive Rescue, Hazardous Materials Response, and Urban Search and Rescue (USAR). Several sub-rescue areas are derived from these overall categories including swift water and open water rescue, low angle and high angle rescue, trench and confined space rescue, and more. SOT is made up of members from several fire and EMS emergency services agencies including:

- 34 LFRA firefighters
- 10 TVEMS paramedics/EMTs
- 3 Berthoud firefighters
- 3 Windsor-Severance firefighters
- 3 Front Range Fire Rescue Authority firefighters (future)

Typically, skills and certification levels follow a pattern of ascending levels that include three primary levels of training and competency:

1) *Awareness Level*. This level represents the minimum capability of organizations that provide response: recognition of dangers, notification, and basic abilities to act in a way to isolate or protect lives.

2) *Operations Level.* This level represents the mid-level capability of organizations to respond to incidents and to identify hazards, use equipment, and apply limited techniques specified to support and participate in incidents.

3) *Technician Level.* This level represents the high-level capability of organizations to respond to incidents and to identify hazards, use equipment, and apply advanced techniques necessary to coordinate**,** perform and supervise more technical incidents.

All SOT personnel are trained to the "operations level" (or higher) in each special operations discipline. Each operational area has several technician-level trained staff.

SOT personnel are assigned to all three shifts, providing an on-duty response to any SOT incident. Off-duty SOT members are paged for response as needed. Fire Station Two houses all of the SOT apparatus and equipment. Daily shift staffing includes a minimal number of SOT personnel on duty each shift.
LFRA SOT has developed professional relationships with several area emergency response agencies, including Colorado Task Force 1, Larimer County Search & Rescue, Northern Colorado Bomb Squad, Larimer County Dive Rescue, Colorado State Patrol Haz-Mat Response, Poudre Fire Authority's Rescue Team and Haz-Mat, Greeley Fire Department's Haz-Mat, and the Longmont Fire Department's Haz-Mat and Technical Rescue Teams.

The number of trained specialized rescuers at a technician or higher level for LFRA in the various SOT disciplines includes the following numbers:

- Collapse rescue 8
- Confined space rescue 7
- Hazardous materials technicians 15
- Large animal rescue 2
- Rope rescue 18
- Swift water 15
- Trench rescue 16
- Dive Rescue (open water) 11

Current and Future SOT Operations

The existing model for specialized operations for SOT is adequate for the current demographics and response demands of the community. Since 2005 LFRA has developed one of the region's most capable and strongest specialized rescue teams. The team has proven its value, capabilities, and proficiency on numerous calls within the LFRA district and region, including the Windsor tornado in 2008. LFRA's team concept is a unique approach to dealing with specialized operations and has been emulated by other departments and agencies. However, from a strategic perspective, the LFRA SOT has both current and future needs. In addition, there are legitimate concerns about the future availability of federal resources and support for federal rescue teams such as Colorado Task Force 1 which is a deployable Urban Search and Rescue Team (USAR) located on the Front Range in Colorado. Many of these future concerns for a continuance of federal and/or state resources and support are driven by economic variables and are similar to the concerns outlined in the wildland urban interface portion of this plan.

The LFRA Special Operations Team must address both current needs and identified future needs in order to maintain an adequate and reliable response to specialized emergency calls. Some equipment and capital items are needed for the team to operate to the desired level of proficiency, including the purchasing of certain additional rigging and rescue equipment, as well as replacing equipment as it ages or becomes obsolete.

The majority of these are normal budget items that can be planned for and included in future budgets. Others are more strategic and require additional planning and financial considerations beyond the normal team budget. An important part of the future planning is to maintain and/or

increase the number of trained technicians on the team. Some of this specialized training, such as for haz-mat techs, is time intensive and costly and will require additional one-time and on-going funding to achieve these goals.

Heavy Rescue Two and Beyond

One of the more significant operational enhancements outlined within the *2012 LFRA Strategic Plan* was the addition of a northwest heavy rescue squad. With the opening of new Fire Station Two in 2014, Heavy Rescue Two became a reality. This additional company has improved the day-to-day fire-rescue operations, providing additional truck or support services, and it has upgraded specialized operations. Operationally, this addition has augmented shift resources for specialized operations by having a designated unit that will carry the needed tools and equipment for SOT operations. For the *2018 LFRA Strategic Plan*, two areas are identified for action in the SOT area:

- Taking steps for continuous improvement for SOT resources and equipment
- Continually improving personnel training on SOT equipment.

Heavy Rescue Two has been a true success story for LFRA; regular fire-rescue services have been improved by this piece of equipment and the personnel assigned. In addition, the specialized rescue (SOT) services have been boosted. What is needed now is an overall plan to maintain and grow this level of service. Specialized equipment continues to be developed for SOT functions; LFRA will need to develop a cogent funding stream for purchase and replacement of such equipment. Ongoing training of personnel will also be a strategic initiative for the future; funding sources must be identified for this needed training.

One area that has been a challenge for on duty crews is the staffing for Heavy Rescue 2. Currently, Rescue 2 is staffed with a minimum of two personnel (officer and engineer) and the shift Fire Inspection Technician (FIT). Over time, the FITs have gotten busier, and their time has been limited for training and participation at the company level and in their availability for emergency response. Rescue 2 often responds and arrives on the scene of an emergency as a two-person crew. What is needed is another firefighter on each shift in order to create a true three-person crew for Rescue 2. There may be other ways to implement a three-person crew for Rescue 2, but for now, the heavy load for inspections and fire prevention related work, plus the extra workload for training and emergency calls, is proving too much for the current model of staffing.

Regional Specialized Rescue Teams and USAR

One of the needs currently being evaluated for SOT is for a regional specialized rescue team in Northern Colorado. Discussions have already begun about the possibility of working with the state's USAR Team (Colorado Task Force 1) and its regional members from Poudre Fire Authority and Longmont Fire to create such a team. However, operational agreements need to be developed and approved within the region for mutual aid responses, particularly in the area of hazardous materials calls and technical rescue (USAR) type calls. Much of the current regional effort is focused around the departments within the Front Range Fire Consortium (FRFC); however, more work in developing cooperative operational agreements for specialized operations should be done. Several of the FRFC departments, including Longmont and PFA, have team members with the state's USAR team. Expansion of the concept of a regional or local specialized operations team or USAR team that can interface with the current FEMA USAR

team should be evaluated further for operational effectiveness and feasibility. LFRA members serving on Colorado Task Force 1 is another option that may be pursued in the future.

SOT Planning Assumptions

Special Operations Planning Assumption 1- The current model of operations for SOT works well and is adequate for the current call load and community demand for services in this area.

Special Operations Planning Assumption 2 - Future growth in the community and region surrounding LFRA's response area will likely place much more demand on the services of the department's SOT and render the current model inadequate.

Special Operations Planning Assumption 3 - Additional funding will be needed to account for additional training and equipment for SOT processes. Funding streams within LFRA will need to be identified and obtained in order to maintain an adequate level of SOT services and emergency response capability. Alternate funding streams, including grants, will need to be investigated to address the needs created by growth and expansion.

Specialized Operations Planning Assumption 4 - A regional approach to the problem of enhanced services needed for SOT is perhaps the most viable and best option for maintaining and improving overall specialized operations service levels within the LFRA response area. The idea of developing a regional team for specialized operations should be investigated within the time parameters set forth by this plan. Some progress has been made in this area in the last few years; more needs to be done to formalize agreements and develop even stronger working relationships with other regional agencies.

Specialized Operations Planning Assumptions 5 - The linkage to the state's FEMA USAR Team, Colorado Task Force 1, is a viable option and enhancement to the local and regional team approach for special operations. Work should continue within the timeframe of this plan to develop emergency response agreements (IGAs or MOUs). A more seamless process for request for service, dispatch, response, and deployment should be developed for the local and/or regional specialized operations team with other state and federal agencies.

Specialized Operations Planning Assumption 6 - LFRA membership into the Colorado Task Force 1 Team would benefit LFRA and the Loveland community. Efforts should continue to pursue openings on this team for LFRA personnel.

Specialized Operations Planning Assumption 7 - The staffing levels on Heavy Rescue 2 is an issue that needs to be addressed within the *2018 LFRA Strategic Plan*. The current three-person minimum staffing level includes the FIT position, which renders Heavy Rescue 2 to a two-person company a significant amount of the time until the FIT can arrive on the emergency scene. This is listed as a high priority item for the *2018 LFRA Strategic Plan*.

LOVELAND FIRE RESCUE AUTHORITY AND TRAINING

One of the most important missions of LFRA is the effective training of its personnel to meet the challenges of emergency response, fire protection, and prevention services. The department has had a long history and commitment to training. Back in 1979 the Loveland Fire Department and the volunteer firefighters of that era began building the department's training facility, located south and east of 1st Street and Railroad Avenue. This facility has now become one of the most versatile, and most often used, training centers in all of northern Colorado. The physical aspects of nearly every fire/rescue-related training function can be carried out at this facility. A major emphasis is placed on the use of props and replication to achieve the highest level of virtual reality training and reality-based training. However, LFRA training and the department's training program are much more than just facilities, buildings, and props; training for LFRA is a core value. Loveland's fire department has long been known for its commitment to training by other fire departments in the region and throughout the state. The minimum hours required for certification and continuing education are met and exceeded by every LFRA fire company and individual firefighter. In addition, the department does more live fire burns and training evolutions than any other department in the region.

In the 2013 flood the LFRA Training Center was significantly damaged. Classrooms, offices, and several training buildings suffered major damage and were out of service for the better part of one year. In 2014 additional land was purchased, adjacent to the current training property, but out of the restricted flood plain area. This land will function as the future home for several new training buildings and props and will be a long-term training solution for the organization’s training needs. To this end, an LFRA Training Center Master Plan is being developed and a new burn building is planned to be built in 2018. This is the first step in the overall Training Master Plan; the burn building is included in the ESEP’s first phase.

Today, LFRA continues to be committed to training and is building on the great foundation laid by the department's firefighters from the past. The training division for LFRA is committed to continuous improvement and maintenance of the core values around a strong training program.

The Training Model and Staff

The current training model and staffing supports a managed plan for both centralized (training battalion-sponsored) and decentralized (company-managed) training. The training staff consists of one training battalion chief (BC), one training lieutenant, and one engineer managing training for the airport, three shift training captains on Tower Six, and three shift captains on Engine 2. The training BC and lieutenant are full-time 40-hour positions that are devoted primarily to the LFRA training division. Training functions within the Community Safety Division are carried out within that division or via outside training classes and courses.

Blue Card Hazard Zone Management Training

In 2010, LFRA began a coordinated effort to improve the strategic and tactical decision making abilities of its officers and firefighters; The Blue Card Hazard Zone Management system was the vehicle selected to help facilitate that effort. The Blue Card Incident Command Certification Program has been developed by Alan, John, and Nick Brunacini to first instruct and then certify fire officers who serve in the role of Incident Commander or as a member of an Incident Management Team (IMT). Through the program fire officers become certified to supervise and manage emergency and hazard zone operations for localized incidents categorized by the

National Incident Management System as Type 4 and Type 5 events. These incidents account for more than 99 percent of all fire department response activity. This program teaches officers how to command everyday incidents with mastery, and it effectively trains for competency in dealing with more large scale emergency incidents.

Blue Card is a blended course experience that incorporates 50 hours of online instruction with three days of classroom simulation training. The Blue Card Command Certification Program is a training and certification solution that teaches Incident Commanders and other officers how to standardize local incident operations across their organization. The program uses a combination of online and in-class simulation training which results in an Incident Command solution. LFRA has all of its officers and acting officers certified at the Blue Card level. In addition, LFRA operates a regional Blue Card Training Center that has been integral in helping nearly all of the regional departments get their personnel certified. Blue Card Hazard Zone Management training has been a significant effort in LFRA's training plan and has positively shaped the entire northern Colorado region.

Regional Training Cooperative

The LFRA Training Battalion devotes a portion of its time, by written agreement, to regional training in a mutually cooperative and mutually beneficial manner. This includes recruit academies and other ad-hoc training through the Front Range Fire Consortium (FRFC), in which Loveland has held membership for nearly 15 years. Aims Community College and its Fire Science/Fire Academy programs and other regional departments also have agreements with LFRA for the use of the training center. Over the years, the cooperative nature of these agreements has been significantly advantageous for LFRA. The department receives many tangible and intangible benefits from the cooperative regional relationships and agreements crafted through the training division. This, again, is directly linked to the "Relationship" portion of the LFRA mission. In recent years LFRA has taken on more of a leadership role in northern Colorado's firefighting community; the training efforts have been one of the key reasons why. Relationships forged through training with regional departments have had a real and positive impact on LFRA through the many mutual aid and automatic aid agreements that the department holds and with which it operates. In 2017 the FRFC legally became an *Authority*. The organization now has a cogent business plan and is developing a long-range strategic plan. One outcome of these changes is in the practice of fair financial reimbursement for the use of department resources such as facilities, equipment, and personnel. LFRA will benefit financially in the future with this change in business practices for the FRFC.

The Current and Future Needs for Training

The existing operational training model for LFRA is working with the department's current call load and staffing levels. However, as the department sees increases in call volume and the number of personnel increases in the next eight - ten years, the demands on the training battalion will exceed the division's ability to meet those demands. Regional training responsibilities do add to the workload and demands on a minimally-staffed training battalion. Over the next eight years, the LFRA's training battalion will need additional staffing to include:

- Additional training captain, lieutenant, or officer level assistance
- Training firefighter or engineer
- Training administrative assistant.

In addition to the staffing needs for the future, a careful analysis should also be conducted to determine how training would be managed and carried out in the future. A comprehensive analysis is needed with a resulting plan made up of three areas of responsibility:

- Centralized - what the training battalion's staff will provide
- De-centralized - what the company level training management model will be
- Ad hoc training - what will be offered from outside sources on a one-time or specialized effort.

The outcome of this analysis and planning should result in a multi-year training plan for LFRA that is in alignment with future long-range plans. Another area that needs to be addressed within the department's training needs is in technology. Changes in technology, such as in the area of video-conferencing, could have significant impacts on how classroom training is carried out and the amount of time fire engines and firefighters actually need to be out of their response areas at the training center. The use of technology could positively impact area coverage and response times for fire companies.

One final area that this strategic plan needs to address is the area of additional land acquisition. In 2014 LFRA purchased additional available land for flood protection. A valid reason for purchasing even more land is to enhance the buffer between what LFRA currently owns and property to the north that will likely be for sale in the future. The targeted land is in the flood plain, so it is unlikely that a commercial business or residential property would be built there, but other concerns about the training center could be raised, and possibly compromise the LFRA's ability to be a full-service training center, if that land is purchased by another party.

Training Planning Assumptions

Training Planning Assumption 1- Based on current firefighter staffing levels and call loads, the current training staffing levels will not be inadequate for the future training needs of LFRA.

Training Planning Assumption 2 - There is a need for an additional full-time 40-hour firefighter within the training division to help with the basic level training work. Other personnel expansion, such as a dedicated administrative position, would also need to be considered within the timeframe of this strategic plan.

Training Planning Assumption 3 - A comprehensive long-term analysis for how the training efforts will be carried out in the future using the centralized, decentralized, and ad hoc training delivery methods should be carried out and included in this as part of this and future strategic plans for LFRA.

Training Planning Assumption 4 - An evaluation of relative training technology needs to be initiated in order to make classroom and other training more efficient and effective and have a positive impact on area coverage and emergency response times.

Training Planning Assumption 5 - Additional land acquisition should be investigated to increase and improve the existing buffer between LFRA's training center and other area properties.

LOVELAND FIRE RESCUE AUTHORITY SAFETY AND SURVIVAL

Both firefighter and citizen safety and survival are primary elements of the department's overall mission. In today's fire service, safety is one of the most focused areas of concern and yet one of the least thought of as part of the strategic planning process. LFRA is committed to a core value of *the enhancement of citizen and firefighter safety and survival*. This area is one of the most important parts of the department's overall commitment to quality and continuous improvement. It is also a strategic consideration because of the importance of making intentional and calculated plans for improvement.

The LFRA Safety Model

Enhancing safety in fire and rescue operations can be a very difficult task. Firefighting and rescue operations by their nature are unsafe and at times unpredictable environments. Nevertheless, the American fire service has learned a great deal since 1985 and the advent of the first National Fire Protection Association (NFPA) standard on firefighting and safety: *NFPA 1500 Standard on Fire Department Occupational Safety and Health Program.* This landmark document set the stage for expectations for all aspects of fire-rescue operations and the needed health programs to ensure firefighter health and safety. LFRA is committed to meeting the intent of NFPA 1500 and improving occupational health and safety for its employees.

The current safety effort and model for the LFRA addresses safety, health, and fitness through attention to the following:

- Firefighter staffing levels on fire companies that meet minimum requirements
- Operating within an approved and standardized command system
- Command level training and certification for all officers and acting officers
- Training in situational awareness and tactical decision making under stress
- Proper firefighting apparatus and equipment that comply with industry standards
- Regular fitness evaluations and screening
- Adequate training programs and certifications for safe tactical and task level operations
- Specific training programs dedicated for firefighter safety and survival
- Staying active with City of Loveland safety and health policies and operational methods
- Following “Best Practices” for reducing firefighter exposure to carcinogens.

From a strategic perspective, the challenges for LFRA in this important area are really threefold: first, having a long-term financial strategy and plan that supports current efforts to enhance firefighter safety; second, having a plan in place to stay current on changing safety trends and the various laws or standards that affect operations; and third, having a strong and rational method of evaluation of the department relative to current and future changes. Another added challenge is the overall management and oversight for a department health and safety program.

Community Risk and Safety Models

Risk factors and an overall strategy for community safety are found in other areas of this plan. The Community Safety Division (CSD) operates with the safety of our citizens as a primary function. Safety is built into the planning and building process, as well as fire and safety inspections and code enforcement. The accreditation process has initiated a complete community risk assessment and standards of cover as a means of addressing these risks. See Section VIII

Community Safety Division for more on these areas and the overall action plan for community safety.

Current Safety Needs

The current state of LFRA's safety program would be considered adequate by most standards, yet needs still exist and changes should be made for improvement. Several programs are in place and functioning to ensure that the department continues to make progress towards enhancing citizen and firefighter safety and survival. However, there is a lack of a specific, long-term plan and funding mechanism that deals with supporting the enhancement of safety. This should be a part of this plan and future strategic plans as well. The hiring of the HR Manager, and the Administrative BC position, will have a positive impact on safety and risk management within LFRA; specific policies and procedures will need to be developed as well as mechanisms for evaluating the organization's progress in addressing safety and survival issues.

Future Safety Needs, Concerns, and Evaluation

The area of safety is a continuing and evolving process. History has proven that changes in laws and standards will likely continue and will also have a financial impact on fire departments as they work to meet new laws and standards. These changes can come in the form of changes for apparatus and equipment, which cost more to purchase and have a defined shelf life, or in new regulations that require additional staffing or positions on the fire scene. Most fire departments do not plan for these kinds of changes and are caught behind the proverbial "power curve" when something like the Fed-OSHA "Two-In, Two-Out" regulation (requiring additional firefighters staged on an emergency scene for rescuer safety) is passed. As part of this strategic plan, methods of current and future operations should be evaluated based on safety regulations, and standards and methods should be developed to meet the intent of such changes so they can be incorporated into department operations and budgets. Another noted need is the assignment of direct oversight and management of the department's health and safety program to a chief level officer.

Evaluation

LFRA needs to develop a workable method for department evaluation relative to safety and current standards or regulations. It is not feasible for a department to expect to meet each and every industry standard related to safety (such as every provision stipulated in NFPA 1500). However, it is reasonable to have in place an effective and reliable system of evaluation in order to meet most safety standards and all legal requirements for safe, sane, and predictable operations. Developing short and long-range planning to address the department's areas of deficiency when it comes to safety, and meeting the intent of all safety guidelines and standards, are reasonable expectations. Without an identified and effective planning process, it is doubtful that LFRA will keep pace with the changing standards for safety, and the goal of continuous improvement in this arena will be severely hampered.

Cancer Prevention

According to the results of a study published in the *Journal of Occupational and Environmental Medicine*, firefighters have an increased risk of developing certain types of cancer. Firefighters are exposed to many potentially hazardous substances, including diesel engine exhaust, soot, benzene, chloroform, styrene, and formaldehyde. These substances may be inhaled or absorbed through the skin and have been known or suspected as carcinogens. Four types of cancer were more common among firefighters than among other workers in other fields: firefighters were

twice as likely to develop testicular cancer, roughly 50% more likely to develop multiple myeloma or non-Hodgkin's lymphoma, and 28% more likely to develop prostate cancer.
In 2014 a Safety and Health Investment Projects (SHIP) grant project was awarded to the Kent Fire Department (WA) to establish a manual on the "Best Practices" for reducing firefighter risk of exposure to carcinogens. The document published by Kent's SHIP grant project became known as: *Healthy-In, Healthy-Out.* This study and manual is on the forefront of a national movement to educate and reduce firefighters' exposure to carcinogens and reduce the number of firefighters being diagnosed with cancer.

Healthy-In, Healthy-Out sets model guidelines for fire departments to follow that are based around the five functional areas of Incident Command:

- Command - Health and safety infrastructure and policies and procedures
- Finance - Budgetary considerations for equipment, physicals, and wellness programs
- Planning - Developing exposure control plans for apparatus, fire stations, and testing
- Logistics - Maintaining the exposure control plan for cleaning and replacing of gear
- Operations - Emergency scene procedures for use of gear, decontamination, and cleaning.

Healthy-In, Healthy-Out identifies several key areas where firefighters can reduce their exposure to carcinogens in the fire station and on the fireground by taking some simple, initial steps:

- Limiting exposure to diesel smoke
- Proper use of personal protective equipment (PPE) during initial attack through overhaul and gross decontamination
- Wearing SCBA during initial attack through overall and gross decontamination
- Using gross decontamination and cleaning of gear immediately after the fire
- Thoroughly washing and cleaning contaminated gear after the fire at the fire station
- Reducing/eliminating exposure of firefighters to contaminated PPE.

LFRA is committed to improving the safety and survival of its firefighters and reducing the exposure to carcinogens by meeting the intent of the *Healthy-In, Healthy-Out* program.

Safety Planning Assumptions
Safety Planning Assumption 1 - LFRA currently has a good safety culture and a commitment to firefighter and citizen safety, including meeting the intent outlined in *Healthy-In, Healthy-Out.*

Safety Planning Assumption 2 - The nature of firefighting and rescue carries with it inherent risks. LFRA will remain committed to meeting the intent of applicable national safety standards and committed to continuous improvement for the safety and survival of citizens and personnel.

Safety Planning Assumption 3 - Staying committed to enhanced firefighter and citizen safety and survival comes with costs. Some of these costs may be unforeseen and fall outside the bounds of normal financial planning and budgeting as part of strategic planning.

Safety Planning Assumption 4 - Management and oversight for LFRA's health and safety program should be enhanced. A chief level officer should be responsible for this assignment.

Safety Planning Assumption 5 – The organization will need additional efforts for cancer awareness education and reduction in firefighter exposure to carcinogens.

Safety Planning Assumption 6 - Safety planning will be a part of this strategic plan and other plans that follow.

HUMAN RESOURCES AND SUPPORT

Loveland Fire Rescue has grown into a large organization, with a paid staff of nearly 100 personnel, including sworn uniformed firefighters and civilian support staff. Extending support for this number of employees is an important and prodigious assignment, well beyond the ability of one department or manager. Under this heading of Human Resources and Support, three specific areas are identified and will be elaborated on within this portion of the strategic plan:

- Human Resource Management
- Peer Fitness Training
- Peer Support

The intent of human resources and support is to address the whole person's needs in the area of organizational support; mind, will and emotions, and the physical training and support needed. Human Resource Management is the first and perhaps most influential part of this three-tiered approach.

Human Resource Management

Human Resource Management (HRM) is the term used to describe formal systems devised for the management of people within an organization. The responsibilities of a human resource manager fall into three major areas: (1) staffing, (2) employee compensation and benefits, (3) and defining/designing work. Salaries and benefits are anticipated to total $10.6 million in 2018, or approximately 69% of LFRA's annual budget.

HRM services for LFRA were transitioned as an internal service to LFRA in February 2017 with the hiring of a Human Resources Manager. Previously these service had been performed by the City of Loveland Human Resources (City HR) staff. HRM continues a strong relationship with City HR and provides an annual retainer (2017 = $10,000) for support and expertise as needed. Now internal to LFRA, HRM seeks to build on the reputation of LFRA as a great employer by transforming the HR system from reactive and transactional to a more clearly connected and supportive system which encourages safe, productive, and positive work practices throughout the employment life cycle.

In order to change to a more consultative role, HRM will first need to stabilize the HR system and create an HR infrastructure that advances its capabilities. This initial focus will include establishing internal efficiencies, reviewing and updating HR-related policies, effectively administering leaves of absence, conducting compensation studies, and creating webpages for employee/family resources. With this basic foundation in place, HRM may expand its consultative/strategic role in the following areas:

- **Compensation** to align staff compensation with relevant markets and promote an understanding of compensation at LFRA
- **Benefits Programs** to align programs to meet the various markets reflecting the workforce at LFRA
- **Employee Relations** to sustain an environment of employee engagement and empowerment where employees can perform their best.
- **HR Compliance & HR Policies** to promote a culture that is compliant with regards to various employment-related laws, policies, and processes.

- **Talent Management & Staff Development** to better manage human capital, LFRA's primary asset.
- **HR Systems & Data** to advance the critical role of technology and systems in various aspects of HR functions.
- **Risk Management** to protect LFRA from liability through loss prevention and claims management.

A crucial consideration is the amount of administrative tasks that accompany HR functions including records retention/scanning, payroll changes, onboarding/exiting employees, job postings, mailings, personnel changes, etc. Whereas these functions are critical to the operations of LFRA, they take a significant amount of resources from the HR Manager's responsibilities of providing strategic and tactical leadership and support to LFRA. It may be possible for these administrative function to be absorbed by current administrative staff; however, as the City of Loveland and LFRA continue to grow, so will HRM's administrative functions as well as the need for more strategic leadership.

Key elements to HRM success are communication, collaboration, and implementation of those areas identified for initial focus. These initial priorities along with the areas requiring a more consultative/strategic role align with LFRA's mission and vision and together will produce a balanced strategy with a long-term focus

Human Performance Labs and Peer Fitness Training

A firefighter's job responsibilities are physically demanding. Getting into firefighting condition (physically) is not easy. However, the Candidate Physical Agility Test (CPAT) has been in place as a standardized way of assuring that firefighter candidates have the physical strength and cardio endurance to be accepted into a fire academy. The fire academy is the place where the basic fitness levels are developed further to a place where the candidate can function in the physically demanding roles of a professional, structural firefighter. Thus, the first two phases of a recruit firefighter's preparation, CPAT and fire academy training, address the physical training needed to ensure that recruit firefighters have the necessary physical skills to do the job. What is more difficult for fire service organizations is to establish a cogent method of ensuring that firefighters maintain adequate fitness levels. Colorado State University's Human Performance Clinical Research Laboratory (HPCRL) and the LFRA Peer Fitness Training model have proven to be effective methods for ensuring high levels of firefighter fitness.

LFRA has been using HPCRL since 2010 with peer fitness trainers in place a few years after that. The net effect of this system is an ongoing, objective, empirical testing system that is standardized nationally, and an effective prescription and support system to maintain and improve firefighter fitness levels throughout their careers.

The HPCRL staff in the Department of Health and Exercise Science at CSU completes firefighter fitness assessment protocol (physical examinations and individual results counseling) for LFRA firefighters. The firefighter physical examinations consist of a blood screening with complete metabolic panel, body composition analysis (skinfold and hydrostatic assessments), functional strength testing, four day nutritional analysis, flexibility, physician supervised graded exercise test, and a pulmonary examination. These tests are conducted by HPCRL staff and graduate and undergraduate student volunteers. All physical examinations are followed by a one on one follow-up with a member of the HPCRL staff, during which individualized physical test

data is shared with each individual firefighter with strategies for improving cardiovascular disease risk factors and overall fitness levels.

To help improve the safety, performance, and quality of life of uniformed firefighting personnel, the Peer Fitness Trainer (PFT) certification was developed by the International Association of Firefighters (IAFF) and the International Association of Fire Chiefs (IAFC). The program and the certified fitness trainers are managed and overseen by the American Council on Exercise (ACE). Throughout the United States and Canada, the PFT certification identifies firefighters who have demonstrated the knowledge and skills required to design and implement fitness programs, improve the wellness and fitness of their departments, and assist with the physical training of recruits during challenging entry tests and fire academy training. The role of a peer fitness trainer differs from a personal trainer since fire service personnel have very specific needs and an extreme work environment well beyond what the average exerciser will ever face.

NFPA 1583: *Standard on Health-Related Fitness Programs for Fire Department Members* establishes the minimum requirements for the development, implementation, and management of a health-related fitness program for members of the fire department involved in emergency operations. LFRA is meeting the intent of this standard, but not the letter of the standard. The strategic side of fitness evaluations and ongoing peer fitness review and support is dependent upon the dollars spent to continue such programs at an effective level. Ongoing organizational evaluations must be done to keep up with changing trends in the area of wellness, fitness, and evaluation. Selection of the most effective and cost-efficient way to manage and maintain these programs will also need to be an ongoing process for LFRA. The long term health of the LFRA workforce is an important part of human resource development; ongoing funding will need to be identified to ensure that high quality fitness and wellness programs are in place that meet national standards and testing methods.

Peer Support

LFRA has recognized the importance of emotional health in the fire service and has established systems for employees and their families to utilize while seeking emotional assistance. Employees and family members have the option to use the LFRA's Employee Assistance Program (EAP). LFRA also has established a peer support team that provides a confidential peer-to-peer counseling program. Along with the peer support team, LFRA has a licensed psychologist contracted to provide professional counseling services to all employees and their immediate family members. The peer support team is under the supervision of the licensed psychologist, who provides continuing education to the team on a monthly basis. All records of employees seeking counseling are confidential and maintained by the psychologist.

Because all types of emotional support programs are confidential, it is difficult to document the effectiveness of such programs. The HR Manager for LFRA monitors the EAP, and quarterly reports provide information regarding the number of individual intakes, trauma events/ participants, training events/participants, and management consultations. Similarly, the Peer Support program's team psychologist monitors the number of firefighters and family members that utilize the services and reports those numbers monthly to LFRA Administration. Internationally, the fire service has recognized the effects that critical incident stress has on firefighters and their families. Law enforcement recognized this earlier than the fire service and developed the concept of peer support. They found that officers would rather share their feelings with peers (people who understand and have a common background) rather than an unrelated

psychologist that may or may not understand what a law enforcement officer goes through on a day-to-day basis.

For the fire service, and particularly LFRA, the success of peer support programs is twofold and lies with the power of the peer (firefighter) and the bridge to a licensed clinician (psychologist). Training firefighters as peers in critical incident stress and empathetic listening has proven to be an effective way to reach more individuals suffering from stress and connecting them to a dedicated psychologist when necessary. In 2014 LFRA collaborated with Poudre Fire Authority (PFA) in training and developing the first *Fire Peer Support Teams* in northern Colorado. Both PFA and LFRA have worked with surrounding departments in developing and supporting the notion of peer support in the region. Moving forward, LFRA will continue to evaluate the peer support program and make adjustments as necessary for greater success and enhancement to the services provided to personnel.

Human Resources (HR) Planning Assumptions

HR Planning Assumption 1 – The hiring of a new HR Manager will have a positive impact on several areas within the organization. These would include stabilizing the LFRA HR system and creating an effective HR infrastructure.

HR Planning Assumption 2 – HR Management will expand its consultative/strategic role within LFRA in several key areas including Benefits/Compensation, Employee Relations, Policy Compliance, Personnel Development, and Risk Management.

HR Planning Assumption 3 – LFRA HR Management will maintain an effective and collaborative relationship with the City of Loveland Human Resources Department.

HR Planning Assumption 4 – Fitness and wellness evaluations are a high priority impacting firefighter safety and survival. Efforts and programs will be continued and enhanced, meeting the intent of current NFPA fitness standards.

HR Planning Assumption 5 – The LFRA Peer Support program is an important operation for LFRA personnel and will continue to be supported at the current or higher level within the *2018 LFRA Strategic Plan.*

OTHER IMPORTANT AREAS

The last area of this section will address several specialized areas that are not directly connected to LFRA as part of the emergency response, but nevertheless are vital to accomplishing the organization's mission. These area include:

- Law Enforcement
- Utilities and Public Works
- Citizen Assistance (post emergency)
- LFRA Museum
- LFRA Support

Each of these areas will be briefly addressed as to what they actually do with LFRA, how they are integrated into the overall emergency scene management and mitigation, and what future needs or concerns may be forecasted.

Law Enforcement and TACFIRE

LFRA's involvement with law enforcement and specifically Loveland PD (LPD) is one of the most frequently relied on resources in the emergency response spectrum (EMS and paramedics would be the other). Law enforcement personnel are dispatched on the majority of the emergency calls that LFRA responds to. They assist in scene management, traffic safety, and investigation assistance, to name just a few. LFRA and LPD also work together (with TVEMS) in SWAT operations through Tactical Fire (TACFIRE). Specified LFRA personnel are trained and assigned to SWAT/TACFIRE. These personnel train together regularly and respond to law enforcement SWAT-related emergencies together.

TACFIRE of LFRA was formed to assist LPD SWAT with fire service specific tactical and task level services that are needed at these types of emergency calls. TACFIRE members support the LPD SWAT mission with:

- Victim/Officer Rescue
- Fire Suppression
- Forcible Entry
- Ground Ladder Deployment
- High Angle Rope Rescue
- Hazardous Materials Evaluation and Mitigation
- Use of Self-Contained Breathing Apparatus.

The TACFIRE program has been very successful in building strong relationships between LFRA and LPD and is one of the most significant combined tactical operational functions between the two agencies. This is a very unique program that has developed between LFRA and LPD and has been recognized by other fire service agencies as contributory to the exceptional relationships between both agencies. TACFIRE provides value-added emergency services for citizens in the Loveland community and results in a higher level of safety and survival for police officers and firefighters alike. It has been, and is, an excellent program providing needed services between both agencies.

Improvements can be made to TACFIRE and SWAT. During the time of this strategic plan, several areas will be identified for improving and enhancing the program.

As stated, the relationship between LFRA and LPD is unique (and rare) in emergency services. Because of the training and integration into the specialized teams, these two departments work closer together and have more collaboration and cooperation than almost any other fire/police services. This point was identified and commended during the accreditation evaluation in 2017.

One of the biggest areas of need for this specialized area is in the continuity of the relationships between LFRA and LPD staff. While there is a recognized financial commitment associated with training and being a part of TACFIRE, the long-term benefits have proven to be well worth the expense. However, the most important aspect of the future for LFRA and LPD is seeking ways to continue to build the strong relationships the two organizations have fostered. Conducting leadership training together, along with field or hands-on training, should continue as organizational priorities between the two agencies. Regular meetings between the executive levels for chief officers (Fire) and high ranking officers for LPD should happen. This is another, vital area where one of the "Four Rs" (Relationships) has flourished for LFRA and LPD. Intentional efforts should be made to ensure this continues in the future.

Utilities and Public Works

Our public utility providers play an important role in emergency operations. Helping to provide information about water lines (water mains) and assisting on calls where there is a need for the enhancement of the water supply are just two areas where the utility providers are needed. The power utility staff is also frequently needed, usually due to power lines being downed or damaged, or because the power needs to be shut down to a building impacted by fire. These public service workers provide a vital and needed service to firefighters operating on the emergency scene. There is also a needed component of assistance to the utility providers in the planning and built environment. However, this section is focused on emergency response.

The Public Works personnel also assist firefighters with their ability to procure heavy equipment; specialized vehicles; sand and other needed products; and knowledge of the community, waterways and other important local information. The fire department sometimes needs other public service assistance such as from Parks and Rec personnel, but the lion's share of collaborative and cooperative service tends to be with water, power, and public works.

During the 2013 flood, the need for assistance and expertise from these cooperating agencies was evident. Strong working relationships have been built over the years and should be continued in the years to come. Training together and working together in non-emergency settings can help build and strengthen these vital relationships.

Citizen Assistance

The care and support of our citizens after an emergency is a critical function of LFRA's personnel. This begins at the initial level of response as our firefighters operate with skill and caring; our incident commanders continue by managing the incident with professionalism. Our support personnel in the Community Safety Division also assist with investigations and help the citizens return their lives and property to normalcy. Likewise, our personnel assist in taking care of the medical needs of citizens that are injured as the result of an incident. In all, our personnel are meeting the needs of our citizens by carrying out the LFRA mission: *Through commitment, compassion and courage, the mission of the Loveland Fire Rescue Authority is to protect life and property.*

From a strategic perspective citizen service is being done adequately, but could be greatly improved upon. Other regional departments offer dedicated services to their citizens from specially trained firefighters or volunteers that help and assist citizens in need after an emergency incident. Some departments place this outreach responsibility under groups known as Citizen Assistance Response Teams or CART for short. In some organizations, these assistance teams even have specialized vehicles that respond as "on-call" resources to help the citizens take care of logistical and family care issues and help return their lives to as much normalcy as possible.

LFRA should conduct more research in this area and develop the necessary steps to form the organization's own version of the CART. Costs will likely be associated with this enhanced service to the citizens. The level of these additional expenses will be dependent upon the type of CART the organization chooses. LFRA does need to enhance citizen services after fires or other significant emergency incidents. Doing so will help its citizens return their lives to normalcy after such incidents.

LFRA Museum

In all successful organizations, remembering, honoring, and learning the lessons of the past play an important role in achieving a higher level of excellence. This philosophy is a part of LFRA's vision in: "*Going from Good to Great, and Building the Organization to Last with Enduring Greatness."* In order to honor the traditions and accomplishments of the past, LFRA is working to create a dedicated fire museum.

In 2008 the Loveland Fire Exhibit was conceived with the help of retired members of the Loveland Volunteer Fire Department Inc., members of LFRA, and personnel from the City of Loveland Museum/Gallery. The work was organized and led by retired Fire Chief Jack Sullivan. With the efforts of a core group of retired volunteers, fire department artifacts from as far back as 1883 were discovered, catalogued, and prepared for display once a suitable building or area could be procured. In 2010 the Loveland Fire Exhibit/ Museum was provided temporary space in the "sequel" building next to the current Loveland Museum/Gallery. The Loveland Fire Exhibit quickly became one of the best and most complete fire museums in the region. However, the sequel building was scheduled for demolition and the fire museum lost its home in 2014.

Currently, nearly all of the fire artifacts are being stored, once again, waiting for an appropriate building or facility to be constructed or made available for the new Loveland Fire Exhibit/ Museum. This strategic plan has identified the establishment of a new fire museum as an additional priority and a strategic initiative for this *2018 LFRA Strategic Plan*.

At the present time, no funding stream or specific plan exists for the creation of a new fire museum. However, opportunities have developed. In 2017 McWhinney Companies offered to donate land for a new fire station and fire museum on the east side of the city in the Centerra area. What is needed is the selection of a new planning team and a plan for fundraising efforts for the new fire museum. This should be part of a collaborative effort with the City of Loveland Museum/Gallery to develop a more comprehensive Fire Exhibit/Museum Master Plan. Retired volunteers and current LFRA firefighters have expressed significant interest in the creation of a new fire museum, but this effort will take a great deal of planning, organizing, and fundraising to come to fruition.

LFRA Administrative Support

As LFRA has grown in both the size of organization and call load, the responsibilities for a variety of job/occupational needs and concerns have also grown. In many fire service agencies, a Support Division or Support Battalion is created to address these needs and concerns. The Support Division/Battalion concept could/would provide the additional services, management, and oversight required to keep the daily operations of LFRA functioning at a high level. Examples of management and services provided would/could include:

- Budget
- Accreditation/Strategic Planning
- IT/GIS
- Health and safety
- Radios/communication (local/regional)
- EMS
- Facilities
- Modified duty/return to work
- Officer development/leadership
- New construction

Currently within LFRA these functions are assigned to firefighters or officers within the organization; these assignments are made in addition to the firefighters'/officers' regular duties. Often times these assignments are made without the needed oversight and management by a chief level officer. In some cases these necessary functions or needs are assigned to shift BCs or division chiefs - positions where the workload levels are extremely high. Consequently, many needs or functions are addressed on an "ad-hoc" basis. LFRA has grown to the degree where these needs/functions necessitate the direct oversight and management of a chief level officer.

Within the timeframe of this strategic plan, LFRA will need to address the issue of organizational support with the addition of a battalion or division chief officer. This could be implemented from a permanently assigned position or a rotational position. Restructuring of the current staff and workload assignments will likely be needed as a part of this progression. The LFRA senior staff and LFRA Board will have to work through the needs assessment process and determine the best course of action to address an already existing need that is a growing concern within the organization.

Other Important Areas Planning Assumptions

Other Areas Planning Assumption 1 – The ancillary areas that are identified within this section are important to LFRA and integral, in most areas, to the accomplishment of the organization's mission.

Other Areas Planning Assumption 2 – It is important for LFRA to maintain strong relationships with local law enforcement; concentrated efforts to improve these relationships, particularly with Loveland PD, will be continued throughout the duration of this *2018 LFRA Strategic Plan*.

Other Areas Planning Assumption 3 – The citizen assistance program is an important initiative for LFRA to prioritize for the future. The organization will enhance its outreach to citizens that have experienced an emergency event.

Other Areas Planning Assumption 4 – LFRA has grown as an organization and with this growth has come a number of additional responsibilities and needs/functions that could best be managed through a support division chief or battalion chief position. LFRA will need to evaluate this within the timeframe of the *2018 LFRA Strategic Plan*.

VIII. COMMUNITY SAFETY DIVISION

The Loveland Fire Rescue Authority Community Safety Division (CSD) has responsibilities over Plan Review/Permits, Community Outreach, Public Education/Information, Code Enforcement/Building Inspections, Fire Investigations, Emergency Management, and Fire Service Accreditation. All of these programs work in concert with each other and work in tandem with fire suppression activities within the Operations Division to build, educate, and sustain a safe and vibrant community for the Loveland area.

In many of today's more progressive fire departments, the "Fire Prevention Bureau" concept has been replaced by an improved model: the Community Safety Division. Within this model, a more comprehensive approach to community safety includes new concepts that embrace:

- Community risk assessment
- Community risk reduction
- Integrated community risk management plans

Each of these areas is a part of the ongoing mission of the Community Safety Division, which is to reduce injury and loss through preparedness, education, and enforcement. These three areas are an integral part of the organization's planning efforts to improve community and citizen safety and survival; they are also a part of LFRA's fire accreditation process.

For LFRA, the concept of community risk assessment and reduction covers a wide expanse from the urban area with a vibrant retail and business community, to residential areas from single family homes to large apartment complexes, and to the wildland urban interface area. All can be found within the 190 square miles covered by LFRA. The challenges facing the department to improve community safety and survival will be problematic in the future because of the sheer size of the area and the various theaters of operation within. It is also challenging because of the burgeoning population and growth the Loveland community is experiencing now, and will have in the future.

During the City of Loveland's overall effort to reduce budgets and staffing in 2009-2010, CSD was compelled to reorganize and reduce many of the previously offered community outreach safety and prevention programs. The reductions caused a shift in workload that has manifested in an overload situation for the division as planning and building projects have increased significantly in recent years. CSD has put an emphasis on reorganizing and improving customer (citizen) services and on working closely with the City of Loveland to improve the planning and permitting process for commercial builders and citizens alike. The division has expanded since the days of the recession, but only to the same staffing level it had prior to 2009. With sizeable increases in building permits and fire protection system permit applications, the demand has outpaced CSD's ability to keep up (see Figure 8-1).

As we fast-forward to 2017, community growth and building permits are at an all-time high (see Figure 8-1). The increase in building permits and plan reviews, and CSD's greater involvement in City of Loveland's planning and building department, has resulted in significant workload increases for the CSD staff in the last few years. Areas such as public outreach and education, inspections and code enforcement, and emergency management have all been impacted negatively by the increase in workload.

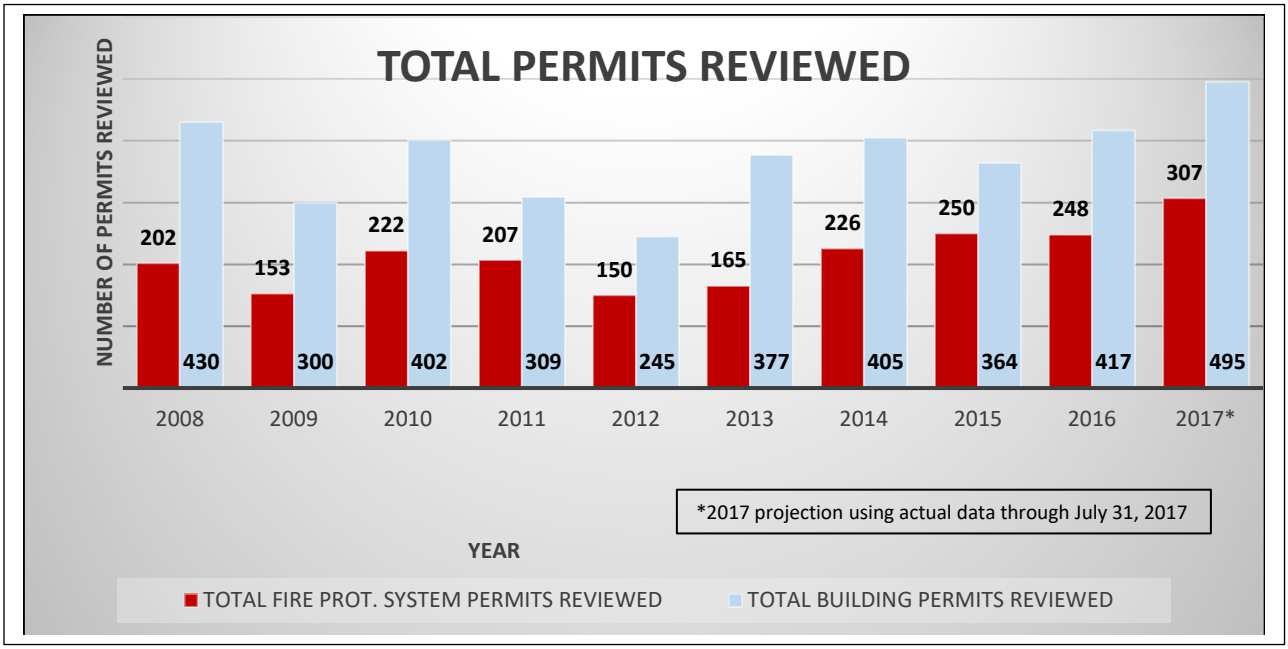


Figure 8-1 *Number of Permits 2009-2016*

In the *2012 LFRA Strategic Plan*, the CSD was included in the section titled Specialized Areas. Because of the growing importance of the CSD in the overall integrated risk management plan for LFRA and the increasing responsibilities for public and firefighter safety and survival, a special section is now devoted to CSD. This change will help in the assessment of needs for the future for this division and ensure a greater level of strategic planning.

OVERALL CSD PROGRAMS

This section will highlight each program or area within CSD and explain what that program does and will need in the future in order to continue to provide a high level of community safety and reduce overall community risk. Seven primary programs or service areas encompass the functions within CSD. They include the following:

- Plan review/permits
- Community outreach
- Public education/information
- Code enforcement/building inspections
- Fire investigations
- Emergency management
- Fire service accreditation

Each program listed above exists to positively impact the overall safety and survival for the citizens in the Loveland community. Each program has a varying degree of impact on the CSD staff (and the Operations staff) based on the community and organizational needs. Annually, the division evaluates each of the programs and their effectiveness and measures their outcomes to ensure they continue to be effective and are in alignment with the overall mission of LFRA; the needs for each program are also assessed annually. Each program will be reviewed below, explaining what the program is, how it operates with the CSD, what current needs exist, and what needs are projected for the future. The random order in which these programs or areas are described is not an indicator of importance.

PLAN REVIEWS/PERMITS

Loveland Fire Rescue Authority enforces fire and building codes and national fire-protection standards in three governmental jurisdictions: the City of Loveland, Town of Johnstown, and unincorporated Larimer County. The CSD collaborates on a daily basis with building owners, developers, and contractors (the "external customers"), as well as plan reviewers and inspectors from these jurisdictions. The CSD staff strives to ensure new development is functional, attractive, cost effective, and above all, safe for citizens, visitors, and emergency personnel.

Providing accurate, consistent, and timely plan reviews and new construction inspections is CSD's opportunity to "get it right from the beginning" when a building or tenant space initially opens for business. When buildings comply with life safety requirements at the time the structure first opens its doors, they become safer for occupants and firefighters. This compliance sets a positive direction for successive safety assessments by LFRA engine companies and higher-level inspections by the Fire Inspection Technicians (FITs) and other CSD members.

Since the previous strategic plan was implemented, the economic upturn has resulted in a significant increase in commercial and residential development in the LFRA jurisdiction. A full-time plan reviewer position was added in 2013 and a full-time inspector position was added in 2016, not only to keep up with development but also to ensure safer buildings and safer emergency responses for firefighters. In most instances CSD has managed to complete reviews within the specified turnaround times, but not without negative workload and overtime work for staff. CSD anticipates the development workload will continue to increase or remain steady. In addition to the typical tenant finishes in existing buildings, numerous large commercial and residential developments are in the planning stages: The Foundry, The Brands, Brands West, Johnstown Plaza "2534" area, The Lakes at Centerra, Railway Flats (Parcel 504), Citizen Hahn (Parcel 506), 71st Street/County Road 30, and the State Highway 402 area (which corresponds with the widening of Interstate 25 in northern Colorado).

The Loveland downtown area has become a life-safety priority. A majority of the buildings are older – many approaching a century in age – and are not protected by fixed fire-protection systems. In the past three years, the Historic Lincoln Hotel has been retrofitted with automatic sprinklers, and redevelopment projects have seen the installation of fire sprinklers in large structures in Gallery Flats and the Arcadia. Downtown life-safety initiatives will increase in priority as further redevelopment is anticipated to follow The Foundry project.

Staff will work with stakeholders in the building industry and fire departments from multiple agencies to adopt the 2018 I-Codes. Seeing the many significant advantages of residential fire sprinklers, CSD will collaborate with public and private partners to attempt to incentivize the installation of fire sprinklers in all new single-family homes. While such installation has been required in the International Residential Code (IRC) since 2009, most communities, including Loveland, have amended it out of the IRC. (Sprinklers have been allowed as an alternative to emergency vehicle access and firefighting water supply since the 1970s.)

For many years the organization has collected and continues to collect data related to emergency response, inspections, plan reviews, investigations, public education, and emergency management. These data are used to assess compliance with the current strategic plan and to create the next strategic plan, using numbers to set program goals, staffing, and budgeting for the future.

While the organization maintains statistics for community safety and risk reduction programs, it could use the monthly and annual statistics on a more frequent basis in order to set goals and strategies related to emergency response, loss benchmarks, inspections, and plan reviews.

CSD personnel will continue development of a new program to track NFPA 25 inspections (Inspection, Testing and Maintenance of water-based fire protection systems) and will expand construction development information on the LFRA website. The ability to track fire protection system inspections in existing buildings will ensure owners are meeting national standards for life safety inspections for existing buildings with water based fixed fire protection systems.

The fire department maintains close partnerships with the multiple water districts as a result of regular interaction through planned quarterly meetings and the development review process. LFRA will continue to strengthen these relationships to meet anticipated construction development and population growth in the next 10-20 years.

The current CSD staff is having difficulty keeping pace with the growth that is occurring within the Loveland community. However, it is likely that additional plan reviewers and field inspectors will be needed as the number of businesses and commercial developments escalate. The Loveland area's population is currently growing at a rate of approximately 2-2.5% per year; many forecasters are predicting a continuance of this growth into the next decade. CSD will be challenged to keep pace with this level of growth with the current staffing levels.

Another concern for the future is workspace in the Development Center at 410 East 5th Street. Currently, the Development Center is nearly at full capacity for workspace. The area at the Center on the second floor, occupied by CSD and fire administration, may be the only viable space for future expansion for the City planning and building departments. In the future the CSD and perhaps all of fire administration may need to find new facilities and workspaces. Fire Station One is also located in this building; Station One is likely to remain in its current location because of its strategic location to the downtown area and the costs for relocating. However, future long-term planning should include contingency strategies for office expansion and relocation of the fire administrative offices and CSD if the planning and building departments expand.

COMMUNITY OUTREACH

Community outreach programs have historically been a part of the fire service, with fire prevention bureaus usually delivering these programs. Most, if not all, fire related, community outreach programs have a direct impact on disadvantaged community members that do not have the resources or the knowledge to recognize their vulnerability, or those that may not be able to help themselves. Three distinct community outreach programs have been focal points for the CSD within the Loveland community:

- Youth fire setters
- Child car seat installation
- Smoke/carbon monoxide detector giveaway.

Youth Fire Setter Program

Youth fire setting has been identified as one of the fastest growing fire threats in the United States. Annual statistics show that fires set by children kill more than 80 people, injure nearly 1000, and destroy nearly $250 million dollars in property each year. Nearly half of the victims in these fires are the children themselves. Understanding what circumstances lead children to start fires and following a few basic fire safety practices can reduce the chances of children starting destructive fires. Curiosity about fire is part of a child's growth process, especially between the ages of two and nine. The majority of fires set by young children are set out of curiosity or experimentation. The CSD offers education, training, and counseling as part of the youth fire setters program. These services are offered to the individual youth fire setter and sometimes to the entire family when appropriate. The CSD has members specially trained in this discipline and has access to other outside sources for cases needing a greater depth of counseling or more professional services or assistance.

Child Car Seat Installation

The child car seat installation program has been a part of LFRA for many years. The CSD has been the division directly responsible for managing the program and utilizing personnel to assist families in the community to ensure that children are protected by properly installed car seats. According to the National Highway Traffic Safety Administration (NHTSA), three out of four car seats are improperly installed. LFRA has trained car seat technicians who are available to the community to properly install car seats at no charge. Although it is difficult to track data (locally) for car seat installation and the numbers of infants and children saved from injury, it is presumed that this program is making a difference in community safety. National data and information supports this premise, and based on the number of requests for services, there seems to be a demonstrated need. Historically, LFRA, under the supervision of the CSD, is installing on average over 150 car seats annually, mostly for parents of infants and young children who did not feel able to do this for themselves. Car seat installation is one of the outreach programs that will likely change in the future because of technology.

First, car seats have become easier to use and install (2017 article by AAA). However, it is also reported that three out of four car seats are still improperly installed. This data would suggest that the current model of finding “trained professionals” to install car seats may not be the best method. After more than 20 years of firefighters assisting citizens with installations, the number of improperly installed seats has remained about the same; changes in the program and how it is operated are needed.

There are now numerous on-line videos and help for parents to “walk them though” proper car seat installation. HelpLightning, a mobile application (phone app) that offers a virtual interactive presence permitting both verbal and interactive (telestration) visual communication, and the manufacturer's user manual, are available for consumers to assist them with installing their car seats. These efforts should change the unacceptable level of car seats being installed improperly. The technology side of this issue will likely play a significant role in simplifying the installation process and provide more help to ensure proper installation by parents. Another associated factor suggesting change is the generations that are most in need of car seats for their children are also the most technology savvy generations to date. Most of these younger parents have no issues with downloading an “app” for their phone or device to be able to learn how to properly install the car seat.

The car seat installation program will probably change in the future. CSD will likely still have a role in this program for years to come. However, the CSD staff will need to monitor changes and trends and react with assistance, support, or guidance as needed.

Smoke/Carbon Monoxide Detector Giveaway

For more than four decades, research has proven that smoke detectors and carbon monoxide detectors save lives. The American fire service and Loveland's CSD offer free smoke detectors and carbon monoxide detectors to citizens who can't afford them or who request them. Smoke detectors have been around since the 1970s. Many studies have shown that working smoke detectors can reduce the chances of citizens dying in a house fire by 50%! They literally save lives every year. These devices are easy to install and take almost no maintenance except to change out their batteries twice a year. They are a proven commodity to assist in saving lives and property through early detection.

Carbon monoxide detectors, on the other hand, have only been around since 1993, and like smoke detectors, can be lifesavers. These detectors protect from carbon monoxide (CO), a poisonous gas that's also colorless, odorless, and deadly. This poisonous gas is produced by the incomplete burning of fuels like coal, wood, charcoal, oil, kerosene, propane, and natural gas. Like smoke detectors, CO detectors require very little maintenance to keep them operational.

One of CSD's primary goals is to ensure that every home in our community has working smoke detectors. LFRA offers smoke detectors, carbon monoxide detectors, and battery replacement for detectors at no cost to community members that cannot purchase these items on their own. LFRA crews will respond to provide and/or install smoke or CO detectors or assist with dead battery replacement. Donations are used to supplement and support this community outreach program for LFRA.

The smoke detector and carbon monoxide detector program has been very successful over the past years and is functioning well today. The program will need to be monitored for financial viability and effectiveness for on-duty crews responding to calls for assistance and the community education portion of the program. More use of technology and social media may be an answer for future sustainability of this program.

PUBLIC EDUCATION/INFORMATION

For over 100 years, the fire service has educated the public on fire safety and informed them of pertinent information related to community emergencies or calamities. In the Loveland community, that responsibility belongs primarily to the CSD. These two areas are primarily divided into Public Education and Public Information.

Public Education

Various community safety programs fall under the umbrella of "public education." One of the most successful educational programs ever implemented in the fire service is delivering the fire safety message to the students at the elementary school level. Statistically these individuals are identified in the high-risk category for potential injuries, but also the most impressionable age group to understand the risk of fires and other related safety concerns. LFRA has developed a robust public education program that not only targets fire related educational messages, but also includes an emergency preparedness element that provides a more in-depth understanding of manmade or natural emergencies that could impact the citizens in our community. The Public

Education program works in unison with several other allied organizations to maintain a collaborative and cooperative approach in the education of our community members.

Other areas of outreach within the public education field will evolve for the Loveland community in the coming years. The community will likely need more, or different, programs that are adaptive to the community demographics and changes brought about by a growing, diverse population. One of those areas will likely concern the ever-growing challenges for apartment-safe living. Loveland has experienced a tremendous growth in the number of apartment complexes within the community and a sizeable growth in the number of people living in these apartments. Most of these newer occupancies are 3-4 stories, some with garden levels, and nearly all are made from Type V or combustible wood-frame construction. Both national and regional trends show an abnormally high number of fires and civilian injuries and deaths occurring in these types of occupancies. A cogent public education effort within LFRA through the CSD for these types of occupancies will be needed to reduce the numbers of fires and civilian injuries occurring in apartment complexes.

Public Information

Keeping the public informed from a life safety or an educational perspective is a challenging role that has been assigned to the CSD. This role has been made ever more difficult in a high-technology world.

With the advent of social media, texting, tweeting and cameras on every cell phone, along with the ability to shoot, store, and transmit videos of the latest breaking news, the expectation from the public is to deliver information as rapidly as it becomes available. This has had a dramatic effect on LFRA's ability to report accurate information in a timely and effective manner. Many times unconfirmed information is being distributed to the media or to other related media outlets. Consequently, false information is being shared, which then leads to additional time spent to correct or dispel inaccurate information. This can be increasingly challenging when property or lives have been lost. The Public Information Officer is a critical position that can be extremely beneficial for distributing educational information to the community. Other benefits include: maintaining updated website information, recruiting volunteers, and addressing current concerns such as burn restrictions, home safety tips, etc. The CSD will need to maintain vigilance in this area of public information and make a concerted effort to stay current on the rapidly changing world of social media.

One area that may need to be monitored and pursued even further is the use of social media for education. Social media has proven to be very effective in public information dissemination and will likely be equally as effective as a public education tool. LFRA will need to investigate what other successful agencies are doing in this area and adopt effective and practical ideas for the Loveland community.

The organizational needs for the areas of public safety education and public information are apparent now. LFRA is utilizing several sources for education and information. While this is currently working, much more can be done to improve. CSD should look at and flesh out the needs and available funding for a public education and information specialist. Other fire service agencies in the area have opted for this model and have seen success in their efforts. What may work best for the CSD (and LFRA) is a civilian specialist position for both public safety information and education.

CODE ENFORCEMENT/BUILDING INSPECTIONS

The inspection program and the code enforcement process are important parts of the department's mission of ensuring a fire-safe community. The Code Enforcement/Inspection program consists of three primary areas:

- Fire company business safety visits and surveys
- Fire inspectors business inspections
- Specific fire safety complaints or code violation follow-up.

Fire companies within LFRA conduct periodic business safety visits; the majority of these businesses are small retail stores and smaller commercial outlets. The purpose of this program is to have firefighters assist business owners/occupants to ensure that their businesses are following fire safe practices and help eliminate or reduce anything that could cause a fire in the business. These visits are intended to build relationships or community partnerships and to help ensure the business does not go out of business because of an accidental fire. On-duty fire companies, with the support of the CSD staff, manage and operate this program with shift resources.

CSD staff regularly conducts business fire inspections on occupancies that typically are more complex in size or nature and require specialized code enforcement skills. These visits are compliance-based inspections rather than the simpler safety visit conducted by the fire companies. These inspections are typically done with CSD inspectors or a shift fire inspection technician (FIT).

Specific safety complaints or code violations are assigned to Fire Inspection Technicians or specific CSD fire inspectors. These complaints or requests can come from the public, other city employees, or from fire companies that are on a business safety visit. The integration of these three processes makes up the majority of the code enforcement duties within CSD.

Approximately 20% of all fires occur in commercial or business occupancies. These by far are the most expensive fires on a per capita basis. Historical records suggest the majority of businesses that have a serious fire never reopen after that fire, often creating serious economic consequences to communities and families. Thus, a more proactive approach in inspections and code enforcement is warranted. LFRA has chosen to focus mainly on inspection/enforcement programs with an emphasis on community fire safety education and collaborative partnerships to address the fire and life safety issues. Studies have shown that operating with a customer service approach, at the fire company level, rather than a regulatory enforcement approach results in improved fire safety in business and commercial occupancies and better overall relationships between the business owner and fire officials.

The code enforcement and building inspection program is currently operating well and effectively within LFRA. As the Loveland community expands, it may take more resources to continue these programs at the same level. The CSD will need to monitor the effectiveness and sustainability of these vital programs over the next several years.

FIRE INVESTIGATIONS

The CSD has the overall responsibility for fire investigations and capturing the findings within various reports. Fire investigations are conducted on a hierarchy of scale. Many smaller and simpler fires can be investigated by a company officer on an engine or truck company. A more complex scene may need the assistance and expertise of the shift FIT. The next level of the scale

may require a CSD fire inspector or investigator. More times than not on larger, more complex fires, there will be a lead investigator and a team working together. On even more complex fires or emergency scenes where a crime is suspected, law enforcement or members from other state or federal agencies may be involved.

CSD currently needs more training for its investigators and needs more FIT level investigators to assist the overall CSD team. Another long-term need for CSD is to be a part of a regional team of fire investigators that assist each other on larger, more complex investigations, allowing calls for assistance to be made within the framework of automatic aid or mutual aid agreements. While these types of fires do not occur often, when they do, the workload and commitment of personnel can be draining on the division. A regional investigation team could help with the workload created by larger, more complex fires and their investigation.

EMERGENCY MANAGEMENT

In 2005 Emergency Management in Loveland was officially established as a full-time program with dedicated staff; the staff was made up of one or two fire department officers, essentially on loan to the City of Loveland. This program had formerly operated as an independent division within the fire department, but became an active part of the CSD in 2010 during the fire prevention reorganization. This relationship makes a great deal of sense in the perspective of achieving overall community safety and preparedness because Fire Prevention and Emergency Management had the same mission: *reduce injury and loss through safety and preparedness*. The Emergency Management program was developed after numerous large-scale incidents and emergencies impacted the Loveland community. Many lessons were learned over the years that shaped the program into what it is today. In addition, these same community-wide emergencies helped to develop functional, operational relationships with other surrounding cities and counties.

The Emergency Management Program serves the City of Loveland, its community members, and the businesses within the LFRA response district. The current program was developed by employing the lessons learned from disaster events as well as embracing theory developed from research in anthropology, geomorphology, and climatology. The program's priorities and ideology model the findings from these areas of research.

The program is obligated by laws, mandates, and local ordinances, which define the responsibilities for interagency coordination, cooperation, and planning. Stakeholders such as the school district and hospitals and with non-governmental organizations are involved before, during, and after an emergency or disaster. The program staff have a variety of responsibilities and tasks that include the development of preparedness and emergency plans, public outreach, facilitation of an Emergency Operations Center, the delivery of training and the conducting of exercises, and the on-going resolution of related issues and projects.

The program uses an all-hazards approach for all phases of emergency management planning (preparedness, response, recovery, and mitigation) to meet the expanding needs of the community. The program must identify potential threats, hazards, and vulnerabilities that challenge the community and the city. Limited resources and planning efforts focus on addressing the identified local risks and vulnerabilities to the specific hazards that can actually occur here. This allows planning resources to be dedicated to those risks and vulnerabilities that are the most likely to adversely affect the community. The program's focus in community

preparedness is to educate the public and the City of Loveland organization in becoming more self-sufficient, thereby developing a community that is more disaster resistant and can more quickly recover from a disruptive incident.

In the last five years, the program went through a significant redesign. The major changes included a reassessment of priorities; the creation of new goals and strategies; the reassignment of project work; the occasional hiring of temporary, grant-funded staff; and working toward the alignment with occupational best practices as defined by the Emergency Management Assessment Program standards (EMAP). Three important areas of focus of the redesign were the establishment of clear mission and vision statements and defining the organization's "ethos" or character and essence of what Loveland's Emergency Management program represents. These three are listed below.

Vision Statement - The City of Loveland Office of Emergency Management seeks to cultivate a safer, less vulnerable community that has the local capacity to effectively cope with hazards and disasters.

Mission Statement - To safeguard our community by coordinating and integrating the activities necessary to mitigate against, prepare for, respond to, and recover from threatened or actual disasters.

Ethos - "Self-sufficiency IS emergency preparedness."

Program Goals

- *To prepare the city organization and LFRA to manage and survive emergencies and disasters more effectively through planning, training, and exercises*
- *To cultivate an emergency-resilient community by educating it to be self-reliant (see Ethos)*
- *To streamline policies, procedures, systems, and processes where and when possible*
- *To manage large-scale events with upward-trending effectiveness*
- *To be proactive, agile, and flexible for the benefit of the near term*
- *To be long-term minded in all efforts for the benefit of the broader future*

Staffing, Capital, and Expenses

The current program has one FTE (captain's position with LFRA); CSD "loans" a significant portion of another FTE for maintaining LFRA social media, delivering business continuity and emergency planning, and other Emergency Management (EM) duties as assigned.

The program's assets and capital replacement schedule is recorded within the document *Grant Funded EM Asset Tracking* and is maintained by the LFRA finance personnel. Most of the entries are for equipment that do have an end of life and will need to be replaced.

The program's annual budget is prepared and based on the financial needs of projects and programs, salaries and benefits, training and exercises, employee development, office equipment, Emergency Operations Center maintenance and operation, and communications. Other grant funding opportunities make possible the purchases and contracts that are not outlined within the base budget.

Challenges/ Needs

With regard to achieving programmatic goals, progress is protracted or indefinitely paused in the following areas: (1) planning, (2) training and exercises, (3) mitigation projects, (4) capital improvements, (5) and operations.

1. Planning: The research, development, and vetting of emergency plans is a time-consuming endeavor, and it requires a significant amount of face time with planning partners. One FTE should be dedicated to the purpose of writing plans along with other duties as assigned.
2. Training and Exercises: The program is currently conducting training and exercises on a limited scale. Based on the feedback from multiple real-world incidents, citywide expectations for this area not being met. One FTE should be dedicated to develop and deliver citywide training and exercises along with other EM duties as assigned.

   In the past, the Emergency Management Program Grant (EMPG) funded most of the costs for employee development training. In the President's proposed 2018 Federal budget, the EMPG is not funded. Consequently, this situation will cause us to add these on-going costs to our annual budget request.
3. Mitigation Projects: As documented within the Mitigation Master Plan, over 160 individual mitigation projects should be funded and implemented. The main purpose of these projects is to reduce the local hazard risks and to decrease vulnerabilities. These tasks should be financially supported by the City of Loveland and the City Council, at least to the 80% mark.
4. Capital Improvements: Several expensive improvements, if funded, would address important programmatic goals. Some of these projects include the upgrade or migration of the city-operated AM radio station, the building of a regional Emergency Operations Center (EOC), the continued enhancement to emergency warning and notification systems, and the replacement of the Mobile Command Vehicle (MCV) at some point.
5. Operations: On-going costs are associated with the maintenance and operation of equipment and systems located in the EOC, in the MCV, and other EM-related spaces such as the Joint Information Center and the call center. In the past, the Emergency Management Program Grant (EMPG) funded most of these costs. In the President's proposed 2018 Federal budget, the EMPG is not funded. Consequently, this situation will cause us to add these on-going costs to our annual budget request.

The emergency management program has developed into a reliable, professional, and high quality program for the City of Loveland and LFRA. Reviews of the program in the future will evaluate where changes are needed and where the management of the program should be. Having the program under the authority of the City Manager and operating within the fire authority is working. However, within the parameters of continuous improvement, ongoing evaluations are appropriate.

FIRE SERVICE ACCREDITATION

Accreditation in the fire service, simply put, is a continuous improvement plan. It is not an event, but rather a process that demonstrates a fire department's commitment to evaluating risk

in the community and to using data analysis to shape how that organization goes about providing professional services to mitigate risk through both response and prevention. The accreditation process and the strategic plan for a fire department should go hand in hand and work in concert to enhance the overall goal of continuous improvement. Several important terms regarding accreditation include the following:

- *Center for Public Safety Excellence (CPSE)* – The agency that oversees fire accreditation.
- *Commission on Fire Accreditation International (CFAI)* – The governing body that, among other things, reviews all agencies applying for accredited status.
- *Community Risk and Emergency Services Analysis (CRESA*) – A very thorough and all-inclusive risk analysis required by a fire department seeking accreditation.
- *Standard of Cover (SOC)* – Development of goals and data analysis regarding many facets of the fire service, including the number of units and total response time for the department's response area.
- *Fire and Emergency Services Self Evaluation Manual (FESSEM)* – A standardized self-evaluation for fire departments created by the CPSE involving ten specific categories of evaluation. These categories are broken down further into more specific performance indicators and core competencies.

An article written by Robert Rielage for *FireRescue1* magazine, explains the reason fire departments are seeking accreditation: "…accreditation ushers fire departments into an age of professionalism." Accreditation is regarded as the best possible self-assessment process, and it is the recognized industry standard for departments publically demonstrating their commitment to improvement. Currently (2017) there are 235 accredited fire departments internationally. Rielage goes on to say, "Fire agencies are definitely an all-hazard emergency service, and therefore we have to look to organizations such as CFAI to validate that we are delivering what services people expect of us."

Many fire service organizations choose to participate in the accreditation process because of the recognition of excellence the award brings. However, most fire departments pursue accreditation through CFAI for the following four primary, specific, and empirical reasons:

1. It is the best possible assessment process for fire service organizations.
   - *Overseen by a third party*
   - *Data driven*
   - *More complete, covering virtually all of the service areas provided*
2. It is designed to enhance an organization's goals of continuous improvement.
3. It is an ongoing process that includes annual review and reporting and a five-year re-application and re-accreditation process.
4. It is recognized as the industry standard and "best practice" for fire service evaluation.

The journey to accredited status takes over three years. It requires a commitment to creating the required documents (CRESA-SOC and FESSAM) and working with CPSE to demonstrate that the finalized community risk analysis and self-evaluation done by the organization warrants an accredited status from CFAI.

The CPSE works hand in hand with fire departments throughout the accreditation process. They offer classes and mentors to assist organizations. They also assign a four-person peer team to

comprehensively evaluate the overall operations of the department, their records management system, and documentation practices. This peer team conducts a three-day site visit to the fire department and administers a very thorough evaluation. At the end of the visit the team lead will either recommend that the department move to accredited status or list specific changes that need to occur prior to moving on to achieving accredited status. If the recommendation is to move to accredited status, the team lead goes with the fire chief and other selected members of the department to present the department's request and the team's findings in front of the CFAI executive team. Once they receive the accredited status, the department continues the process and goes before the CFAI every five years for reaccreditation. This is the core mechanism for continuous improvement through CPSE.

Loveland Fire Rescue Authority established the foundation for being an accredited fire department in 2009 with the newly established vision of *"going from good to great, and building the organization to last."* The *2012 LFRA Strategic Plan* built upon that vision. This document and the guiding principles it contained set in motion the opportunity to become a data driven department, speaking with facts and seeking the best practices and ways for continuous organizational improvement. In 2014, Fire Chief Mark Miller appointed then Engineer Ty Drage to the role of accreditation manager for LFRA; the goal was to move through the process, ending with a recommendation for accreditation by the site evaluation team. Significant work needed to be done to accomplish this goal; the more significant points included:

- Creation of the CRESA-SOC and FESSAM documents
- Becoming a "registered agency with CPSE (08-13-14)
- Moving to the "applicant status" (02-02-17)
- Assignment of peer assessment team (03-17)
- Evaluation and site visit by peer assessment team (05-7/11-17)
- Recommendation for accreditation with CFAI (07-28-17).

The commission from CFAI voted to award LFRA an accredited status, meeting all of the requirements set forth by the CPSE. With the accredited status, LFRA properly embraces the philosophy of continuous improvement in all aspects of service delivery, and will look ahead to see how best to manage the accreditation program in an ongoing way. The accreditation process is currently managed within the Community Safety Division (CSD); further study will take place to see if this or another division should assume responsibility for accreditation. For the accreditation process to be successful, consideration should be given for an accreditation team. The team concept can ensure succession planning, with several people sharing the knowledge and expertise of the technical writing and data analysis required by CFAI. Looking ahead, accreditation and the philosophy of continuous improvement will serve LFRA well in its goal of enduring greatness.

FUTURE AREAS FOR CONSIDERATION

In addition to the abovementioned areas or programs, there are several key services that the LFRA CSD will need to focus on, devote more time and resources for, and improve in to greater enhance the overall city safety in the city and rural fire district. These include:

- Seniors and fire safety
- Apartment-safe living

- Business sprinkler inspections
- Wildland urban interface code
- Technology

Seniors and Fire Safety

According to the United States Fire Administration, older adults run a risk that is 2.5 times higher of dying in a fire than people in younger age groups. They also suffer a higher number of fire related injuries. Because of these facts and that the Loveland community has a significant elderly population, more needs to be done to assist our elderly citizens in fire safety awareness and education. Several programs already exist that highlight areas for education and provide materials to enhance fire safety to this critical demographic. LFRA will need to make a more concentrated effort to improve services and fire safety education with this population group.

Apartment Safe Living

Every year in the United States over 400 people die in apartment fires, and approximately 4400 people are injured. Many of these deaths could have been prevented if there had been working smoke alarms in the residence. The Loveland community has a relatively high percentage of apartments and multi-family dwellings of the Type V construction variety (wood frame construction). Nationally and regionally these types of occupancies have a higher rate of fire occurrence, and for the multi-story variety, a higher life safety threat to citizens. LFRA will need to make a more concentrated effort for education and training for apartment fire safety and apartment safe living. An excellent program is offered by Tualatin Valley Fire Rescue (Oregon). LFRA should review this life safety outreach as part of the *2018 LFRA Strategic Plan*, and if needed, prioritize this as a future community outreach. Currently, all newly built multi-story apartment complexes require the installation of automatic fire sprinklers. While this code requirement will have a positive, life safety impact in the current and future built environment, some existing apartment complexes are buildings not covered by the newer codes. This issue will need to be evaluated carefully by the CSD staff in the future.

Business Sprinkler Inspections

All fire protection systems must be designed, installed, inspected, tested, and maintained by contractors with an endorsement issued by the fire department (LFRA). The ongoing inspection program of installed fire sprinklers for commercial occupancies ensures that these protection systems are in a ready state at all times and protecting the properties of business owners. Nationally and regionally there are inconsistencies in how often and thoroughly these inspections are carried out. In the Loveland community, private contracting companies do these inspections. Other communities, such as in PFA, utilize fire department personnel for these inspection services. LFRA needs to further evaluate the current inspection system and ensure that the best system for Loveland is in place and that the system is working with the highest level of effectiveness possible.

Wildland Urban Interface Code

The International Wildland Urban Interface Code (WUI) is a model code intended to supplement a jurisdiction’s building and fire codes. The objective of the code is to establish minimum regulations to safeguard life and property from the intrusion of fire from wildland fire exposures and fire exposures from adjacent structures, and to prevent structure fires from spreading to wildland fuels, even in the absence of fire department involvement. The first WUI Code was

produced and approved in 2003; the current code in effect is the 2015 version. Although this WUI Code has not been adopted in Loveland or Larimer County, there are many important aspects of it that should be. LFRA has a wildland urban interface problem and currently most of the efforts are being expended in the response side. LFRA should create a partnership with other regional fire departments and responders to either adopt this code or develop directives from this code to help in the area of risk assessment and risk mitigation.

Technology

Technology is impacting every area of life in America; the fire service, and more specifically the CSD is no exception. However, many technology advancements are currently available that could enhance the performance of LFRA field inspectors and technicians. Integrating technology with fire safety inspections and fire prevention-related work can be seen in new developments with iPads and synchronizable databases, bar coding, and other technology-based services. These innovations can reduce workload through efficiency and greater effectiveness. LFRA should evaluate options that can reduce workload and increase productivity of the CSD staff. Technology may help accomplish this goal, but some growth in the division will be necessary.

CSD Planning Assumptions

CSD Planning Assumption 1 – CSD will likely need more staffing in the future to address a growing population and an ever-increasing workload related to commercial development, plans review, and new inspections.

CSD Planning Assumption 2 - LFRA's role in plan reviews and building review processes is critical to ensure a strong fire-rescue perspective in the review process and a more effective community safety impact in the built environment

CSD Planning Assumption 3 - Specific occupancies within the community will continue to require specialized training and knowledge, skills, and abilities for plan reviews and inspections.

CSD Planning Assumption 4 – The community outreach program is an evolving responsibility that will be impacted by technology, change, and public expectations. Smoke and CO detector programs will likely continue as the most dominant and effective community outreach.

CSD Planning Assumption 5 - The enhancement of training and outreach for emergency management and EOC operations is integral to a total overall community outreach safety plan.

CSD Planning Assumption 6 – Changes/improvements in the area of public education and information will be needed in the future for "at-risk" citizens or areas within the community.

CSD Planning Assumption 7 – Fire service accreditation is and will be a part of LFRA’s future. Management of information and processes to maintain accreditation will be a part of the future for LFRA.

CSD Planning Assumption 8 – The wildland urban interface area will continue to be an area of concern based on population increases and more structures in the WUI. Adoption of the *Wildland Urban Interface Code*, along with increased staffing could address this concern.

IX: ORGANIZATIONAL GOALS, STRATEGIES, TACTICS & KEY PERFORMANCE INDICATORS

This section focuses on establishing and setting organizational goals, strategies, tactics and identifying Key Performance Indicators (KPI) to measure and quantify success. These dimensions will establish the department's overall strategy for achieving success in delivering emergency services in a safe and cost effective manner. This section also includes a more comprehensive list of specific measureable metrics, KPI's that are formatted into easy to read charts for review and expression of the various performance measurements established for the organization. In addition, a pared down version of the service level indicators is listed as the "Significant Seven," which has been used as part of the City of Loveland's performance measurements as requested by past City Managers.

THE ORGANIZATIONAL PRIME DIRECTIVE

Most fire service organizations have at their core a mission or vision statement that establishes what the organization stands for and is committed to. Loveland Fire Rescue Authority is no exception. The organization's mission statement is:

> *Through commitment, compassion and courage, the mission of the Loveland Fire Rescue Authority (LFRA) is to protect life and property.*

From the management side of the continuum of operations, the "prime directive" adapts this mission statement so it connects to the organization's goals, strategies, and service level indicators. That prime directive is:

To protect life and property in a safe and effective manner…

This prime directive will serve as the guiding principle for the organization from a planning and management perspective and serve as a touchstone or guidepost that will serve to maintain organizational focus and direction. In its most simplistic format, it speaks to the issue of *"Citizen Service and Firefighter and Citizen Safety and Survival."*

ORGANIZATIONAL GOALS

Goals, as defined in this section, are essentially a broad, primary outcome. They tend to be long on direction, or outcomes, and short on specifics; in strategic planning, they are about moving forward. Goals change our mindset and direction by changing or redefining the destination. Within the framework of the *2018 LFRA Strategic Plan* we have established our organizational goals around the "Four R's"- *Response, Readiness, Resources and Relationships* (see Figure 9-1). We have also added a fifth goal in to this group; Cost Effectiveness. All five of these goals are expanded on in the later portion of this section- "Charts and the Key Performance Indicators."

Figure 9-1 Four-R's

The specific goals in this portion of the plan clearly address the salient points established within the prime directive- that being, citizen service and firefighter and citizen safety and survival. The five goals are listed below:

1. **Response to Emergencies**-
   Deploy an effective emergency response to minimize loss/damage

2. **Readiness/Preparedness**-
   Prepare for and mitigate/minimize the risk and outcomes of an emergency incident

3. **Resources**-
   Preserve, develop and improve the resources entrusted to LFRA; including vehicles, equipment, facilities and most importantly the human resources

4. **Relationships**-
   Maintain and improve relationships with our staff, strategic partners and professional colleagues

5. **Cost Effectiveness**-
   Deliver cost effective services to the citizens

STRATEGY & TACTICS

Strategies are defined as an approach taken to achieve a specified goal. Another way of describing it is a plan of action designed to achieve a particular goal or set of goals or objectives. Strategy is management's game plan for strengthening the performance of the organization. It really is the “what” we are trying to accomplish.

Tactics are a tool or specific method used in pursuing an objective associated with a particular strategy. Tactics are the actual means used to gain or accomplish an objective; it is the “how” we accomplish things.

KEY PERFORMANCE INDICATORS

A performance indicator or key performance indicator (KPI) is a type of performance measurement. KPIs help evaluate the success of an organization or of a particular activity in which it engages. Within the framework of strategic planning, these KPI’s are an empirical way of evaluating performance and the accomplishment of the various goals, strategies and tactics. Within this particular plan, the KPI’s will be found within the strategies and tactics set forth in the charts below. There are fifteen KPI’s within the *2018 LFRA Strategic Plan*. They are:

- Improve response times
- Achieve and maintain accreditation
- Maintain or improve ISO Public Protection Classification rating
- Increase staffing and number of fire stations for improved emergency response
- Develop leaders and promote leadership
- Prepare ourselves and the community for disasters
- Provide exceptional customer (citizen) service

- Maintain or improve our fire loss levels
- Improve community fire safety and risk reduction
- Utilize technology/innovation to improve response and service levels to the community
- Improve training facilities and training programs to enhance readiness and response
- Improve firefighter health, safety and survival
- Continue to develop our employees through training, education and experience
- Improve capital funding mechanisms and strategies
- Maintain and improve relationships with strategic partners

SIGNIFICANT SEVEN PERFORMANCE MEASUREMENTS

The "Significant Seven" performance measurements were utilized in the *2012 LFRA Strategic Plan.* They were established, in part, because the City of Loveland required the organization to select key performance measurements where overall performance could be measured using metrics associated with the International City/County Management Association (ICMA's) performance measurements. They were also utilized because of their value; they are important dimensions that are recorded to measure and track organizational performance. The Significant Seven are included in the *2018 LFRA Strategic Plan* because of their continuing value and usability as metrics. These seven are:

1. **Response Times:** Times tracked for emergencies within the Urban Response Area
   - *First arriving unit or member with tactical capability*
   - *For structure fires, first arriving engine or truck, then the balance of the assignment*

2. **Costs Per Capita:** Operational cost comparisons
   - *Costs per capita in comparison with other FRFC departments and selected comparison departments within the Rocky Mountain region*

3. **Fire Loss Per Capita:** Total fire loss comparison
   - *Total fire loss per capita in comparison with other FRFC departments and selected comparison departments within the Rocky Mountain region*

4. **Property Value Saved vs. Loss:** Saved/loss comparison relationship
   - *Measured in both residential and commercial occupancies*

5. **Fires Confined to Room of Origin:** Measuring "flashover" ratio
   - *% of the time that fire was confined to room or area of origin, interceding before flashover occurs*

6. **Number of Businesses Inspected/Fire Company Safety Visits:** Efforts in fire prevention
   - *% and number of businesses inspected by the CSD and % and number of businesses receiving a safety visit by a fire company*
   - *Measurement of the number of times personnel are in a business for code enforcement and safety intervention*

7. **Customer (Citizen) Satisfaction:** Public perception measurement
   - *Overall community performance survey as part of the City of Loveland Quality of Life Survey process*
   - *Citizens and businesses actually receiving LFRA services*

Some of the dimensions within the "Significant Seven" are more objective (such as Response Times and Costs per Capita) while others are more subjective (Property Saved vs. Loss). However, all of these dimensions have value in measuring the organization's performance, and in the comparison to other regional departments utilizing these same types of dimensions.

CHARTS AND KEY PERFORMANCE INDICATORS

A chart is a graphic representation of data or information. They are used as a diagrammatical of information; they also convey information in a more easy to understand and efficient manner. *The 2018 LFRA Strategic Plan* utilizes charts in Section IX to relate and connect the various dimensions expressed as part of the overall goals and performance indicators. The information expressed in the following charts include:

- Area of Focus
- Goals
- Expectations
- Organizational Strategies
- Organizational Tactics

There are five major areas covered in the following charts that will serve as a primary source for management to monitor and measure the organization's effectiveness. The five areas are built around LFRA's "Four R's." One additional area has been added that relates to cost effectiveness. The five areas include:

1. Response
2. Readiness/Preparedness
3. Resources
4. Relationships
5. Cost Effectiveness

These five areas make up the categories where the Key Performance Indicators and Significant Seven Performance Measurements are included. They will be monitored, measured and managed through the establishment of the listed goals, organizational strategies and organizational tactics within these five major areas. They will be reflected in LFRA's Annual Report and other reports.

1. RESPONSE

GOAL: DEPLOY AN EFFECTIVE EMERGENCY RESPONSE TO MINIMIZE LOSS/DAMAGE

EXPECTATIONS:

- LFRA Companies will provide prompt and effective emergency service
- Fire Companies will be skilled and competent at the tactical & task levels
- Incident Commanders will demonstrate a high degree of excellence and proficiency at the strategic/tactical level
- All LFRA personnel will be committed to safe, sane & predictable operations
- Our organization will excel in the area of citizen/customer service
- We will stay committed to proven firefighting models that work well and be open to new and innovative methods that are scientifically better and that enhance safety and survival
- All LFRA personnel will be committed to continuous improvement

STRATEGIES		ORGANIZATIONAL TACTICS	
1.1	Effectively deploy appropriate, incident specific resources	1.1.1 1.1.2	Respond with a minimum staffing of 3 firefighters per engine/truck Execute a skilled response to meet organizational protocols and benchmarks in a timely manner
1.2	Improve our response times to emergency calls	1.2.1 1.2.2	Meet or exceed our stated total response time goals Add staffing and fire stations to improve emergency response times and overall performance
1.3	Demonstrate effective deployment	1.3.1 1.3.2	Improve fire loss/property saved ratio and improve fire loss per capita Execute task level operations within LFRA's performance standards
1.4	Improve response performance through traditional and alternate deployment methods	1.4.1 1.4.2	Maintain and improve basic skills (demonstration) Remain current on knowledge, skills and abilities in modern fire behavior tactics and task level operations (fire dynamics)
1.5	Provide exceptional citizen (customer) service	1.5.1 1.5.2 1.5.3 1.5.4	Maintain a culture of "enhanced customer service" throughout LFRA Create clear organizational expectations for what great citizen/ customer service involves Review and respond quickly to all compliments and complaints Maintain a level of 90% or higher in the City of Loveland's *Quality of Life Survey*

2. READINESS/PREPAREDNESS

GOAL: PREPARE FOR AND MITIGATE/MINIMIZE THE RISK AND OUTCOMES OF AN EMERGENCY INCIDENT

EXPECTATIONS:

- Provide high quality plan reviews and new building inspections
- CSD and Operations will work cooperatively to improve fire/life safety risks, and reduce overall community risk
- Target specific fire/life safety risks and develop suitable solutions
- Improve fire safety education and community outreach
- Be prepared to lead, manage and survive disasters in the Loveland community
- Be prepared and trained to effectively manage a wide variety of emergency responses

STRATEGIES		ORGANIZATIONAL TACTICS	
2.1	Improve community fire safety and risk reduction	2.1.1	Maintain/enhance the fire inspection & fire company safety visit programs
		2.1.2	Ensure all applicable fire codes are reviewed/adopted
		2.1.3	Improve CSD records management systems & data entry
		2.1.4	Provide accurate, consistent and timely plan reviews and new construction Inspections
		2.1.5	Sustain adequate staffing levels within CSD for the required workload
2.2	Develop and implement a community risk reduction plan in 3 Specific areas: - Residential Apartments (multi-story) - Business fire sprinklers - Wildland urban-interface area	2.2.1	Create a community apartment safe living education program
		2.2.2	Ensure that business fire sprinklers are inspected regularly
		2.2.3	Improve fire safety conditions in the wildland urban-interface area in the Loveland community
		2.2.4	Investigate the use and implementation of the “Ready-Set-Go” program
2.3	Strengthen the efforts in public fire safety education and community outreach	2.3.1	Evaluate and improve fire safety education to elementary students
		2.3.2	Continue to develop/improve the community smoke detector and carbon monoxide alarm program in the Loveland community

Readiness/Preparedness (cont.)

	2.4	Prepare the city organization and LFRA to effectively manage and survive community disasters	2.4.1 2.4.2 2.4.3 2.4.4	Cultivate an emergency resilient community through education, preparedness and practice Manage large scale emergency events with upward trending effectiveness Conduct large scale community training exercise annually Work with city staff to complete the mitigation projects identified in the Loveland Mitigation Master Plan
	2.5	Accomplish and retain successful 3rd party evaluations of LFRA as an effective fire/rescue organization	2.5.1 2.5.2	Maintain or improve the current Insurance Services Office (ISO) Public Protection Classification (PPC) rating Achieve and maintain accreditation through the Commission on Fire Accreditation International
	2.6	Strengthen LFRA's training efforts in various programs to ensure firefighter and fire officer readiness and preparedness	2.6.1 2.6.2 2.6.3	Maintain and enhance firefighter basic skills for all uniformed personnel that are deployable for firefighting operations Maintain and enhance the Blue Card Hazard Zone Management program for all line fire officers and acting officers Utilize technology to enhance or improve various firefighting training programs
	2.7	Provide exceptional citizen (customer) service	2.7.1 2.7.2 2.7.3 2.7.4	Maintain a culture of customer service throughout the organization Create clear organizational expectations for what great citizen/customer service involves Review and respond quickly to all compliments and complaints Maintain a level of 90% or higher in the City of Loveland's *Quality of Life Survey*

3. RESOURCES

GOAL: PRESERVE, DEVELOP AND IMPROVE THE RESOURCES ENTRUSTED TO LFRA; INCLUDING VEHICLES, EQUIPMENT, FACILITIES AND MOST IMPORTANTLY THE HUMAN RESOURCES

EXPECTATIONS:

- Value people as the reason for our past and future success
- Be good stewards of the resources entrusted to LFRA
- Continue the excellence in apparatus specifications
- Maintain effective equipment and apparatus replacement programs
- Personal and organizational health and wellness are maximized
- Remain committed to proactively address the current and future concerns related to firefighter health and safety
- Plan for expansion in administrative office and CSD expansion and for expansion for emergency management facilities (EOC)

STRATEGIES		ORGANIZATIONAL TACTICS	
3.1	Attract and maintain a highly trained and dedicated workforce reflective of the community we serve	3.1.1 3.1.2 3.1.3 3.1.4	Ensure wages and benefits remain competitive regionally Promote LFRA as a "great" organization to work for Offer a variety of training and promotional opportunities for personnel Evaluate firefighter hiring process (ongoing)
3.2	Continue to develop employees through training, education and experience	3.2.1 3.2.2 3.2.3	Create an effective, sustainable leadership development program Continue a vibrant training and education program for employees Maintain regional relationships and participate in training and educational opportunities offered within region (example FRFC training)
3.3	Improve firefighter health and safety	3.3.1 3.3.2 3.3.3 3.3.4 3.3.5	Stay committed to meeting the intent of NFPA 1500 (standard-FF safety) Reduce FF exposure to carcinogens- "Healthy In, Healthy Out" program Continue to utilize and reinforce the LFRA FF Peer Support Team Continue firefighter fitness program and physicals Maintain adequate staffing levels
3.4	Maintain and improve fire stations, facilities, vehicles and equipment	3.4.1 3.4.2 3.4.3 3.4.4	Build new stations as needed and maintain and improve existing facilities Maintain and continue the apparatus replacement schedule Continue equipment maintenance and replacement schedule Improve training facilities and develop training center master plan
3.5	Plan for future expansion in administrative offices, CSD and other accompanying types of emergency services facilities	3.5.1 3.5.2	Evaluate current and future administrative office needs and the office and workspace needs for CSD Evaluate the need for a new and updated EOC and other support facilities for the City of Loveland Office of Emergency Management

4. RELATIONSHIPS

GOAL: MAINTAIN AND IMPROVE RELATIONSHIPS WITH OUR STAFF, STRATEGIC PARTNERS AND PROFESSIONAL COLLEAGUES

EXPECTATIONS:

- Foster A culture that builds and supports cohesive, high-performing teams
- LFRA will continue to foster and build relationships with a wide variety of external partners who assist in accomplishing the mission of protecting life and property
- Maintain strong and professional relationships with the community members we serve
- Ongoing efforts are made to ensure strong, effective relationships between labor and management
- Continue to foster a strong relationship/partnership between elected officials within the City of Loveland and Rural Fire Protection District

STRATEGIES		ORGANIZATIONAL TACTICS	
4.1	Operate with a “people-first” and “others-centered” focus	4.1.1	Leadership maintains availability and support for our personnel
		4.1.2	Emphasize servant-leadership in training and day-to-day operations
4.2	Build/continue an environment that supports improved employee involvement and relationships	4.2.1	Ensure a high level of organizational responsiveness to personnel’s needs, and maintain an equal concern for organizational needs
		4.2.2	Build collaborative, respectful and sustaining internal relationships at all levels of the organization
4.3	Ensure citizens have high regard for LFRA and that citizen satisfaction remains at a high level	4.3.1	Maintain a level of 90% or higher in the City of Loveland Quality of Life survey
4.4	Sustain and build on the existing relationships with regional strategic partners and elected officials	4.4.1	Continue or improve current automatic/mutual aid agreements
		4.4.2	Carry on the training commitment to regional strategic partners and organizations
		4.4.3	Perpetuate a regional leadership role in the enhancement of relationships between other area fire departments and emergency service providers
		4.4.4	Safeguard a strong and mutually beneficial relationship between elected officials and partners within the City of Loveland and the Loveland Rural Fire Protection District

5. COST-EFFECTIVENESS

GOAL: DELIVER COST-EFFECTIVE SERVICES TO THE CITIZENS

EXPECTATIONS:

- Financial performance management systems are in place and continually refined for better accounting and reporting
- Regular reports are made to elected officials that are concise, clear and accurate
- Managers and program directors operate with sound financial stewardship
- Organizational documents, forms and manuals are reviewed regularly and updated for accuracy and relevancy

STRATEGIES		ORGANIZATIONAL TACTICS	
5.1	Ensure that citizens continue to receive high quality services for their tax dollars	5.1.1	Maintain positioning at or below the mean or average for costs per capita with LFRA's regional, comparison fire departments
		5.1.2	Retain positioning at or below the mean or average for firefighters per 1000 population with LFRA's regional, comparison fire departments
		5.1.3	Utilize the Key Performance Indicators (KPI) and other performance measurements as benchmarks for financial performance
		5.1.4	Safeguard equality in the Revenue Allocation Formula (RAF) for partner (City and Rural) contribution assessment (currently at 82%/18%)
5.2	Identify external organizational evaluation processes that can validate sound business and management practices for LFRA	5.2.1	Receive the Government Financial Officers Association's (GFOA) certificate of achievement for excellence in financial reporting
		5.2.2	Have a accurate annual audit that is acceptable to the LFRA Board
5.3	Improve the long-term capital funding mechanisms for the Fire Authority	5.3.1	Create a new impact fee model for the City of Loveland and the governing bodies within the Loveland Rural Fire Protection District

X: RECOMMENDATIONS/IMPLEMENTATION

This section of the strategic plan focuses on recommendations for implementation. The section is broken out into two distinct segments. The first segment is identified as "Strategic Plan Priorities" for LFRA; the second segment is identified as "Other Organizational Needs." Both of these segments focus on the operational period of the plan (2018-2026) with a few exceptions. The categorization for implementation of the plan priorities is based primarily on the elements listed in the *Essential Services Expansion Pla*n (see page 105) and the *Future Priorities* (see page 109). Within the listed plan priorities, there are three subcategories:

- High Priority
- Intermediate Priority
- Future Priorities

High Priorities: Elements in either Phase 1 or Phase 2 of the plan (2018-2023) that relate to the addition of needed personnel or high priority capital items.

Intermediate Priorities: Elements in Phase 3 of the plan (2024-2026) that relate to the addition of needed personnel or intermediate priority capital items.

Future Priorities: These are additional capital and personnel priorities that have no specific timeline set for their completion of implementation and most have no funding stream identified. Cost estimates may be lacking for some of these items due to the uncertainty of an implementation date or other information that is lacking for an accurate cost assessment.

In the accompanying chart for the Essential Services Expansion Plan (ESEP on page 105) the two highest levels of priorities are color coded with each element listed in the appropriate phase of the plan. With just a few exceptions the levels of priorities are linked to the phases of implementation.

Beyond the first two levels of the Strategic Plan Priorities, several other system priorities are listed. The other elements in this next segment (Other Organizational Needs) are listed in the proposed order of priority, with no recommended timeline for any of these elements. Another distinction for this section and the needs listed is in their funding. The first two priority levels listed in the first segment of this section have identified funding streams (except for the proposed Quick Response Vehicle) and are a part of the future budget for LFRA; they will be funded by the source listed in the right column (Source) of the ESEP chart (see page 105). The future priority level and the other system needs elements could be described as "unfunded priorities" for the organization. These elements will have to be funded by alternate sources such as additional organizational contribution funding (RAF), grants or other ancillary funding sources.

As with each section of this strategic plan, the recommendations must always be evaluated and re-evaluated over the operational timelines for the plan. Changes could occur in the prioritization of some of the elements based on changes from the stated planning assumptions. In addition, funding streams could change over time and alternate funding such as grant money could become available favoring the funding of one departmental need over another.

Essential Services Expansion Plan-***Revised***

Plan on a Page

PHASE 1: 2018 – 2020 (High Priority)	YEAR	COST	SOURCE
Training Center- Burn Building	2018	2,641,228	City TABOR/Fire Capital Exp. Fees
Build New Station 7 & Apparatus	2018	4,649,914	LFRA Financing
Replace Fire Engine E-3/ #0156	2020	598,005	LFRA Fleet Replace Fund
Total Capital $ Increase Phase 1		**$7,889,147**	(moved QRV capital)
Inspector for Community Safety Division (CSD)	2018	74,500	City/Rural Annual Contributions
Station 7 (staffing, facilities, and vehicle maintenance and annual replacement savings)	2019	1,418,520	City/Rural Annual Contributions
Total Operational $ for Phase 1		**$1,493,020**	(moved QRV O&M)

PHASE 2: 2021 – 2023 *(High Priority)*	YEAR	COST	SOURCE
Station 10 Design	2021	409,236	LFRA Financing
Replace Fire Engine E-7/#0109	2021	599,881	LFRA Fleet Replace Fund
Station 10 Construction	2022	4,895,830	LFRA Financing
Replace Fire Engine E-2/#0110	2023	603,567	LFRA Fleet Replace Fund
Replace Rescue 6/#0352	2023	723,071	LFRA Fleet Replace Fund
Total Capital $ Increase Phase 2		**$7,231,585**	
Add 3 FF positions for Heavy Rescue 2	2021	230,000	City/Rural Annual Contribution
Station 10 (staffing, facilities, and vehicle maintenance and annual replacement savings)	2023	1,398,725	City/Rural Annual Contributions
Total Operational $ for Phase 2		**$1,628,725**	(Sub BC's Add FF's)

PHASE 3: 2024-2026 *(Intermediate Priority)*	YEAR	COST	SOURCE
Remodel Station 5	2024	1,976,850	City Bond-Sales Tax
Replace Ladder 6/#0202	2024	1,406,282	LFRA Fleet Replace Fund
Add Quick Response Vehicle (QRV) Company	**2025**	**381,598**	LFRA Fleet Fund
Remodel/Replace Station 3	2025	3,612,413	City Bond-Sales Tax
Replace Fire Engine 5/#0111	2025	736,854	LFRA Fleet Replace Fund
Total Capital $ Increase Phase 3		**$8,113,997**	(add QRV Capital)
Add 3 Shift Battalion Positions (East Battalion)	**2024**	**518,400**	City/Rural Annual Contributions
QRV Company Staffing	**2025**	**828,423**	City/Rural Annual Contributions
Total Operational $ for Phase 3		**$1,346,823**	(add BC & QRV staff)

STRATEGIC PLAN PRIORITIES

High Priorities Phase 1

Construction of New Fire Station Seven and Apparatus: The construction of a new Fire Station Seven will address the need for improved fire-rescue services in the west side of the Loveland Rural Fire Protection District. This station will also greatly improve response times into an area that is outside of our targeted emergency response goals; an important part of LFRA's efforts in continuous improvement cited by the 2017 accreditation assessment. The station is planned for a single engine company station with three vehicles housed; two vehicles will specialize in addressing the wildland urban interface area in the west side of the district. Capital costs for this expansion are estimated at $4,649,914 and will be funded by a combination of City Capital Expansion Fees (CEFs) and LFRA financing. Construction is planned for 2018.

Staffing for New Fire Station 7: This item addresses the full-time staffing needed to operate new fire station seven. Costs include staffing, facilities and vehicle maintenance and annual replacement savings. Staffing needs include 3 Lieutenants, 3 Engineers, and 6 Firefighters (3 firefighters are added to this expansion for coverage and "rovers" in the system). These positons cover vacancies for various leaves including vacation, sick leave and other assigned leave for shift firefighters. Total costs for this expansion is $1,418,520 and is covered by the City/Rural annual contributions. New station seven is expected to be fully operational and staffed in 2019.

Training Center Burn Building: An architectural training campus master plan and burn building design were begun in 2017. Phase 1 of this expansion plan includes the new burn building. The burn building's costs are based on a design for a three story integral tower, garden apartment scenario training mock-up, center hallway applications, enclosed stairways and a facility for master stream operations. Capital costs for construction are estimated to be at $2.3 million with an additional $340,000 added for needed site enhancements, bringing the total capital costs for the project to approximately $2,640,000. Initial operating costs are expected to be absorbed into existing appropriation levels. Construction is scheduled to begin in 2018.

Add Inspector for Community Safety Division (CSD): In 2009 the Fire Prevention Bureau (now CSD) lost half of its staff due to a city-wide effort to reduce staff and spending. Several fire prevention-related services were reduced during these times of budget reduction and reorganization. From 2009 to 2017, the total permits submitted to CSD has risen over 200% annually; workload levels have increased commensurately with nearly the same staffing levels in 2009. This Inspector's position is intended to restore needed personnel to the CSD for prevention related functions, primarily providing the necessary staffing for improving inspection services. Estimated full-cost budgeting expenses are $ 74,500 annually beginning in 2018.

Replace Fire Engine #0156-Smeal/Spartan: A new fire engine will be built and delivered as part of the LFRA Capital Equipment Replacement fund. In 2020 Engine #0156 would have reached the end of its life cycle as an active fire engine for LFRA. This engine is part of the long-term replacement plan and is scheduled to be assigned to Fire Station 2. Capital costs are estimated at $598,005. Engine delivery is expected in 2020.

High Priorities Phase 2

Replace Fire Engine #0109- SVI Spartan Gladiator: A new fire engine will be built and delivered as part of the LFRA Capital Equipment Replacement fund. In 2021 Engine #0109 would have reached the end of its life cycle as an active fire engine for LFRA. This engine is part of the long-term replacement plan and is scheduled to be assigned as a new front line engine. Capital costs are estimated at $599,881. Engine delivery is expected in 2021.

Architectural and Design for New Fire Station 10: This item is for architectural and design costs for a new fire station in the east part of the City of Loveland. The construction project will include a single engine company, a shift battalion chief, space for ancillary fire apparatus and design for a new fire museum. Total costs are estimated at $409,236 with funding from LFRA financing. Design is scheduled to begin in 2021.

Construction of New Fire Station 10 and Apparatus: This new fire station will be located east of Centerra Parkway, near the area of Kendall Parkway and Sky Pond Drive. This is one of the fastest growing areas in the LFRA response district, with a burgeoning call load that is mostly outside of our targeted response time goals. Construction costs are planned for a single engine company, a shift battalion chief and additional space for specialized fire apparatus. Costs for the fire museum are not included in these estimates. Total costs are for construction, apparatus/equipment and 1% for the arts; for a total of $4,895,830, which will be funded through LFRA financing. Construction is planned for 2022.

Staffing for New Fire Station 10: This item addresses the full-time staffing needed to operate new Fire Station 10. Costs include staffing, facilities and vehicle maintenance and annual replacement savings. Staffing needs include 3 Lieutenants, 3 Engineers, and 3 Firefighters. The total O&M costs for this expansion is $1,398,725 and is covered by the City/Rural annual contributions. New Station 10 is expected to be fully operational and staffed in 2023.

Replace Fire Engine #0110- Crimson/Spartan: A new fire engine will be built and delivered as part of the LFRA Capital Equipment Replacement fund. In 2023 Engine #0110 would have reached the end of its life cycle as an active fire engine for LFRA. This engine is part of the long-term replacement plan and is scheduled to be assigned as a new front line engine. Capital costs are estimated at $603,567. Engine delivery is expected in 2023.

Replace Rescue Squad 6 #0352- SVI/Spartan: A new rescue squad will be built and delivered as part of the LFRA Capital Equipment Replacement fund. In 2023 Rescue Squad #0362 would have reached the end of its life cycle after twenty years of service as a front line apparatus. This Squad is part of the long-term replacement plan and is scheduled to be assigned as a new front line Heavy Rescue. Capital costs are estimated at $723,071. Delivery is expected in 2023.

Addition of 3rd Full-Time Firefighter to Heavy Rescue 2: Since its addition to LFRA's fleet in 2014, Heavy Rescue 2 has operated with two full-time firefighting personnel and the shift Fire Inspection Technician (FIT). While the shift staffing for this unit is listed at three, much of the time it operates as a two-person company; this is mostly due to the added inspection and prevention related duties of the FIT. Firefighter safety concerns and company efficiency are the primary reasons for this item as a Phase 2 High Priority item. Total full-cost budgeting for the

addition of three firefighters are estimated at $230,000, with funding coming from City/Rural annual contributions. Plans for this expansion of staff for the Heavy Rescue Squad are in Phase 2 sometime in 2021-2023.

Intermediate Priorities Phase 3

Add Three Shift Battalion Chiefs for New East Battalion: This addition addresses the need for three additional battalion chiefs- establishing a second battalion for LFRA. These BCs will share the duties of shift management and are a part of the overall shift command team and incident commanders for larger emergency incidents. Span-of-control is a major factor in fire departments needing to add battalions; LFRA will need a second battalion in 2024. O&M costs are estimated at $518,000; funding will come from City/Rural annual contributions.

Remodel of Fire Station 5: Fire station five at 251 Knobcone Drive has a number of significant deficiencies that has a negative impact on operations and quality of service. These include: undersized functional living areas, undersized area for apparatus and what needs to reside there, lack of space for adequate exercise facility and lack of space for equipment maintenance. There are also noted deficiencies with mechanical, IT and electrical systems. The station's remodeling costs are estimated at $1,976,850, which is planned to come from City-Bond Sales Tax funding. The remodel is expected to take place in 2024.

Replace Ladder 6 #0202-Smeal/HME: A new ladder truck will be built and delivered as part of the City of LFRA Capital Equipment Replacement fund. In 2024 Ladder Truck #0202 would have reached the end of its life cycle after twenty-three years of service as a front line apparatus. This ladder truck is part of the long-term replacement plan and is scheduled to be assigned as a new front line Ladder Truck. Capital costs are estimated at $1,406,282. Delivery expected: 2024.

Add Quick Response Vehicle/ Company: The Quick Response Vehicle (QRV) concept is in use by many fire departments nationally and regionally. The QRV is a smaller fire response vehicle (similar to a Type 6 Engine in appearance) that can be equipped to handle most single engine response calls that a full-sized engine would respond to. The need for these smaller, more manageable vehicles is mostly driven by extensive call loads and alternate tactical and task level needs on the emergency scene. The full cost budgeting for the QRV, capital and staffing costs are listed at $1,210,021; there is no identified funding stream. 2025 is the target for the QRV.

Remodel Fire Station 3: Fire station three at 900 S Wilson Ave. has a number of significant deficiencies that has a negative impact on operations and quality of service. The station was built in 1979 and sized for two on-duty career staff. The station has undersized functional living areas, including dorms, restrooms and locker space. It also lacks sufficient dorm and restroom facilities for gender privacy and lacks space for adequate exercise facilities and lacks space for equipment maintenance. The station remodeling costs are estimated at $3,612,413, which is to come from City-Bond Sales Tax funding. The remodel is expected to take place in 2025.

Replace Fire Engine #0111- Pierce/Quantum: A new fire engine will be built and delivered as part of the LFRA Capital Equipment Replacement fund. In 2025 Engine #0111 would have reached the end of its life cycle as an active fire engine for LFRA. This engine is part of the

long-term replacement plan and is scheduled to be assigned as a new front line engine. Capital costs are estimated at $736,854. Engine delivery is expected in 2025.

OTHER ORGANIZATIONAL NEEDS

Future Priorities

Add Support Battalion Chief Position for Administration: LFRA's administration staffing is in need of reorganizing and shifting of funds to support one full-time forty-hour Battalion Chief's positon. This new position will assist in areas that are of high importance levels, but underserved. These include: Accreditation Manager, Health and Safety, EMS Coordinator, Radio/Communications, IT/GIS, Budget, Special Projects and other ad hoc assignments. Personnel costs for funding can be reassigned from the vacating of the Public Safety Administrative Director's position. However, there will be funding increases for several of these programs.

Technology Improvements: Two primary areas have been identified, within the accreditation process, as areas needing improvement. The station alerting system completion is the highest of these priorities. This system is installed in all of the staffed, career stations, but does not have all of the needed hardware to complete the project. It is estimated that it will take an additional $100,000 to complete this project. The station alerting system will have a direct impact on improving response times for emergency calls. A new records management system was also recommended to help LFRA improve in its record keeping and data management. No funding estimates are available at the time of this writing.

Additional Training Staff: The LFRA training staff of one Battalion Chief and one Lieutenant has reached their maximum capacity. What is needed is an additional training firefighter to assist with training exercises (set-up and clean up) and general labor at the training center. This position was identified as a need in the *2012 LFRA Strategic Plan* but was never funded. A full time administrative positon is also needed to relieve training officers of the task of data entry and record keeping for the battalion. Full-cost budgeting is estimated at $100,000 for both positions.

Part-time/Seasonal Wildland Program Manager: LFRA's wildland urban interface (WUI) area has numerous identified problem areas. This part-time/seasonal program manager could make a significant impact in wildland program management, wildland training, public education/ training and emergency response in the area. This position could also manage a seasonal response team into the WUI for high danger wildland seasons. This resource could also be integral to help with the implementation of the *Ready-Set-Go Program* (RSG). RSG is a program that seeks to develop and improve the dialogue between fire departments and the residents they serve in the WUI. Through education, training and assistance the intent is to help save lives and property for those living in the wildland urban interface areas. There is currently no cost estimates for this item.

Addition of One Information Technologies (IT) Position for LFRA: As LFRA has grown and the maturation of the fire authority has become a reality, the need for a specific, dedicated position for IT service and management has manifested. Currently, LFRA's IT needs are being

provided through the City of Loveland's IT Department. While this has worked in the past, the growth of LFRA has put a strain on the city's ability to continue this service with a high level of customer satisfaction. In addition, LFRA compensates the city for these services. It is believed that hiring an IT specialist is one of the next needed steps for continuous improvement for the organization, and for the continued maturation of the fire authority. No identified cost estimate is available at the time of this writing. A study and cost estimation will need to take place in evaluating the current charges for services being paid to the city, and what the full cost budgeting estimates would be for a dedicated full time IT specialist. Thus, the majority of the costs for this new position are expected to come from existing revenue paid to the city for IT services.

Increased Staffing for Station 4/Airport Stand-By: Fire station four has been operational for airport stand-by coverage with one Fire Engineer since Allegiant Airlines ceased their operations at the airport in 2012. With the future implementation of the new "virtual tower" it is expected that the airport will, once again, be home to at least one major carrier- if not two or three others. This increase in flights and the need for stand-by services for fire-rescue will surpass the current system's capabilities. It is expected that at least two, perhaps more, firefighters will need to be hired to account for the needed crash-fire rescue services for the airlines. At the time of this writing, it is unclear what actual staffing model will be used to address this need, and what the actual staffing levels will be. Thus, no cost estimates are provided at this point in time for said expansion. Ongoing evaluations of the airport operations and progress on the new virtual tower should continue. Also, various staffing models/options should be reviewed and cost estimates developed in preparation for this expansion.

Increased Staffing for CSD: Since 2009, the workload in the CSD has risen over 200% (based on numbers and indicators in 2017). The workforce for CSD is nearly at the same strength as it was in 2009, yet workloads have increased significantly. What is needed in CSD is the ability to hire more part-time fire inspectors and plan reviewers as the workload increases. There is also a need for a full-time public education specialist to replace the public education officer that was lost in the cutbacks in 2009. No cost estimates are available for this item at the time of this writing. A complete workforce analysis and costs projections will need to be completed before accurate costs estimates can be determined.

Add Second Quick Response Vehicle/Company: The QRV concept is explained above. The success of this new alternate response vehicle will drive the need for a second such company. The full cost budgeting for the QRV, capital and staffing costs are listed at $1,210,021 in 2025 dollars. Currently, there is no identified funding stream for adding this second QRV.

Purchasing Land for New SE Fire Station: There will be a need, in the future for a new fire station in the south/southeast area- targeted near Hwy 402 and South Boise Ave. This item is a carryover from the *2012 LFRA Strategic Plan*, and just as in that plan, is only advocating for the purchase of the land. The station is planned for some time in the years 2027-2035, depending on the growth of the area. Because the timeframe for purchasing this land is uncertain, it is difficult to call out specifics for costs. However, it is expected that the need will be for 2-3 acres of property with an estimated cost of $75,000-$85,000 per acre. Thus, a $250,000 cost estimate for land is being utilized. Funding is expected to come from capital expansion or impact fees.

Recommendations/Implementation: Strategic Plan Priorities, Other Organizational Needs

This chart lists the 27 Strategic Planning Initiatives under four important categories: those listed in the *10-Year Capital Plan*; those that were *Carry-Overs* from the *2012 LFRA Strategic Plan*, those listed as *New Initiatives*, yet having an identified funding source *(Fund Sourced)* A final and perhaps most important category are those *New Initiatives listed that have no identified funding source (No $ Sourced).*

Strategic Plan Initiative	10-Year Capital	2012 Plan Carry-Over	New Initiative Fund Sourced	New Initiative No $ Sourced
High Priorities-Phase 1				
1. Construction- Station 7 & Apparatus	**X**	**X**	**X**	
2. Staffing for Station 7	**X**	**X**	**X**	
3. Training Center Burn Building	**X**		**X**	
4. Community Safety Division Inspector				**X**
5. Replace Fire Engine #0156	**X**	**X**	**X**	
High Priorities-Phase 2				
6. Replace Fire Engine #0109	**X**		**X**	
7. Architectural Design for Station 10	**X**		**X**	
8. Construction- Station 10 & Apparatus	**X**		**X**	
9. Staffing for Station 10	**X**		**X**	
10. Replace Fire Engine #0110	**X**		**X**	
11. Replace Rescue Squad 6 #0352	**X**		**X**	
12. Add 3rd Full-Time FF for Rescue 2				**X**
Intermediate Priorities-Phase 3				
13. Add 3 Shift BCs (New East Battalion)				**X**
14. Remodel Fire Station 5	**X**		**X**	
15. Replace Ladder Truck 6 #0202	**X**		**X**	
16. QRV- Capital and Staffing				**X**
17. Remodel Fire Station 3	**X**		**X**	
18. Replace Fire Engine #0111	**X**		**X**	
Future Priorities				
19. Add Support Battalion Chief			**X**	
20. Technology Improvements				**X**
21. Additional Training Staff		**X**		**X**
22. Part-time Seasonal Wildland Mgr.				**X**
23. Information Technology Position				**X**
24. Increase Staffing for Airport Sta. 4				**X**
25. Increase Staffing for CSD				**X**
26. QRV (2nd)- Capital and Staffing				**X**
27. Purchase Land for S.E. Fire Station		**X**		**X**

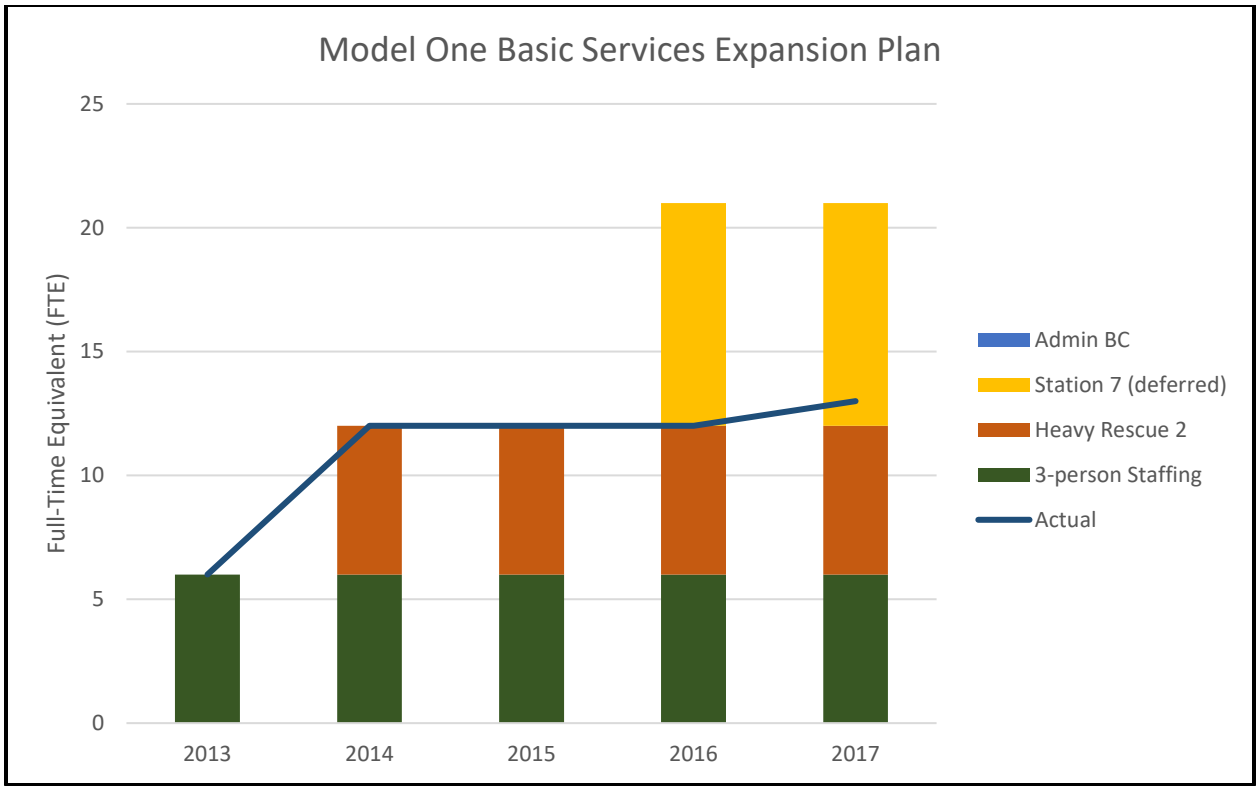
Uniformed Line Firefighter Hiring
Years 2012-2026

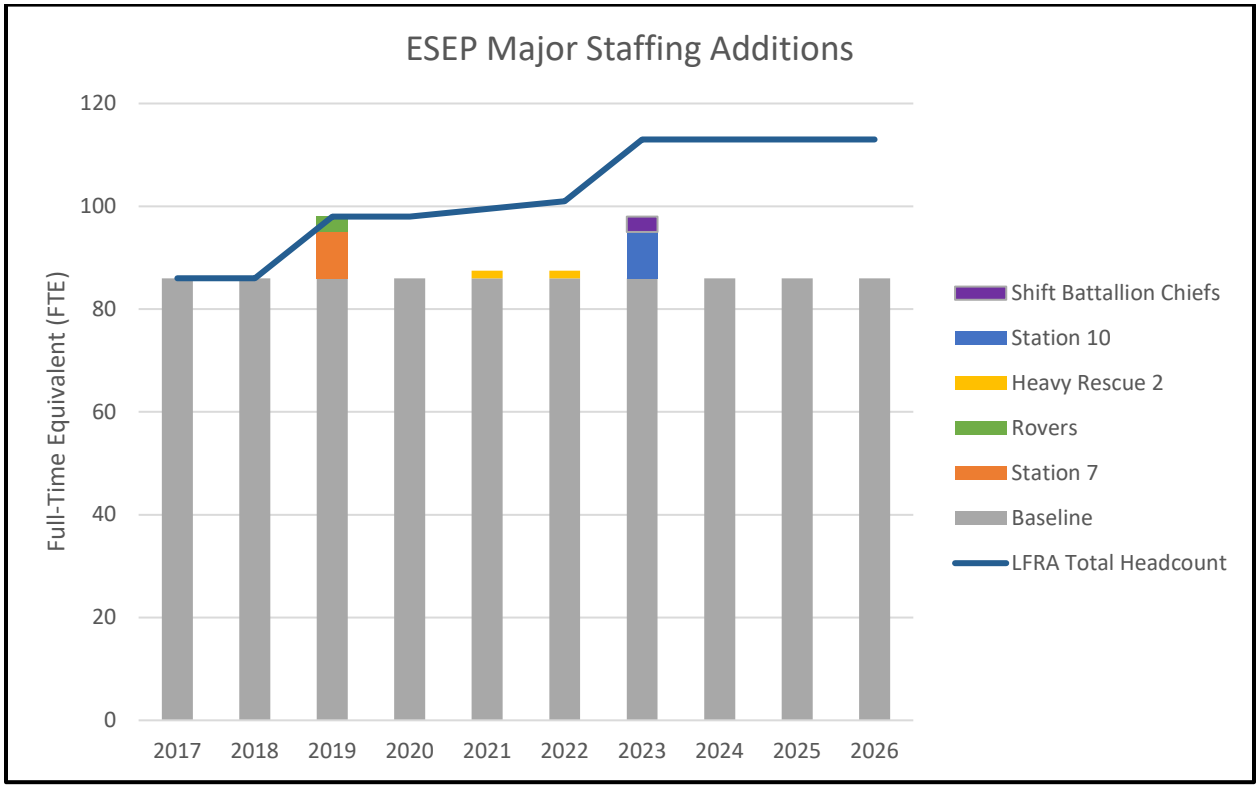
The following information chart represents the hiring of uniformed, line firefighters over a fifteen year period from2012-2026. This period also covers the current and future strategic plans for the organization. Three columns follow the years listed; they include the number of firefighters planned for within the strategic plan, the actual number hired and for what purpose they were hired. The numbers listed from 2018 on are projected numbers from the 2018 LFRA Strategic Plan.

YEAR	POSITIONS PLANNED	ACTUAL # HIRED	PURPOSE FOR POSITIONS HIRED
2012/2013	**6**	**6**	Additions to help with increasing minimum staffing up to 3 person crews
2014	**6**	**6**	Additions for new Heavy Rescue 2 (with FIT position staffing was at 3)
2015	**0**	**0**	No additions for line staff in this year
2016	**9**	**0**	9 firefighters were planned for opening Station 7- hiring was moved out to 2019
2017	**0**	**1**	1 new Admin BC was added- funds came from restructuring current admin staff- no new $
2018 Marks the start of the new LFRA Strategic Plan			
2018	**0**	**0**	No new line additions planned for this year
2019	**9**	**---**	9 firefighters planned for opening of Station 7
2019	**3**	**---**	3 firefighters added for coverage (Rovers)
2020	**0**	**0**	No new line additions planned for this year
2021	**3**	**---**	3 firefighter positions planned for Heavy Rescue 2 (Squad) for 3rd FT firefighter
2022	**0**	**0**	No new line additions planned for this year
2023	**9**	**---**	9 firefighters planned for opening of Station 10
2024	**3**	**---**	3 firefighters planned for 3 shift BC positions (this will be for the addition of 2nd battalion)
2025	**0**	**---**	No new line additions planned for this year
2026	**0**	**---**	No new line additions planned for this year

NOTE: The positions for the first and second QRVs are not listed in this matrix

Hiring Comparisons Charts for Model 1 and ESEP (2012-2026)





LOVELAND FIRE RESCUE AUTHORITY
2018 STRATEGIC PLAN
APPENDIX

The appendix section of the 2018 LFRA Strategic Plan contains important, supplementary information of an explanatory nature that can assist in clarifying, or enhancing the information contained within the planning document itself. There are three specific sections within the appendix. They include:

Appendix A: Glossary of Terms

Fire Department Glossary of Terms

A

Accelerant: flammable fuel (often liquid) used by some arsonists to increase size or intensity of fire. May also be accidentally introduced when *HAZMAT* becomes involved in fire.

Accountability: The process of emergency responders (fire, police, SAR, emergency medical, etc...) checking into and making themselves announced as being on-scene during an incident to an incident commander or accountability officer. Through the accountability system, each person is tracked throughout the incident until released from the scene by the incident commander or accountability officer. This is becoming a standard in the emergency services arena primarily for the safety of emergency personnel. This system may implement a name tag system or personal locator device (tracking device used by each individual that is linked to a computer).

Alarm: (1) system for detecting and reporting unusual conditions, such as smoke, fire, flood, loss of air, HAZMAT release, etc; (2) a specific assignment of multiple fire companies and/or units to a particular incident, usually of fire in nature; (3) centralized dispatch center for interpreting alarms and dispatching resources.

Apparatus: A term usually used by firefighters describing a department vehicle (i.e. fire engine).

B

Backdraft: A fire phenomenon caused when heat and heavy smoke (unburned fuel particles) accumulate inside a compartment, depleting the available air, and then oxygen/air is re-introduced, completing the *fire tetrahedron* and causing rapid combustion.

Bus: Common term (firefighter slang) usually referring to an Ambulance

C

Charge a hose: To make water pressure available on a hose in final preparation for its use. This is done on the scene after the hose is deployed.

Chauffeur: Driver of a particular emergency apparatus. A paid position within the fire department and a promotable position.

Class A fire: A fire involving combustibles such as wood, paper, and other natural materials.

Class B fire: A fire involving hydrocarbons.

Class C fire: An electrical fire.

Class D fire: A fire involving metals, such as sodium, titanium, magnesium, potassium, uranium, lithium, plutonium and calcium.

Cockloft: structural space above ceiling and below rafters, often connecting adjacent occupancies and permitting fire to spread laterally, often unseen.

Collapse zone: The area around a structure that would contain debris if the building were to collapse.

Company: two or more firefighters organized as a team, led by a fire officer, and equipped to perform certain operational functions. Compare with platoon and unit.

Company officer - A fire officer, typically a lieutenant or captain, who leads a team of two or more firefighters in a company.

Compartment Fire: An "Isolated" fire, or a fire which is "boxed in" or "closed off" from the rest of the structure. An example of this is a fire in a room where all the windows and doors are closed preventing the fire from spreading to other rooms.

Confined space: A confined space is any space: 1) that has limited or restricted means of entry or exit; 2) is large enough for a person to enter to perform tasks; 3) and is not designed or configured for continuous occupancy

Cross lay: Arrangement of hose on a pumper such that it can be quickly unloaded from either side of the apparatus; often pre-connected to a pump outlet and equipped with a suitable nozzle. Also known as Mattydale Lay.

D

Defensive Attack: A primarily exterior form of attack often used when fighting the fire directly or from within a structure is not feasible due to dangers from direct flame, heat, structural collapse or the presence of hazardous materials. Often structures which are fully involved are attacked defensively with the main goal being the protection of nearby exposures.

Direct attack: A form of fire attack in which hoses are advanced to the fire inside a structure and hose streams directed at the burning materials.

Dispatch: Refers to person or place designated for handling a call for help by alerting the specific resources necessary.

E

Electrical fire: A fire in which the primary source of heat is electricity, resulting in combustion of adjacent insulation and other materials; may be hazardous to attempt to extinguish using water.

EMS: Emergency Medical Service(s).

Engine: A fire suppression vehicle that has a water pump and, typically, is designed to carry firehose and a limited supply of water.

Engineer: A firefighter responsible for driving the engine to the scene of the call and operation of the pumps on an engine, to provide sufficient water to the firefighters on the hose. The term may be either a position title or a rank; usage varies among departments. (Also see Chauffer)

Engine Company: A group of firefighters assigned to an apparatus with a water pump and equipped with firehose and other tools related to fire extinguishment.

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Enhanced 9-1-1: Electronic system for automatic correlation of physical telephone lines with information about the location of the caller -- a useful tool for dispatchers when the caller has an emergency but cannot speak.

Evacuation: Removal of personnel from a dangerous area, in particular, a HAZMAT incident, burning building, or other emergency. Also refers to act of removing firefighters from a structure in danger of collapsing.

Exposure: Property near fire that may become involved by transfer of heat or burning material from main fire, typically by convection or radiation. May range from 40 feet (12 m) to several miles, depending on size and type of fire or explosion.

Exterior attack: A method of extinguishing a fire which does not involve entering the structure. Often used when so much of the building is involved in fire that there is little or no benefit to risking firefighter safety by inserting them into the structure (see also “Defensive Attack”).

Extrication: Removal of a trapped victim such as a vehicle extrication, confined space rescue, or trench rescue; sometimes using hydraulic spreader, or other technical equipment

F

FDC (Fire Department Connection): Location in which pumping apparatus hooks to a buildings standpipe and or sprinkler system. Commonly a 2 ½” female connection or a 5”storz connection.

Fire flow: The amount of water being pumped onto a fire, or required to extinguish a hypothetical fire. A critical calculation in light of the axiom that an ordinary fire will not be extinguished unless there is sufficient water to remove the heat of the fire.

Fireground: The operational area at the scene of a fire.

Fire hazard: Materials, structures or processes that may result in creating a fire, permitting a fire to grow undetected, or preventing people from escaping a fire.

Fire inspector: A person responsible for issuing permits and enforcing the *fire code*, including any necessary premises inspection, as before allowing (or during) a large indoor gathering.

Fire load (Btu/sq ft): An estimate of the amount of heat that will be given off during ordinary combustion of all the fuel in a given space; e.g., a bedroom or a lumberyard.

Fire marshal: Administrative and investigative office for fire prevention and arson investigation. Has legal authority to enforce state and local fire laws.

Fire wall: Building structure designed to delay horizontal spread of a fire from one area of a building to another; often regulated by *fire code* and required to have self-closing doors, and fireproof construction.

Flashover: Simultaneous ignition of combustible materials in a closed space, as when materials simultaneously reach their *fire point*; may also result in *rollover*.

Foam- Extinguishing agent formed by mixing foam concentrate with water and aerating the solution for expansion.

Forcible entry: gaining entry to an area using force to disable or bypass security devices, typically using force tools, sometimes using tools specialized for entry (e.g., Halligan, K-tool).
.

Friction loss: Reduction of flow in a *firehose* caused by friction between the water and the lining of the hose. Depends primarily upon diameter, type and length of hose, and amount of water (GPM) flowing through.

Fully involved: Term of *size-up* meaning fire, heat and smoke in a structure are so widespread that internal access must wait until fire streams can be applied.

G

GPM: Gallons per Minute - number of gallons being pumped out of a piece of equipment every minute.

H

HAZMAT: Hazardous materials, including solids, liquids, or gases that may cause injury, death, or damage if released or triggered.

High-rise building: The National Fire Protection Association defines a high-rise as being higher than 75 feet or about 7 stories. Operationally, a building taller than available F.D. ladders.

Hot zone: contaminated area of HAZMAT incident that must be isolated; requires suitable protective equipment to enter and decontamination upon exit; minimum hot zone distance from unknown material with unknown release is 330 feet (United Nations Emergency Response Guidebook); surrounded by "warm zone" where decontamination takes place.

I

IDLH: Any situation deemed **I**mmediately **D**angerous to **L**ife and **H**ealth (IDLH).

Incident Commander: The officer in charge of all activities at an incident. See Incident Command System.

Incident Safety Officer: The officer in charge of scene safety at an incident. See Incident Command System.

Indirect attack: Method of firefighting in which water is pumped onto materials above or near the fire so that the splash rains onto the fire, often used where a structure is unsafe to enter.

Initial attack: First point of attack on a fire where hose lines or fuel separation are used to prevent further extension of the fire.

Interior attack: Inserting a team of firefighters into the burning structure, in an attempt to extinguish a blaze from inside the structure, minimizing property damage from fire, smoke, and water. Requires a minimum of four fully-equipped firefighters: an entry team of at least two to enter the structure and fight the fire, and two standing by to rescue or relieve the entry team (see two in, two out). If the entry team(s) cannot extinguish the blaze, may become an ***Exterior Attack***.

ISO Rating: Insurance Services Office Public Protection Classification Rating. This is a rating published by the Insurance Services Office. Many insurance companies use this number to determine insurance premiums paid by their customers. ISO evaluations rate water supplies, dispatch capabilities and the fire department as a whole in this rating process. Values are made from 1-10 (lower=better).

Irons: The flathead axe mated with the Halligan bar. Firefighters often refer to these as the Crossed Irons, or Married Irons, because the Halligan Bar can fit to the Axe head.

J

Jaws of Life: Hydraulic spreader used in extrication procedures. Most commonly used, but not limited to, during motor vehicle accidents.

Jurisdiction: Jurisdiction generally describes any authority over a certain area or certain persons. In the law, jurisdiction sometimes refers to a particular geographic area containing a defined legal authority. Many times the fire department is referred to as “the authority having jurisdiction.”

L

Ladder Company: A group of fire fighters, officers and engineers that staff a Truck that’s primary duty is to supply ladders to a fire scene. In most Fire Departments the Ladder Truck Company is responsible for ventilation of a structure on fire.

Level I, II, III Incident: A HAZMAT term denoting the severity of the incident and the type of response that may be necessary, where Level III is the largest or most dangerous.

M

Maltese Cross: The emblem of the fire service is often referred to as a “Maltese Cross”. But the actual origin of the current or common emblem in the U.S. remains uncertain. The Maltese cross is a symbol that is most commonly associated with the Knights of Malta (also known as the Knights Hospitallers of St. John), who ruled the Maltese islands between 1530 and 1798.

Mass casualty incident (MCI): Any incident that produces a large number of injured persons requiring emergency medical treatment and transportation to a medical facility. The exact number of patients that makes an incident "mass casualty" is defined by departmental procedures and may vary from area to area.

Master stream: A large nozzle, either portable or fixed to a pumper, capable of throwing large amounts of water relatively long distances.

Means of egress: The way out of a building during an emergency; may be by door, window, hallway, or exterior fire escape; local fire codes will often dictate the size. Location and type is dictated according to the number of occupants and the type of occupancy.

Multiple alarms: A request by an incident commander for additional personnel and apparatus. Each department will vary on the number of apparatus and personnel on each additional alarm.

Mutual aid: An agreement between nearby fire companies to assist each other during emergencies by responding with available manpower and apparatus.

MVA: Motor Vehicle Accident.

N

NFPA: The **N**ational **F**ire **P**rotection **A**ssociation, a research group which sets a number of standards and best practices for *firefighting, equipment, and fire protection in the United States, and also adopted in many other countries. Also, slang for *"No Free Publications Available"*; used to reference any "must-have" documents that are prohibitively expensive.

NIOSH: National **I**nstitute for **O**ccupational **S**afety and **H**ealth. A U.S. agency responsible for investigation of workplace deaths, including firefighters.

NIMS: The **N**ational **I**ncident **M**anagement **S**ystem. A federally mandated program for the standardizing of command terminology and procedures. This standardizes communications between fire departments and other agencies. It is based upon simple terms that will be used nationwide. Currently, U.S. federally required training programs, from DHS and FEMA, are in the process of standardizing many terms and procedures under NIMS.

O

Occupancy: Zoning and safety code term used to determine how a structure is permitted to be used and occupied, which in turn dictates the necessary safety structures and procedures.

Offensive attack: Method of firefighting in which water or other extinguisher is taken directly to the seat of the fire, as opposed to being pumped in that general direction from a safe distance.

OSHA: Occupational **S**afety and **H**ealth **A**dministration, U.S. government agency concerned with regulating employee safety, particularly in hazardous occupations such as firefighting.

Overhauling: Late stage in fire-suppression process during which the burned area is carefully examined for remaining sources of heat that may *re-kindle* the fire. Often coincides with *salvage* operations to prevent further loss to structure or its contents, as well as fire-cause determination and preservation of evidence.

Oxidizer: A hazardous material containing oxygen that can combine with adjacent fuel to start or feed a fire.

P

Personnel Accountability Report ("PAR"): End-result of *personnel accountability system.* Best report is *all hands, AOK*, worse is *squad missing.* You will often hear command ask for a "PAR" when something has changed on the fireground. Often the reply will be something like, "Engine 4, PAR." or "Engine 4 has PAR."

Personnel accountability system: Tag, 'passport', or other system for identification and tracking of personnel at an incident, especially those entering and leaving an IDLH area; intended to permit rapid determination of who may be at risk or lost during sudden changes at the scene.

Plug: Slang term for a fire hydrant. This survives from the days when water mains actually had holes in the tops that were plugged. Many firefighters would like to keep this word while many others think it should be replaced with the accurate term, "hydrant".

Pre-arrival instructions: Directions given by a dispatcher to a caller until emergency units can arrive.

Pre-fire, pre-incident planning: Information collected by fire prevention officers to assist in identifying hazards and the equipment, supplies, personnel, skills, and procedures needed to deal with a potential incident.

Pre-planning: Fire protection strategy involving visits to potentially hazardous occupancies for inspection, follow up analysis and recommendations for actions to be taken in case of specific incidents. Not to be confused with *post-planning*.

"**Professional Firefighter:**" All firefighters are classified as "professionals" by both the International Association of Fire Chiefs (IAFC) and the International Association of Fire Fighters (IAFF trade union). All firefighters are required by most state laws and general practice to meet the same training and equipment standards, take the same examinations for promotion and perform the same work under the same hazards. There are two accepted categories of Professional Firefighters--Volunteer Firefighters who may or may not receive pay for services and Career Firefighters whose primary employment and source of earned income is in the fire service.

Pumper: A fire truck with a water tank.

Pump operator, technician: (also a *chauffeur*): person responsible for operating the pumps on a pumper and typically for driving the pumper to an incident.

R

Rapid Intervention Crew/Group/Team (RIC, RIG, or RIT): This is a standby crew whose purpose is to go in for the rescue of firefighters in trouble. While all of these versions of the name for a firefighter rescue crew either have been used or continue to be used in several areas, the National Incident Management System (NIMS) has adopted the term Rapid Intervention Crew/Company, ("RIC") to be the standard in the Incident Command System (ICS). Currently, U.S. federally required training programs, from DHS and FEMA, are in the process of standardizing many terms and procedures under NIMS.

Re-kindle: A situation in which a fire, thought to be extinguished, resumes burning.

Rescue Company: Squad of firefighters trained and equipped to enter adverse conditions and rescue victims of an incident. Often delegated to a truck company.

Residential sprinkler system: A sprinkler system arranged for fire suppression in a dwelling.

Residual pressure: The amount of pressure in a hydrant system when a hydrant is fully open, such as during a fire; should be engineered to provide domestic supply of water to homes and businesses during a large fire in the district.

Rollover: The ignition of ceiling-level fire gases.

S

Salvage, **salvage cover:** Heavy-duty tarpaulins folded or rolled for quick deployment to cover personal property subjected to possible water or other damage during firefighting.

Scene safety: Steps taken at or near an emergency scene to reduce hazards and prevent further injuries to workers, victims or bystanders.

SCBA Self Contained Breathing Apparatus which you have your oxygen tank and mask, keeps you from breathing in smoke or hazardous gases. Part of your personal protective equipment (PPE).

Sides A, B, C, and D: Terms used by firefighters labeling the multiple sides of a building starting with side A or Alpha being the front of the structure and working its way around the outside of the structure in a clockwise direction. This labels the front side A or Alpha, the left side B or Bravo, the rear side C or Charlie, and the right side D or Delta.

Size-up: initial evaluation of an incident, in particular a determination of immediate hazards to responders, other lives and property, and what additional resources may be needed; often communicated in the initial arrival report of the first arriving officer.

Solid stream: fire stream from round orifice of *nozzle*. Compare *straight stream.*

Staging: sector of incident command where responding resources arrive for assignment to another sector. Often an essential element in *personnel accountability* program.

Standard operating procedure, guideline (SOP or SOG): Rules for the operation of a fire department, such as how to respond to various types of emergencies, training requirements, use of protective equipment, radio procedures; often include local interpretations of regulations and standards. In general, "procedures" are specific, whereas "guidelines" are less detailed.

Static pressure: The pressure in a water system when the water is not flowing.

Straight stream: Round, hollow stream formed as water passes a round baffle through a round orifice (e.g., on an adjustable *nozzle*.) Compare *solid stream.*

Structure fire (or "structural fire"): A fire in a residential or commercial building. Urban fire departments are primarily geared toward structural firefighting. The term is often used to distinguish them from *wildland fire* or other *outside fire*, and may also refer to the type of training and equipment such as "structure PPE" (personal protective equipment).

Sworn Personnel: Firefighters take a sworn oath to protect and serve the community in which they work. Sometimes refers to those career firefighters making up the operational workforce within a fire department.

T

Tailboard: Portion at rear of fire engine where firefighters used to stand and ride. The modern version of this is the working area or where firefighters step up to access hoses in the hose bed.

Tanker: An aircraft equipped to carry water or fire retardant for use in wildland fire suppression. Archaic: see "Tender", below.

Tender (or Water Tender): A specialized piece of firefighting equipment designed to carry larger amounts of water; typically utilized in areas where fire hydrants are absent or few and far between.

Truck company: a group of firefighters assigned to an apparatus that carries ladders, forcible entry tools, possibly extrication tools and salvage covers, and who are otherwise equipped to perform rescue, ventilation, overhaul and other specific functions at fires; also called "ladder company."

Turnout Gear: The protective clothing worn by firefighters

Two-in, two-out (or "**two in/two out**": Refers to the OSHA standard safety tactic of having one team of two firefighters enter a hazardous zone (IDLH), while at least two others stand by outside in case the first two need rescue — thus requiring a minimum of four firefighters on scene prior to starting interior attack. Also refers to the "buddy system" in which firefighters are to never enter or leave a burning structure alone.

Type I, II, III, IV, V Building - U.S. classification system for fire resistance of building construction types, including definitions for "resistive" Type I, "non-combustible" Type II, "ordinary" Type III, heavy timber Type IV, and "frame construction" Type V (i.e., made entirely of wood).

U

Under Control: Fire or spill etc. is no longer spreading. The situation is contained. This term should not be confused with a report that the fire is out.

United States Fire Administration (USFA) - Division of the Federal Emergency Management Agency (FEMA), which in turn is managed by the Department of Homeland Security (DHS).

Universal precautions: The use of safety barriers (gloves, mask, and goggles) to limit an emergency responder's contact with contaminants, especially fluids of injured patients.

Utility Truck Usually manned by an engine company and responds to utility calls like water main breaks. Some small departments use them to respond to medical calls to save gas money.

V

Vehicle fire: Type of fire involving motor vehicles themselves, their fuel or cargo; has peculiar issues of rescue, explosion sources, toxic smoke and runoff, and *scene safety*.

Ventilation: Important procedure in firefighting in which the hot smoke and gases are removed from inside a structure, either by natural convection or forced either through existing openings or new ones provided by firefighters at appropriate locations (e.g., on the roof).

Venturi effect: Creating a partial vacuum using a constricted fluid flow, used in fire equipment for mixing chemicals into water streams, or for measuring flow velocity.

Vertical ventilation: Ventilation technique making use of the principle of convection in which heated gases naturally rise.

Voids (building): Enclosed portions of a building where fire can spread undetected.

W

Water hammer: Large, damaging shock wave in a water supply system caused by shutting a valve quickly, or by permitting a vehicle to drive across an unprotected fire hose.

Well Involved: Term of size-up meaning fire, heat and smoke in a structure are so widespread that internal access must wait until fire streams can be applied.

Wet down ceremony: A traditional ceremony for the placing of new apparatus in service. There are several versions of this but it usually includes: pushing the old apparatus out, wetting down the new vehicle and pushing it back into the station. It may also include the moving of the bell to the new apparatus, photos, etc.

Z

Zone: Section of structure indicated on *fire alarm control panel* where sensor was activated.

Appendix B: Planning Assumptions

BASIC PLANNING ASSUMPTIONS

The basic planning assumptions for LFRA are broken out into two distinct areas: **Stage One** and **Stage Two**. Stage One covers eight basic assumptions that serve as the foundation of this plan for the years 2018-2026. The planning assumptions listed in Stage One have identified goals and objectives; some have cost estimates for the areas of expansion or improvement. Stage Two is based on long-term expectations of what may occur beyond 2026. It is more general and contains no set goals or objectives or costs, but rather initiatives that are likely to be needed. The Basic Planning Assumptions are the forecasting tools for staffing and large capital expenses only.

Planning Assumptions for Loveland Fire Rescue Authority for Stage One and Stage Two
Stage 1 assumptions are more specific and listed for years 2018-2026 (see ESEP in Part 3)

Stage One Planning Assumptions

9. ***Service Levels Provided*** **-** The Fire Authority expects to maintain or improve current City and Rural District response service levels and those projected for future expansion.
10. ***Population Expansion*** **-** Projections for expansion will assume a continuing growth of 2% to 2.5% per year from 2018-2026. This would calculate into a population of approximately 121,000 in 2026 for the Fire Authority service area or response area.
11. ***Station/Fire Company Expansion*** **-** Projections for replacement or addition of new fire stations and staffing would include:
    - *Adding 2 fully staffed fire stations- one each in the west and east side of the district*
    - *Adding 18 new full time positions to staff these new stations*
    - *Adding 3 full time positions for coverage or shift fill-in.*
    - *Adding 3 full time positons for the addition of three new shift battalion chiefs*
    - *Adding two Quick Response Vehicles (first QRV will be placed in area of need)*
12. ***Workforce Staffing Methods*** **-** Projections for Stage One include the use of both full-time paid and volunteer firefighters. Stations within the Urban Response Areas (URA) are planned to be staffed with full-time paid firefighters- minimum staffing at three firefighters per company. Volunteer firefighters will staff Big Thompson Canyon stations.
13. ***Airport Expansion*** **-** Northern Colorado Regional Airport is expected to expand its services in the near future. The numbers of larger passenger flights will likely increase in the next 2-3 years. More personnel and other firefighting resources will be needed if this expansion occurs. One QRV may be utilized to address the initial expansion of services.
14. ***Additional Non-Uniformed FTEs*** **-** Projections for workforce expansion in this area should include an IT specialist and an additional administrative assistant, and additional part time inspectors and plan reviewers in the Community Safety Division.
15. ***Completion of the Accreditation Process*** **-** The Fire Authority expects to become a fully accredited agency through the Commission on Fire Accreditation (CFAI) and will have in place plans for ongoing reaccreditation after the initial certification.

16. ***Selection of the Essential Services Expansion Plan (ESEP) –*** The Essential Services Expansion Plan is to be the strategy of choice for the *2018 LFRA Strategic Plan*.

Stage Two Planning Assumptions

Stage Two *(2027-2035) will include planning expectations without identified funding streams. These planning assumptions are expected to be very general and based on a historical and projected forecast of what the department's needs will be during this timeframe.*

4. ***Organizational Planning Goals/Expectations -*** Projections for this next phase (2027-2035) should include ***consideration*** for:

   - Expansion of the training center and completion of its master plan
   - Relocation of fire station one and/ or LFRA's Headquarters and Administration and the Community Safety Division
   - Full staffing of the airport station (Station 4) for area coverage and addressing more expanded airport operations, and/or expansion in the commercial business park or commercial area around the airport. This will be reviewed on an "as needed basis" within the City of Loveland and the Rural District's planning process, and periodically with the Airport Director and the Director of Public Works to ensure proper service level needs are maintained
   - Addition of one fire station to the south/southeast corridor, projected for the area of South Boise and Highway 402, depending on growth and service level needs
   - Expansion of an additional truck/ heavy rescue company
   - Expansion for a paid staff position for Big Thompson Canyon station (40-hour training and response position)
   - Expansion of resources for the wildland urban interface area, including prevention, mitigation and enforcement functions
   - Expansion of the staff within the training division
   - Increase of minimum staffing from three firefighters per company to four firefighters for specific companies (ex. truck, heavy rescue squad and some specific engine companies)

5. ***Workforce Staffing Analysis -*** Projections in Stage 2 should include a comprehensive analysis of the three-person staffing system for each fire company. The authority should conduct this analysis utilizing the latest available research and data to best meet the community's fire/rescue needs. This analysis would include:

   - Workforce staffing model for both 3-person and four-person engine companies
   - Use of the Quick Response Vehicle as part of the overall workforce staffing model
   - 24 hour shift staffing models including the traditional models (Berkley system

currently in use at LFRA), the 48-96 system (currently in use in other regional departments) and other shift staffing models
- A workforce staffing and needs analysis of the Big Thompson Canyon area
- Impacts of staffing and workload within the criteria established for the authority's accreditation
- Any other workload/staffing issues and impacts

Specific Planning Assumptions from Applicable Sections- Listed by Subject/Area

Staffing and Deployment-

Staffing and Deployment Planning Assumption 1 - LFRA fire companies (engine, truck, and squad companies) will be staffed at three personnel minimum with a target for deployment for structure fires at 16 firefighting personnel, meeting the intent of NFPA 1710.

Staffing and Deployment Planning Assumption 2 - The full-time paid (career) staffing model will be utilized for fire stations in the Urban Response Area. The volunteer firefighter model for staffing and deployment will be used for LFRA stations in the Big Thompson Canyon.

Staffing and Deployment Planning Assumption 3 - The use of technology and other scientific discoveries for fire suppression will continue to be evaluated by LFRA leadership and personnel. Changes to operational procedures and overall tactical operations will be examined and incorporated into LFRA's procedures where appropriate.

Staffing and Deployment Planning Assumption 4 - Alternate staffing and deployment methods, such as the use of QRVs, will be a part of LFRA's future operational practices.

Staffing and Deployment Planning Assumption 5 - Periodic, ongoing evaluations for the efficiency and effectiveness of the LFRA staffing model are needed. In addition, there is a need for a future, more comprehensive, workforce-staffing analysis to determine the best and most effective future staffing model for LFRA.

Staffing and Deployment Planning Assumption 6 - All future staffing levels within every division of LFRA are based on normal forecasted expansion of population and businesses or industrial complexes within the Fire Authority's response area.

Staffing and Deployment Planning Assumption 7- Automatic aid (auto-aid) and mutual aid will continue to be a vital part of LFRA's initial emergency response planning and long-term solutions for additional staffing for the emergency scene. Training with and building and keeping strong relationships with surrounding and regional fire departments will be a priority.

Emergency Medical Services-

EMS Planning Assumption 1 - The current model for the EMS system within the LFRA district, which includes BLS services and support functions provided by LFRA and ALS services and transport provided by TVEMS, provides high quality levels of citizen service and a high level of EMS patient care.

EMS Planning Assumption 2 - The response model that is currently in place, with the noted targets for performance of a BLS unit on scene within 6 minutes and 30 seconds from the time of dispatch and an ALS transport unit on the scene within 9 minutes 90% of the time within the Urban Response Area is appropriate as a target for performance goals.

EMS Planning Assumption 3 - Relevant performance measurements need to be monitored, measured, and reviewed at least annually for adherence to specific standards of performance.

EMS Planning Assumption 4 - A continuing collaborative process between LFRA and TVEMS for strategic and operational planning is necessary for of high quality EMS in the LFRA district.

EMS Planning Assumption 5 - A commitment for continuous improvement in the EMS system within the LFRA district will include Basic Life Support Services, Advanced Life Support Services, Emergency Medical Dispatching, and Public Medical Awareness and Training including activation of the EMS system and citizen CPR training.

EMS Planning Assumption 6- Steps will be taken by LFRA and TVEMS to continue the designation of Loveland as a "Heart Safe Community" for the immediate future.

EMS Planning Assumption 7 – Solid working relationships between LFRA and TVEMS should remain a very high priority for both agencies. Technological advances will occur in the future and will likely have a positive effect on EMS services. Plans for adoption of technology should be evaluated carefully and made when they make sense and improve EMS services.

Wildland Urban Interface (WUI)-

Wildland Planning Assumption 1- Future trends suggest that the WUI problem is likely to grow to a higher level from 2018-2026, including more people and structures within the WUI zone.

Wildland Planning Assumption 2 - The current model of fire protection and mitigation for wildland fire operations will likely not be adequate for the future. More resources and funding will need to be invested to keep up with the anticipated future needs.

Wildland Planning Assumption 3 - Current federal and possibly state resources, upon which we currently depend, may be reduced or even eliminated in the future.

Wildland Planning Assumption 4 - Development of even stronger operational partnerships and regional cooperative relationships will be needed to offset the loss of federal and state resources in order to maintain an adequate and reliable emergency response. Local Incident Management Teams (IMTs) should be evaluated and developed for future operations in the region of northern Colorado, including areas within the LFRA response district.

Wildland Planning Assumption 5 - If voluntary programs such as education and engineering in the Five Points approach above are successful, many of the problems listed in this section of the plan could be adequately addressed. Any improvements, trigger points, and tracking of data should be identified and implemented into the long-range future plans.

Wildland Planning Assumption 6 – New programs for community education and involvement in the WUI area will need to be evaluated and pursued in order to make prevention and mitigation programs more effective. LFRA should consider the *Ready, Set, Go Program** for the future.

Wildland Planning Assumption 7 – Enhancement of the resources within Stations 8 and 9 will be a part of the plan for improvement in the WUI for LFRA. The opening of new fire station 7 will play an important role in training and coordinating the available WUI resources for LFRA and other regional partners.

Special Operations (SOT)-

Special Operations Planning Assumption 1- The current model of operations for SOT works well and is adequate for the current call load and community demand for services in this area.

Special Operations Planning Assumption 2 - Future growth in the community and region surrounding LFRA's response area will likely place much more demand on the services of the department's SOT and render the current model inadequate.

Special Operations Planning Assumption 3 - Additional funding will be needed to account for additional training and equipment for SOT processes. Identified funding streams within LFRA will need to be identified and obtained in order to maintain an adequate level of SOT services and emergency response capability. Alternate funding streams, including grants will need to be investigated to address the needs created by growth and expansion.

Specialized Operations Planning Assumption 4 - A regional approach to the problem of enhanced services needed for SOT is perhaps the most viable and best option for maintaining and improving overall specialized operations service levels within the LFRA response area. The idea of developing a regional team for specialized operations should be investigated within the time parameters set forth by this plan. Some progress has been made in this area in the last few years; more is needed to be done to formalize agreements and develop even stronger working relationships with other regional agencies.

Specialized Operations Planning Assumptions 5 - The linkage to the state's FEMA USAR Team, Colorado Task Force I, is a viable option and enhancement to the local and regional team approach for special operations. Work should continue within the timeframe of this plan to develop emergency response agreements (IGAs or MOUs). A more seamless process for request for service, dispatch, response, and deployment should be developed for the local and/or regional specialized operations team with other state and federal agencies.

Specialized Operations Planning Assumption 6 – LFRA membership into the Colorado Task Force 1 Team would benefit LFRA and the Loveland community. Efforts should continue to pursue openings on this team for LFRA personnel.

Specialized Operations Planning Assumption 7 – The staffing levels on Heavy Rescue 2 is an issues that needs to be addressed within the *2018 LFRA Strategic Plan*. The current three-person minimum staffing level includes the FIT position, which renders Heavy Rescue 2 to a two-person company a significant amount of the time until the FIT can arrive on the emergency scene. This should be a priority item for the *2018 LFRA Strategic Plan*.

Training Battalion-

Training Planning Assumption 1- Based on current firefighter staffing levels and call loads, the current staffing structure for Training will be inadequate for the future training needs of LFRA.

Training Planning Assumption 2 - There is an immediate need for an additional full-time 40-hour firefighter within the training division to help with the basic level training work. Other personnel expansion would also need to be considered within the timeframe of this strategic plan.

Training Planning Assumption 3 - A comprehensive long-term analysis for how the training efforts will be carried out in the future using the Centralized, Decentralized and Ad Hoc training delivery methods should be carried out and included in this as part of this and future strategic plans for LFRA.

Training Planning Assumption 4 – An evaluation of relative training technology needs to be initiated in order to make classroom and other training more efficient and effective and have a positive impact on area coverage and emergency response times.

Training Planning Assumption 5 – Additional land acquisition should be investigated to increase and improve the existing buffer between LFRA's training center and other area properties.

Safety and Survival:

Safety Planning Assumption 1 - LFRA currently has a good safety culture and a commitment to firefighter and citizen safety, including meeting the intent outlined in *Healthy-In, Healthy-Out.*

Safety Planning Assumption 2 – The nature of firefighting and rescue carries with it inherent risks. LFRA will remain committed to meeting the intent of applicable national safety standards, and committed to continuous improvement for the safety and survival of citizens and personnel.

Safety Planning Assumption 3 - There will be a financial cost to staying committed to enhanced firefighter and citizen safety and survival. Some of these costs may be unforeseen and fall outside the bounds of normal financial planning and budgeting as part of strategic planning.

Safety Planning Assumption 4 – There is a need for enhancement of the management and oversight for LFRA's department health and safety program. Assignment of this responsibility specifically to a chief level officer is warranted and needed.

Safety Planning Assumption 5 – There is a need for additional organizational efforts for cancer awareness education and the reduction in firefighter exposure to carcinogens.

Safety Planning Assumption 6 - Safety planning will be a part of this strategic plan and other plans that follow.

Human Resources and Support (HR)-

HR Planning Assumption 1 – The hiring of a new HR Manager will have a positive impact in several areas within the organization. These would include stabilizing the LFRA HR system and creating and effective HR infrastructure.

HR Planning Assumption 2 – HR Management will expand its consultative/strategic role within LFRA in several key areas including Benefits/ Compensation, Employee Relations, Policy Compliance, Personnel Development and Risk Management.

HR Planning Assumption 3 – LFRA HR Management will maintain an effective and collaborative relationship with the City of Loveland Human Resources Department.

HR Planning Assumption 4 – Fitness and wellness evaluations are a high priority impacting firefighter safety and survival. Efforts and programs will be continued and enhanced, meeting the intent of current NFPA fitness standards.

HR Planning Assumption 5 – The LFRA Peer Support program is an important operation for LFRA personnel and will continue to be supported at the current or higher level within the *2018 LFRA Strategic Plan.*

Other Important Areas-

Other Areas Planning Assumption 1 – The ancillary areas that are identified within this section are important to LFRA and integral, in most areas, to the accomplishment of the organization's mission.

Other Areas Planning Assumption 2 – It is important for LFRA to maintain strong relationships with local law enforcement; concentrated efforts to improve these relationships, particularly with Loveland PD will be continued throughout the duration of this *2018 LFRA Strategic Plan*.

Other Areas Planning Assumption 3 – The citizen assistance program is an important initiative for LFRA to prioritize for the future. The organization will enhance its outreach to citizens that have experienced an emergency event.

Other Areas Planning Assumption 4 – LFRA has grown as an organization and with this growth has come a number of additional responsibilities and needs/functions that could best be managed through a support division or battalion. LFRA will need to evaluate this within the timeframe of the *2018 LFRA Strategic Plan*.

Community Safety Division (CSD)-

CSD Planning Assumption 1 – More staffing will likely be needed in CSD for the future to address a growing population and an ever-increasing workload related to commercial development, plans review and new inspections.

CSD Planning Assumption 2 - LFRA's role in plans review and building review processes is critical to ensure a strong fire-rescue perspective in the review process and a more effective community safety impact in the built environment

CSD Planning Assumption 3 - Specific occupancies within the community will continue to require specialized training and knowledge, skills, and abilities for plan reviews and inspections.

CSD Planning Assumption 4 – The community outreach program is an evolving responsibility that will be impacted by technology, change and public expectations. Smoke and CO detector programs will likely continue as the most dominant and effective community outreach.

CSD Planning Assumption 5 - The enhancement of training and outreach for emergency management and EOC operations is integral to a total overall community outreach safety plan.

CSD Planning Assumption 6 – Changes/improvements in the area of public education and information will be needed in the future for "at-risk" citizens or areas within the community.

CSD Planning Assumption 7 – Fire service accreditation is and will be a part of LFRA's future. Management of information and processes to maintain accreditation will be a part of the future for LFRA.

CSD Planning Assumption 8 – The wildland urban interface area will continue to be an area of concern based on population increases and more structures in the WUI. Adoption of the *Wildland Urban Interface Code*, along with increased staffing could address this concern.

Appendix C: Intergovernmental Agreement for Loveland Fire Rescue Authority/Amendment 4

F OURTH AMENDMENT TO THE INTERGOVERNMENTAL AGREEMENT FOR THE ESTABLISHMENT AND OPERATION OF THE LOVELAND FIRE RESCUE AUTHORITY AS A SEPARATE GOVERNMENTAL ENTITY BETWEEN THE CITY OF LOVELAND AND THE LOVELAND RURAL FIRE PROTECTION DISTRICT CONCERNING THE LEASE AND TRANSFER OF REAL AND PERSONAL PROPERTY TO THE AUTHORITY

WHEREAS, on August 19, 2011, pursuant to that certain Intergovernmental Agreement for the Establishment and Operation of the Loveland Fire Rescue Authority as a Separate Governmental Entity ("Formation Agreement"), the City of Loveland ("City") and the Loveland Rural Fire Protection District ("District") created the Loveland Fire Rescue Authority ("Authority"), a public entity of the State of Colorado, for the purpose of providing fire suppression, fire prevention and public education, rescue, extrication, hazardous materials and emergency medical services (collectively, "Emergency Services") within their joint jurisdiction and service area. The Formation Agreement subsequently was amended pursuant to the First, Second, and Third Amendments to the Intergovernmental Agreement for the Establishment and Operation of the Loveland Fire Rescue Authority as a Separate Governmental Entity. The Formation Agreement and the First, Second, and Third Amendments thereto are referred to collectively herein as the "Formation Agreement", and the City and District are referred to collectively as the "Parties" or individually as a "Party";

WHEREAS, pursuant to Sections 6.1 and 6.2 of the Formation Agreement, the City initially leased for renewing one-year periods its Fire and Rescue Department real and personal property ("City Fire Property") to the Authority for the provision of Emergency Services within the Authority's jurisdiction;

WHEREAS, pursuant to Section 7.1 and Article VIII of the Formation Agreement, the District initially leased for renewing one-year periods its fire equipment and apparatus ("District Fire Equipment") to the Authority for the provision of Emergency Services within the Authority's jurisdiction, except that the District Fire Equipment leased to the Authority did not include any fire equipment or apparatus then used by the Big Thompson Canyon Volunteer Fire Department ("Canyon Department");

WHEREAS, Article XIV of the Formation Agreement acknowledges that the Parties intended an initial transition term of five years, during which time the Parties were to evaluate the benefits, effectiveness, governance, and operational efficiency of the Authority;

WHEREAS, the governing bodies of each of the Parties and the Authority have determined that the Authority is performing effectively and efficiently, and that it is in the best interests of the Parties, the Authority, and the citizens they serve for the Authority to take title to or hold pursuant to long-term leases the City Fire Property and District Fire Equipment, as well as all real property owned by the District, and the fire equipment and apparatus used by the Canyon Department (collectively, the "Property Transfer");

WHEREAS, the governing bodies of each of the Parties and the Authority have further determined that it is in the best interests of the Parties, the Authority, and the citizens they serve to simplify the procedures for the Parties' payment of costs to the Authority, so as to provide regularity in payment amounts and to reduce the administrative burdens associated with processing and accounting for such payments;

WHEREAS, the Parties desire to enter into this Fourth Amendment to the Formation Agreement ("Fourth Amendment") to accomplish the Property Transfer and payment simplifications; and,

WHEREAS, the Parties agree that all other terms and conditions of the Formation Agreement shall remain in full force and effect.

NOW, THEREFORE, IN CONSIDERATION OF THE MUTUAL COVENANTS CONTAINED HEREIN, AND OTHER GOOD AND VALUABLE CONSIDERATION, THE RECEIPT AND SUFFICIENCY OF WHICH ARE HEREBY ACKNOWLEDGED, THE PARTIES AGREE AS FOLLOWS:

1. That Section 4.1 of the Formation Agreement is amended in its entirety to read:
   Section 4.1 Annual Budget
   The Board shall adopt an annual budget for maintenance and operation costs, capital costs, costs of services, and personnel costs, subject to approval of the annual budget by the Parties' respective governing bodies. The Authority's annual budget shall become effective after approval by the Parties' respective governing bodies without further action required of the Board. Any supplemental budget of the Authority requiring additional contributions by the Parties also shall become effective only after approval of the Parties' respective governing bodies. Supplemental budgets of the Authority not requiring additional contributions by the Parties shall become effective after approval of the Board. The Authority shall comply with all applicable requirements of the Local Government Budget Law of Colorado.

2. That Section 5.1 of the Formation Agreement is amended in its entirety to read:
   Section 5.1 Payment of Costs
   (a) Beginning on January 1, 2016, each Party shall pay to the Authority its respective allocated share of the Authority's total annual contribution to the Consolidated Volunteer Pension Plan (defined in Article X below) ("Pension Plan Share"). Each Party shall pay its Pension Plan Share on or before November 30 of each year. The Parties' Pension Plan Share percentages are equal to their Allocated Share percentages, defined below.
   (b) Beginning on January 1, 2012, each Party shall pay to the Authority its respective allocated share of all of the total estimated costs and expenses of the Authority as set forth in the Authority's approved annual budget ("Allocated Share"); provided that pursuant to subparagraph (a) above, beginning on January 1, 2016, each Party will pay its Pension Plan Share separately, and it will not be part of each Party's Allocated Share. The Parties' Allocated Share percentages are set forth on Exhibit A attached hereto and incorporated by reference.
   (c) In order to provide the Authority with sufficient operating revenue at the start of each year, on January 1 of each year, each Party shall advance one-sixth of its Allocated Share to the Authority ("Annual Advance"). Following payment of the Parties' Annual Advances, each Party shall thereafter remit to the Authority on or before the last day of each month between February and November one-twelfth of its Allocated Share. No portion of a Party's Allocated Share shall be due in December.

3. That Section 6.1 of the Formation Agreement is amended in its entirety to read:
   Section 6.1 Lease of City Fire Real Property
   Effective January 1, 2017, the City shall lease its City Fire Real Property to the Authority for a period of 25 years at a rate of $1.00 per year, with one automatic renewal for an additional successive twenty-five-year period. The City and the Authority shall enter into one or more Lease Agreement(s) in a form mutually acceptable to the City and the Authority. Each Lease Agreement shall give both the City and the Authority the right to terminate such lease at any time for any business reason upon one year's prior written notice to the other party; provided, however,

that if the City terminates the Lease Agreement, it must offer the Authority alternative real property space at the same rental rate for the balance of the initial 25 year term and renewal term. For purposes of this Section 6.1, "City Fire Real Property" shall mean: Fire Station 1, located at 410 E. 5th Street; Fire Station 2, located at 3070 W. 29th Street; Fire Station 3, located at 900 S. Wilson Avenue; Fire Station 4, located at 4900 Earhart Road; Fire Station 5, located at 252 Knobcone Drive; Fire Station 6, located at 4325 McWhinney Boulevard; the Fire Training Facility, located at 100 E. Fire Engine Red Street; and, the Fire Administration Offices, located at 410 E. 5th Street; all in the City of Loveland, Colorado. The District agrees that in the event this Agreement is terminated as provided for herein, that the leases of the City Fire Real Property shall automatically terminate and the City shall be entitled to retake and retain sole and exclusive possession and control of all of the City Fire Real Property without the need for any judicial process to evict the Authority or the District from the City Fire Real Property or in any other manner to take exclusive possession and control of the City Fire Real Property from the Authority or the District.

4. That Section 6.2 of the Formation Agreement is amended in its entirety to read:
Section 6.2 Transfer of City Fire Personal Property
Effective January 1, 2017, the City shall transfer and convey to the Authority all right, title, and interest in and to all apparatus, vehicles, tools, equipment, and all other personal property owned by the City for the purpose of providing fire, rescue, and emergency medical services (collectively, "City Fire Personal Property"); except that the City Fire Personal Property shall not include: (i) the 2005 Freightliner/LDV Mobile Command Vehicle (Fleet #3300), or (ii) any apparatus maintenance tools, or any Opticom or other information technology systems or components owned by the City. The City Fire Personal Property shall be transferred "as-is" with no warranty by the City; provided, that the City shall assign any manufacturer's warranties on any City Fire Personal Property if such warranties are still in force and effect. Conveyance of the City Fire Personal Property shall be accomplished by one or more Bills of Sale in a form mutually acceptable to the City and the Authority. The City shall not receive any monetary consideration for transferring and conveying all right, title, and interest in and to the City Fire Personal Property to the Authority. In the event that any apparatus or vehicle transferred to the Authority as part of the City Fire Personal Property is subsequently sold by the Authority, the proceeds from such sale shall be applied to the purchase of new Authority-owned apparatus or vehicles, or shall be deposited into a dedicated Authority apparatus and vehicle replacement fund.

5. That the Exhibit B: Human Resources, Administrative, and Operational Support Services Provided by the City attached to the Formation Agreement is hereby deleted and replaced by the new Exhibit B: Human Resources, Administrative, and Operational Support Services Provided by the City (Amended December 14, 2016) attached to this Fourth Amendment as Attachment.

6. That Section 7.1 of the Formation Agreement is amended in its entirety to read:
Section 7.1 Transfer of District Fire Personal Property
Effective January 1, 2017, the District shall transfer and convey to the Authority all right, title, and interest in and to all apparatus, vehicles, tools, equipment, and all other personal property owned or leased by the District for the purpose of providing fire, rescue, and emergency medical services (collectively, "District Fire Personal Property"); except that the District Fire Personal Property shall not include any Opticom or other information technology systems or components owned by the District. The District Fire Personal Property shall be transferred "as-is" with no

warranty by the District; provided, that the District shall assign any manufacturer's warranties on any District Fire Personal Property if such warranties are still in force and effect. Conveyance of the District Fire Personal Property shall be accomplished by one or more Bills of Sale in a form mutually acceptable to the District and the Authority. The District shall not receive any monetary consideration for transferring and conveying all right, title, and interest in and to the District Fire Personal Property to the Authority. In the event that any apparatus or vehicle transferred to the Authority as part of the District Fire Personal Property is subsequently sold by the Authority, the proceeds from such sale shall be applied to the purchase of new Authority-owned apparatus or vehicles, or shall be deposited into a dedicated Authority apparatus and vehicle replacement fund.

7. That Article VIII of the Formation Agreement is amended in its entirety to read:
   The District shall continue to maintain and fund the Canyon Department. Set forth on Exhibit C attached hereto and incorporated by reference, is the organizational chart for the Authority which shows the Canyon Department Chief under the operational control of the Authority's Fire Chief. The District shall continue to maintain the Big Thompson Canyon Volunteer Firefighters Pension Fund as a separate pension fund. The Authority and the City shall have no responsibility for the funding of this pension fund or for funding any other costs related to the operation of the Canyon Department.

8. That the Inventory Summary Report: Loveland Rural Fire Protection District attached to the Formation Agreement as part of the Exhibit C thereto is hereby deleted and removed from Exhibit C.
9. That the following new Section 7.3 is added to the Formation Agreement:
   Section 7.3 Lease of District Fire Real Property
   Effective January 1, 2017, the District shall lease its District Fire Real Property to the Authority for a period of 50 years at a rate of $1.00 per year. The District and the Authority shall enter into one or more Lease Agreement(s) in a form mutually acceptable to the District and the Authority. Each Lease Agreement shall give both the District and the Authority the right to terminate such lease at any time for any business reason upon one year's prior written notice to the other party; provided, however, that if the District terminates the Lease Agreement, it must offer the Authority comparable alternative real property space at the same rental rate for the balance of the 50 year term. For purposes of this Section 7.3, "District Fire Real Property" shall mean: Fire Station 8, located at 1461 W Highway 34, zip code 80537; and Fire Station 9, located at 433 Chipmunk Place, zip code 80515. The City agrees that in the event this Agreement is terminated as provided for herein, that the leases of the District Fire Real Property shall automatically terminate and the District shall be entitled to retake and retain sole and exclusive possession and control of all of the District Fire Real Property without the need for any judicial process to evict the Authority or the City from the District Fire Real Property or in any other manner to take exclusive possession and control of the District Fire Real Property from the Authority or the City.

10. That Section 9.2 of the Formation Agreement is amended in its entirety to read:
    Upon termination of this Agreement, the City Council and District Board, or the authorized representatives of each, shall promptly meet and discuss, in good faith, the allocation of the Authority's assets between the City and the District, including all apparatus, vehicles, equipment, tools, cash funds, and all other real or personal property then owned by the Authority, of whatever type or nature whatsoever (collectively, "Authority Assets"). Any Authority Assets acquired by the Authority under this Agreement as the result of a Party's special monetary

contribution, approved by Resolution of the Authority Board and identified in the Authority's fixed asset record, or by a Party's direct conveyance to the Authority, shall be returned to that contributing Party if said assets are still owed by the Authority in the form originally purchased or conveyed. All remaining Authority Assets shall be distributed between the Parties in proportion to their percent of allocation of funding set forth in Exhibit A. The Parties shall strive in good faith to ensure that the allocation of Authority Assets to each Party enables it to provide adequate fire, rescue, and emergency medical services within its boundaries. In the event that the Parties are not able to agree upon the allocation of Authority Assets despite their good faith efforts, then the Authority Assets, or such portion thereof for which the Parties are not able to agree, shall be sold, and the sales proceeds shall be distributed to the Parties in proportion to their percent of allocation of funding set forth in Exhibit A.

11. All other provisions of the Formation Agreement remain in force as written and are unaffected by this Fourth Amendment.

This Fourth Amendment to the Formation Agreement is entered into as of this 14th day of December, 2016.

CITY OF LOVELAND

By: Stephen C Adams
Stephen C. Adams, City Manager

CITY OF LOVELAND SEAL COLORADO

ATTEST:
Teresa S. Andrews
City Clerk

LOVELAND RURAL FIRE PROTECTION DISTRICT

By: Dave Legits, President

ATTEST:
Secretary

Attachment 1
EXHIBIT B

Human Resources, Administrative, and Operational Support Services Provided by the City
(As Amended December 14, 2016)

City Service	Cost Allocation Formula
City Clerk Including without limitation: • Processing City Council agenda items related to the Authority. • Records assistance, including scanning software and guidance on records retention. • Coordination of records destruction.	The City shall determine the total portion of the "City Clerk" budget line item that will be charged to all customer departments ("City Clerk Department Share"). The City shall allocate to the Authority that portion of the City Clerk Department Share as is equal to the proportion of City Council agenda items related to the Authority during the immediately preceding calendar year to the total number of City Council agenda items.
Budget and Finance Including without limitation: • Planning and budgeting City contributions to fire capital improvements. • Processing Authority annual and supplemental budget approval through City Council. • Submitting the Authority's annual and any supplemental budget to the Department of Local Affairs ("DOLA") on behalf of the Authority. • Recording journal entries and budget transfers. • Month-end closing of accounting records. • Year-end closing transactions. • Opening new account and project numbers. • Fixed asset tracking and reconciliations. • External auditing, accounting questions and research. • Including the Authority's financial information in the City's comprehensive annual financial report. Submit the annual financial report to DOLA on behalf of the Authority. • Payroll processing and reconciliation. • Purchasing Card administration as requested by Authority. • Reviewing invoices and documentation, and processing weekly vendor check and ACH payments. • Preparing and filing applicable tax reporting.	The City shall determine the total portion of the "Finance" budget that will be charged to all customer departments ("Finance Department Share"). The City shall allocate to the Authority that portion of the Finance Department Share as has been determined by the most recent time study to be attributable to the amount of time the Finance Department spends working on Authority matters.

• Verification of deposits and bank reconciliation.	
Dispatch Including without limitation: • CAD administration and all dispatching functions.	The City shall determine the total portion of its costs and expenses incurred in operating its dispatching service that will be charged to customer departments ("Dispatch Department Share"). The City shall allocate to the Authority that portion of the Dispatch Department Share as is equal to the proportion of the number of Authority calls dispatched to the total number of calls dispatched.
IT Infrastructure and Telecommunications Including without limitation: • Installing and maintaining all hardware and software for network switches, general and specific Authority use servers, PCs, laptops, mobile display units, status screens, Surface Pros/iPads, printers/copiers, desktop phones, and email system.	The City shall determine the total portion of its administration, infrastructure, and telecommunications costs and expenses incurred in supporting IT units, including network switches, servers, laptops, printers, PCs, phones, mobile data terminals, etc., that will be charged to all customer departments ("IT Unit Department Share"). The City shall allocate to the Authority that portion of the IT Unit Department Share as is equal to the proportion of the number of Authority IT units to the total number of IT units supported by the City. Costs and expenses related to servers, mobile data terminals, etc., that are dedicated to the Authority's use or are shared by the City Police Department and the Authority, will be charged to the Authority either in full for Authority-dedicated units, or proportionately based upon the number of Authority units to the total number of Authority and Police Department units.
IT Application Services Including without limitation: • Business analyst assistance for all software programs for incident reports (such as ETI, OMEGA, Visinet), scheduling and timesheets (such as Telestaff), and financial systems (including payroll). • Geographic Information Systems (GIS) assistance the Authority's mapping requirements.	The City shall determine the total portion of its costs and expenses incurred in hiring and/or contracting with a business analyst and GIS support that will be charged to all customer departments ("IT Application Department Share"). The City shall allocate to the Authority that portion of the IT Application Department Share as is equal to supporting the software and GIS network components utilized by the Authority.
Human Resources Including without limitation: • Administration of random drug testing program. • Employee training (as requested by the Authority). • Title VII and ADA compliance. • Track CDL physicals and license renewals on the provider contract.	The City shall determine and charge the Authority that portion of the City's "Human Resources" budget line item that reflects the City's actual costs in providing the Human Resources services to the Authority.

Facilities Including without limitation: • Performing or contracting for all building maintenance and repair functions at all City Fire Real Property, including painting, HVAC system, roof repairs, cabinet building, cubical reconfigurations, etc. • Contracting and paying for all utilities at the City Fire Real Property, including water, sanitation, sewer, electricity, light, heat, gas, power, fuel, and janitorial; all such services to be charged at the City rate where applicable. • Managing all facilities construction projects within the City's boundaries.	The City shall determine a cost per square foot by dividing the City's total budgeted amount for the operation and maintenance of all City facilities by the total square footage of all City facilities, including the City Fire Real Property ("Square Foot Amount"). The City shall allocate to the Authority an amount equal to the Square Foot Amount multiplied by the total square footage of all of the City Fire Real Property, less a discount mutually agreed upon annually by the City and Authority, reflecting the limited public use of the City Fire Real Property and those janitorial functions provided by the Authority Personnel. If the City and Authority are unable to agree upon the discount amount by August 1, then a 10% discount shall be applied.
Fleet Maintenance Including without limitation: • Performing preventative maintenance and minor repairs on all apparatus and vehicles owned or leased by the Authority ("Authority Fleet"). • Coordinating and managing maintenance or repairs to the Authority Fleet to be made by third party contractors and/or vendors. • Providing fuel supply and access to all City fueling locations to the Authority Fleet as part of the City's fleet fuel contract. • Maintaining life-to-date cost for maintenance by apparatus/vehicle. • Maintaining fuel usage records by apparatus/vehicle.	Maintenance and Repair: The City shall determine the actual cost of any parts ordered or otherwise provided to accomplish any City-provided maintenance or repair, plus any mark-up fee routinely and customarily charged by the City to its own City departments on any such parts ordered or otherwise provided, and the amount of any labor charges based upon a fee-for-service schedule to be mutually agreed upon annually by the City and Authority. If maintenance or repair is made by a third party contractor or vendor, the City shall charge the Authority the actual undisputed amount of such third party's invoice. Fuel: The City shall determine the actual number of gallons and total cost of all unleaded and diesel fuel utilized by the Authority ("Fleet Fuel Amount"). The City shall charge the Authority the Fleet Fuel Amount that is equal to the actual cost of the number of gallons of unleaded and diesel fuel utilized by the Authority, plus any mark-up fee routinely and customarily charged by the City to its own City departments on unleaded and diesel fuel.

Agenda Item Cover

Item No.: 4

Meeting Date: September 27, 2017

Prepared By: Mark Miller, Fire Chief

TITLE

Consider a Motion to Approve and Adopt the Revised Impact Fee Study from BBC Research & Consulting

EXECUTIVE SUMMARY

In order for the Impact Fee process to move forward, there needs it be a formal approval and adoption of the latest BBC Impact Fee study so the process of developing IGA's with the City of Loveland, Larimer County, and Town of Johnstown. Once adopted, BBC can provide a final version that will be incorporated in the IGA approval process with the involved entities.

BACKGROUND

If he Board votes to approve and adopt the BBC study, it is important that the Board understands that adopting the schedule does not establish an impact fee in the Authority. Rather, it only establishes what the amount of the impact fee would be in the event that impact fees are later established in the Authority. In other words, it's a necessary precursor, but has no practical impact in and of itself. As discussed in a previous Board meeting, the BBC study indicated LFRA could charge substantially more than what we are currently collecting for CEF's. However, the Board agreed that it would be prudent to stay with the current fees imposed in the City of Loveland, for all three of the involved entities.

STAFF RECOMMENDATION

Approve and adopt the latest revision of the BBC study, dated May 12, 2017

FINANCIAL/ECONOMIC IMPACTS

Increased revenue to LFRA through the collection of Impact Fees.

ASSOCIATED STRATEGIC GOALS

Deliver cost effective services.

ATTACHMENTS

BBC study dated May 12, 2017

BBC RESEARCH & CONSULTING

Loveland Fire Rescue Authority Impact Fee Study

REVISED DRAFT REPORT

Revised Draft Report

May 12, 2017

Loveland Fire Rescue Authority Impact Fee Study

Prepared for:
Loveland Fire Rescue Authority
410 East 5th Street
Loveland, CO 80537

Prepared by:
BBC Research & Consulting
1999 Broadway, Suite 2200
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BBC RESEARCH & CONSULTING

Table of Contents

SECTION I.

Impact Fee Design Considerations

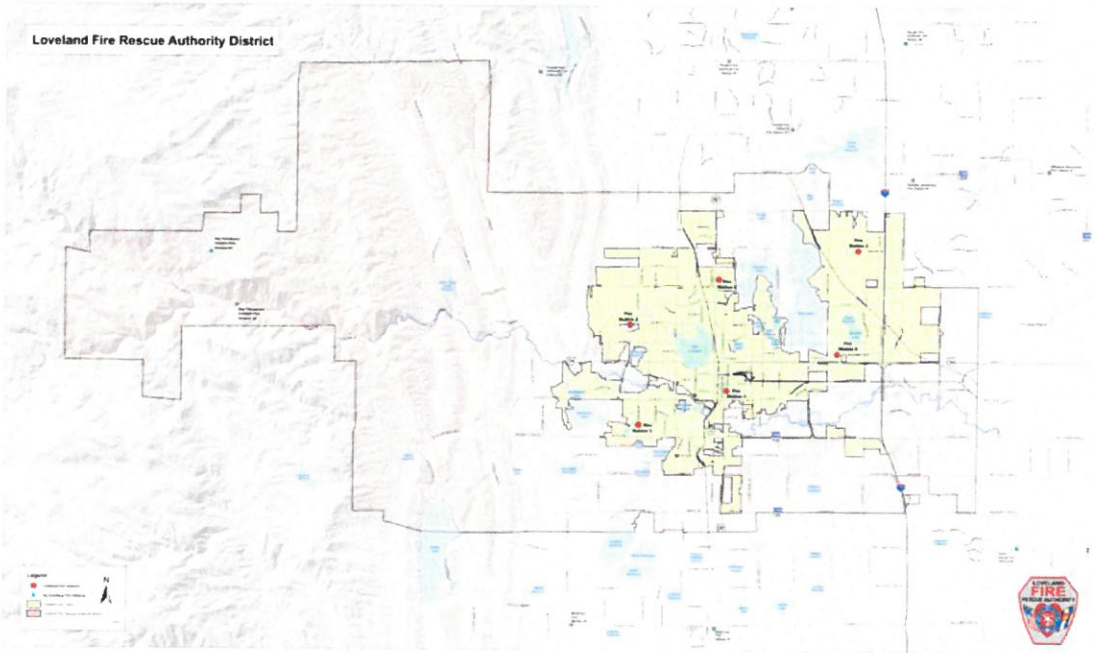
SECTION I.
Impact Fee Design Considerations

This report presents the analysis underlying calculation of proportional development impact fees (or capital expansion fees) for the Loveland Fire Rescue Authority (LFRA). Section I describes fee design requirements and various implementation considerations and Section II presents the fee calculations.

Background and Objectives

LFRA provides fire, rescue and emergency medical services as well as public education in Larimer County, serving the City of Loveland, a portion of the Town of Johnstown and parts of unincorporated Larimer County, as shown in Figure I-1. LFRA services a total area of 190 square miles, including both urban and rural land uses, and responded to roughly 7,900 calls in 2016.

Figure I-1.
Loveland Fire Rescue Authority Service Area



Source: LFRA.

LFRA has traditionally collected impact fees on development within the City of Loveland but not in Johnstown or unincorporated Larimer County. In 2017, LFRA contracted BBC Research & Consulting (BBC) to conduct an impact fee study for the entire LFRA service area. This report calculates fees that would recover the proportional capital costs associated with all forms of new development in the LFRA service area as a whole.

Impact Fee Design Requirements

There is no universally accepted definition of impact fees, but most studies emphasize the fee's one time use; application to new development; design requirements for proportionality; and restricted use for infrastructure expansion purposes only:

> *"Fees collected through a set schedule or formula, spelled out in a local ordinance....fees are levied only against new development projects as a condition of permit approval to fund infrastructure needed to serve the proposed development. Impact fees are calculated to cover the proportionate share of the capital costs for that infrastructure...[1]"*

The key requirements of impact fee design are set by Colorado Statute and a series of United States Supreme Court rulings.

Colorado requirements. Colorado statutes enable the use of impact fees and dictate the following fee requirements:

- Impact fees are a one-time payment levied on new development;
- Funds can only be used for growth-related capital infrastructure projects;
  - Applicable infrastructure must have at least a five year life;
  - No funds can be diverted for operations, maintenance, repair or facility replacement purposes;
- Fee revenues must be segregated from other general revenues and used for the purposes for which they were collected;
- Fees must be imposed on all forms of development and cannot be limited to one type of land use;
- Impact fee revenues must be used for capital infrastructure expansion. No funds can be used for correction of existing system deficiencies; and
- There must be a reasonable expectation of benefit by the fee payer.

U.S. Supreme Court decisions. Impact fee design must also respect broad guidance offered by a series of United States Supreme Court rulings. The two most notable court decisions that speak to impact fee design and constraints on fee use are often referred to as *Nollan*[2] and *Dolan*[3].

Guidance from these decisions requires that there be an "essential nexus" between the exaction/fee and the state interest being advanced by that exaction. In the more recent *Dolan v.*

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[1]Juergensmeyer, Julian C., and Thomas E. Roberts. Land Use Planning and Development Regulatory Law. St. Paul, MN: WestGroup, 2003; and ImpactFees.com, Duncan Associates, 20 February 2008.

2 Nollan v. California Coastal Commission, 483 U.S. 82; 1987 and Dolan v. City of Tigard (1994) 114S.Ct. 2309.

3 *Dolan v. City of Tigard* (1994) 114S.Ct. 2309

City of Tigard (1994) decision, the U.S. Supreme Court held that in addition to an essential nexus, there must be a "rough proportionality" between the proposed exactions and the project impacts that the exactions are intended to mitigate. In *Dolan,* the court further states that rough proportionality need not be derived with mathematical exactitude but must demonstrate some relationship to the specific impact of the subject project:

> *"We think a term such as 'rough proportionality' best encapsulates what we hold to be the requirements of the Fifth Amendment. No precise mathematical calculation is required, but the city must make some sort of individualized determination that the required dedication is related both in nature and extent to the impact of the proposed development."*

Over the past two decades since *Dolan,* many communities have imposed impact fees; thus, there now is a broad set of common practices when considering how best to reflect these judicial and statutory requirements in fee design efforts.

Fee Applicability

As noted above, impact fee revenues can only be used to cover the expansion costs of public infrastructure needed to serve new development and fee amounts can only be set to recover the cost infrastructure expansion that is proportional to the needs of the new project.

Public infrastructure. *Public or capital infrastructure* is the physical component of public services, generally including buildings, facilities and related improvements, such as parking, lighting, ball fields or other support facilities. Capital infrastructure includes streets, parks, administrative facilities, specialized fire or police buildings, and developed recreation facilities. Under Colorado statute infrastructure can include all equipment that has at least a five-year lifetime. It does not include personnel or any element of service costs even in circumstances where new staff is required to operate the new facilities.

Nature of infrastructure investments. In considering fee requirements, it should be noted that not all capital infrastructure costs are associated with community growth or with the expansion of facility capacity. Most communities make frequent infrastructure investments regardless of growth pressures for repair and replacement of facilities. Communities considering impact fees must recognize three elements of infrastructure needs:

- **Repair and replacement of facilities.** The expense of maintaining current facilities, such as annual building maintenance, or replacing a roof.
- **Betterment of facilities.** Implementation of new services or improvement of existing facilities (e.g., adding better training equipment at a recreation center) without increasing service capacity.
- **Expansion of facilities.** e.g., expanding an existing city hall to accommodate growing personnel requirements occurring in association with community growth.

Impact fees can only cover those infrastructure costs associated with the expansion of facilities to serve the needs of new growth.

Other Fee Design Considerations

Over time a reasonable consensus has emerged as to how best to assure fee compliance with state statute and federal court dictates. In order to develop fees, there are three basic components: definition of community standards; calculation of proportional attribution to new growth and attribution of infrastructure needs across all major land uses. These issues and their resolution for this analysis are discussed below.

Setting community standards. The first fee design issue involves determining appropriate capital standards for each category of infrastructure. Some states' enabling legislation describes capital standard criteria with specificity; for instance, Idaho requires that a city use an endorsed capital improvements schedule and then a process of attribution between growth related and other investments—Colorado does not have this same detailed guidance. Facility standards, such as library space per household or recreation facilities per household, can vary widely between communities; thus, it is not appropriate to use standards developed for other towns, or standards applied nationally.

Calculation methodology. There are two common methodologies employed in order to meet the standards described above, the current service standard (capital buy-in) and the capital improvement (plan-based):

- Typically, the buy-in fee design process involves documenting the replacement value of specific capital facilities and qualified equipment used for each category of infrastructure, and then defining that level of investment as the city's capital standard. For instance, a city of 2500 homes with a 20,000 square foot recreation center (capital replacement value of $5.0 million) would have a recreation center standard of 8 square feet per housing unit (20,000 sq. ft./2,500 homes = 8 sq. ft. per home). At $250/square foot (replacement value of equivalent space), each existing residence would have an embedded recreational investment of $2,000 per home. This would be the community's present facility standard and this is what each new unit could be charged as a "buy-in" amount for a recreational impact fee.

- In the plan-based fee methodology, the cost of new infrastructure is allocated to new growth in proportion to that growth's anticipated demand of the infrastructure. This forward looking approach requires forecasts of households and commercial growth and detailed data on capital expansion plans. For infrastructure to be eligible for inclusion in the impact fee calculation, it must meet the requirement that only items with a useful life of five years or more are designated a fee-eligible capital asset, per CRS 29-20-104.5.[4] Any improvements used to address current service deficiencies or increase the level of service cannot be included in the fee calculation—in other words, the fee calculations must take into account the current level of service and exclude any elements of the plan that would result in a higher level of service.

[4] Impact Fee Enabling Statute: *CRS 29-20-104.5. Local Government Regulation of Land Use.*

BBC used the capital buy-in approach to calculate the impact fees presented in this report. This decision was mutually agreed upon by BBC and the LFRA as it provides the most assurance that the current level of service will be extended to new development within the service area.

Adjustments for debt. Since facility standards are defined by a community's demonstrated investment in infrastructure, calculations of community standards must recognize, and net out, any applicable debt. Debt service will be paid by all future residents—new and old; it's not appropriate to charge new development a front end impact fee and then charge the same development again, after becoming residents or property owners, requiring them to also pay the remaining equity and interest costs. All capital infrastructure amounts used in the fee calculations are free of any debt financed components.

Fee design cost-recovery. The cost of this study can be recovered through fees and used to reimburse the general fund. Fee design costs have been included in the Authority's infrastructure valuation.

Proportionality. As part of the fee design process it is necessary to ensure that fees only cover the proportional expansion costs caused by new development. The state statutes and aforementioned court decisions require a demonstration of proportionality. In this instance, by using existing infrastructure and service population, then requiring new development to pay fees at an amount scaled by the current level of service, proportionality is reasonably and fairly derived.

Allocation by land use. The courts have indicated that all forms of development that have facility impacts (residential, industrial and commercial) must pay their fair share of expansion costs. If one land use is exempted from fees all other land uses have no reasonable expectation of seeing facility expansion completed. Quantification of current residential, commercial, industrial and related non-residential land uses is obtained from the county assessor's data.

Use specificity. Impact fee systems vary in how precisely they differentiate between varying forms and size of residential development and varying uses of commercial buildings. Detailed non-residential use or other specificity is merited when there is there is compelling evidence that use or size variations reflect substantive difference in the demand for public services. The proposed fee structure for LFRA incorporates a four-tiered structure that assesses single family residential by unit, multifamily residential by unit, industrial facilities by the square foot and all other commercial by the square foot.

Redevelopment/credits. Application of impact fees raises a series of questions about how to approve redevelopment of existing properties and the circumstances under which fees can be waived or adjusted. The redevelopment of a residence, even a complete demolition and home reconstruction, does not mean an increase in public service costs—it is still one residential unit with little or no implications for service delivery costs or capital needs. Redevelopment of larger lots with multiple homes would be assessed a fee based on the number of net new residences. Similarly, non-residential redevelopment will only be charged on the basis of net new space.

Waivers. The Authority should not waive impact fees unless the fund is reimbursed from other sources such as the general fund or the developer/owner is making other contributions to system expansion by other mechanisms that meet or exceed the calculated requirements.

Timing. Generally impact fees are collected either at the time of building permit or at the issuance of a certificate of occupancy. BBC recommends the Authority collect impact fees at the time of building permit, which allows the Authority more time to extend service.

Updating. Fees should be updated periodically; most communities update fees every five years. Inflationary adjustments are recommended on an annual basis.

SECTION II.

Impact Fee Calculations

SECTION II.
Impact Fee Calculations

This section documents the derivation of impact fees for LFRA.

Impact Fee History in Loveland

For decades, Loveland has relied primarily on capital expansion fees as a mechanism for recovering the costs of providing municipal infrastructure to an expanding residential, commercial and industrial base. In light of renewed interest in development and the prospect of considerable future development activity, the city council is considering updating the suite of capital fees as part of its larger strategy to ensure that growth pays its own way and that existing residents and existing services are not financially burdened by new growth.

Loveland's long history with capital expansion fees dates back to the period of 1982-1984, when BBC worked with the city to create the Loveland Capital Expansion Fee system, which was modeled after established practices in electric rate design and water utilities. The resultant Loveland system won the American Planning Association award for the most innovative new financing system in the county. This was in essence the first comprehensive impact fee system in Colorado and one of the first in the country. BBC has since updated the system many times, expanding coverage and modifying calculations based on subsequent Supreme Court rulings. Loveland owes much of its current infrastructure and its attractiveness to businesses and residents to its early foresight in establishing a fair cost recovery system.

LFRA has traditionally collected impact fees on development within the City of Loveland but not in Johnstown or unincorporated Larimer County; however, the Authority is now interested in implementing an impact fee system for the service area as a whole. With impact fees, new development pays only their equitable pro rata share of new infrastructure required to serve them while existing taxpayers will not subsidize growth. Extending the impact fee system to apply to the entire district assures current residents that new growth in all part of the district is paying its own way and that the Authority's capital and operating funds will be reserved for fiscally appropriate, non-growth related uses.

Impact Fee Calculations

BBC's methodology for LFRA's impact fee includes the following tasks:

1. Quantify the fire infrastructure standards and investments needed to maintain the current level of service;

2. Develop estimates of calls for service by land use within the service area; and

3. Calculate the fire protection infrastructure costs per unit of development (per household, or per square foot of commercial development).

Fire infrastructure. A conservative method of establishing the Authority's current level of service for fire protection is to quantify its financial investment in infrastructure and capital equipment. Specifically, LFRA has five types of capital infrastructure related spending that should be included in a calculation of current infrastructure investment:

- Land and buildings including eight stations and training grounds;
- Major apparatus such as fire engines and specialized vehicles located at each station;
- A variety of life-saving and fire-fighting apparatus located at individual fire stations or on pieces of equipment;
- Business personal property such as fire station and office furniture, computers and related durable assets; and
- Capital expansion fee related investments including the cost of this study and the Capital Expansion Fee fund balance.

Figure II-1 on the following page presents the Authority's current capital infrastructure. Replacement values are based on information provided by LFRA, including a detailed description of the Authority's capital assets from Colorado Special Districts Property and Liability Pool. Land values of each station are based on Larimer County Assessor's data on the actual value (dollars per acre) of similar and nearby properties.

As discussed earlier in this report, only the Authority's equity share of assets can be included in the impact fee calculation (i.e., debt used to finance fire stations or vehicles must be excluded). Presently, the Authority is internally financing equipment previously owned by the Loveland Rural Fire Protection District that needed to be replaced (one type 3 engine and three type 6 engines) using money that had been accumulated for apparatus replacement. This $1,500,000 in debt is excluded from the impact fee calculation and is reflected in Figure II-1 as the 79.5 percent "portion to include in impact fees" on fire trucks and tankers.

The total replacement value of the Authority's current capital infrastructure is approximately $34.1 million, $32.6 million of which is eligible to be included in the impact fee calculation.

Figure II-1.
Loveland Fire Rescue Authority's Current Assets

Type of Capital Infrastructure	Allocated Replacement Value	Portion to Include in Impact Fees [1]	Allocated Replacement Value [2]
Buildings and Land			
Station 1 and Fire Administration	$4,074,520	100%	$4,074,520
Station 2	$4,424,673	100%	$4,424,673
Station 3	$1,478,930	100%	$1,478,930
Station 4	$287,803	100%	$287,803
Station 5	$1,264,390	100%	$1,264,390
Station 6	$2,947,377	100%	$2,947,377
Station 8	$649,585	100%	$649,585
Station 9	$405,249	100%	$405,249
Fire Training Grounds	$3,713,955	100%	$3,713,955
Vehicles			
Fire Trucks and Tankers	$7,318,074	79.5%	$5,818,074
Pickups and SUVs	$905,447	100%	$905,447
Trailers and other vehicles	$201,775	100%	$201,775
Fire Equipment and Business Property			
Station and office business personal property	$880,252	100%	$880,252
Radios	$1,418,597	100%	$1,418,597
SCBAs	$450,187	100%	$450,187
Turnout Gear	$654,992	100%	$654,992
Search and Rescue (dive and urban)	$472,823	100%	$472,823
Other equipment	$930,836	100%	$930,836
Impact Fee Fund and Study			
CEF Fund Balance	$1,608,997	100%	$1,608,997
Cost of Nexus Study Update	$6,400	100%	$6,400
Total Value of Fire Infrastructure for Fee Calculation	**$34,094,862**		**$32,594,862**

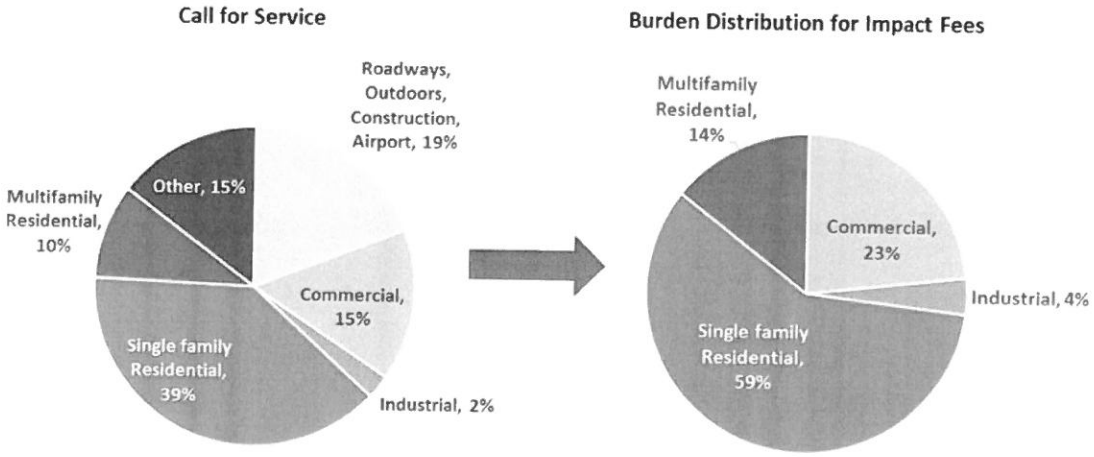
Note: (1) Reflects the District's equity in each piece of capital infrastructure net of any outstanding debt service obligation.
(2) District equity * replacement value = allocated replacement value.

Source: Loveland Fire Rescue Authority, Colorado Property a Liability Pool insurance program and BBC Research & Consulting.

Demand for services by land use. Demand for services is not always equal across different land uses. BBC used existing calls for fire and EMS service as a proxy for demand in the fee calculations. In order to mitigate operational "busy-ness" (year-to-year fluctuations), BBC evaluated three years (2014 through 2016) of call data to determine the average distribution. Figure II-2 displays LFRA's calls for service by land use category. Calls classified as "Roadways, Outdoors, Construction, Airport" and/or "Other" cannot be attributed to a specific land use and are excluded from the impact fee calculation model.

Over the three-year period, there were over 22,000 calls for service to LFRA. After calls that cannot be classified by land use are excluded, 59 percent were to single family residential units, 14 percent were to multi-family residential developments, 23 percent were to commercial developments and 4 percent were to industrial developments.

Figure II-3.
Calls for Service (2014-2016) and Burden Distribution for Impact Fee Calculation



Note: Roadways, Outdoors, Construction, Airport and Other categories cannot be assigned to development type and are therefore excluded from the impact fee calculation.

Source: LFRA and BBC Research & Consulting.

Impact fee calculation. Figure II-4 uses the Authority's current service standards and infrastructure replication costs to determine appropriate household and commercial fees. The District's calls for service by location category is used as a reasonable proxy for the assignment of costs to particular types of development.

Full cost-recovery impact fees for LFRA, total $648 per single family residential dwelling unit and $427 per multifamily dwelling unit. Commercial fees total $0.46 per square foot and industrial fees total $0.11 per square foot. The District can choose to charge less than this amount but discounts must be uniformly applied to all land use categories.

Figure II-4.
Fire and Emergency Service Impact Fees

Source:
BBC Research & Consulting, 2017.

Calculation of Impact Fees	
Value of Fire Infrastructure	$32,594,862
Burden Distribution (based on calls for service)	
Commercial	23.3%
Industrial	3.7%
Single family	58.6%
Multifamily	14.5%
Costs by Category	
Commercial	$7,579,588
Industrial	$1,195,277
Single family	$19,107,745
Multifamily	$4,712,252
Existing Development	
Commercial (in square feet)	16,519,854
Industrial (in square feet)	10,637,091
Single family (in dwelling units)	29,490
Multifamily (in dwelling units)	11,038
Impact Fee by Land Use	
Commercial (per square foot)	**$0.46**
Industrial (per square foot)	**$0.11**
Single family (per dwelling unit)	**$648**
Multifamily (per dwelling unit)	**$427**

Summary and Recommendations

The fees listed in Figure II-3 should be considered full cost recovery amounts, although it is recognized that the Authority may choose not to adopt fees as high as the maximum defensible amounts set forth in this analysis.

We also offer the following recommendations for your consideration:

- The Authority should continue to maintain the Capital Expansion Fee Fund separate and apart from the General Fund, withdrawn only to pay for growth-related infrastructure.
- The Authority should adhere to a written policy governing its expenditure of monies from the Capital Expansion Fee Fund. The Fund should be prohibited from paying for operational expenses including the repair and replacement of existing infrastructure not necessitated by growth. In cases when new infrastructure is expected to partially replace existing capacity and to partially serve new growth, cost sharing between the General Fund and Capital Expansion Fee Fund should be allowed on a pro rata basis as determined by LFRA's board.
- The fees calculated in this study should be updated periodically as the Authority invests in additional fire protection infrastructure beyond what is listed in Figure II-1, and/or the Authority's population or inventory of commercial square footage change significantly.

- The fees should continue to be updated annually based on established inflation indices, such as the Consumer Price Index or the Engineering News Record.
- Finally, consider a fee amount that balances infrastructure needs with economic development goals.

City of Loveland
Fire & Rescue Plan Based Fee Calculation

Calculation of Impact Fees	
Value of Future Fire Infrastructure	$26,756,373
Future Burden Distribution (calls for service)	
Single family	60%
Multifamily	15%
Commercial	22%
Industrial	3%
Costs by Land Use Category	
Single family	$16,076,021
Multifamily	$3,964,584
Commercial	$5,873,570
Industrial	$842,199
Future Develoment through 2032	
Single family (in dwelling units)	14,103
Multifamily (in dwelling units)	5,279
Commercial (in square feet)	5,972,592
Industrial (in square feet)	2,531,624
Impact Fee by Land Use (rounded)	
Single family (per dwelling unit)	**$1,140**
Multi-family (per dwelling unit)	**$751**
Commercial (per square foot)	**$0.98**
Industrial (per square feet)	**$0.33**

Existing Fee
$888
$753
$0.61
$0.08

	Existing Develoment	Future Development: 2032 (15 year)		
		Growth rate	Total	New Growth
Single family (units)	29,490	47.8%	43,593	14,103
Multifamily (units)	11,038	47.8%	16,317	5,279
Commercial (square feet)	16,519,854	36.2%	22,492,446	5,972,592
Industrial (square feet)	10,637,091	23.8%	13,168,716	2,531,624

Facilities and Capital Investment Plan through 2032 (15 years)

Figure only includes expansion-related investments (i.e., excludes repair, replacement, renewal)

	Amount	X	Growth Percentage	=	Amount to include in fees
New Station #10	5,300,000		100		5,300,000
Apparatus for Station #10	1,079,120		100		1,079,120
Station #5 Addition*	1,375,000		100		1,375,000
Apparatus for Station #5 Addition	500,000		100		500,000
New Fire Station #11	4,600,000		100		4,600,000
Apparatus for Station #11	1,500,000		100		1,500,000
New Fire Station #7	4,600,000		100		4,600,000
Apparatus for Station #7	1,200,200		100		1,200,200
Equipment for New Stations	1,386,162		100		1,386,162
Training Center**	9,603,505		71		6,818,489
Debt Service Cost					
Impact Fee Study	$6,400		100 %		$6,400
Minus CEF Fund Balance	$1,608,997		100		1,608,997
Total	**$29,541,390**				**$26,756,373**

Notes:

* Repair & Renewal for Station 5 is excluded

**Training Center includes only the value of the expansion, which is calculated by netting the value of the current T

Agenda Item Cover

Item No.: 5

Meeting Date: September 27, 2017

Prepared By: Kristen Cummings, Business Services Coordinator

TITLE

Review Briefing Papers and Correspondence

EXECUTIVE SUMMARY

The Chief's report includes a variety of general updates from the Monthly Report and more current topics of interest.

August Monthly Reports

- August Overview
- Administrative & HR Matters
- Promotions & Hiring
- The Eclipse
- Red Bandanna
- Fire Operations Division Overview
- Community Safety Division Overview

Additional Topics For Board Update

- Chief's Report
- Update on Station 7 Land Purchase/asbestos testing
- Impact Fee Update – IGA's in process
- Staffing funding for station 7

BACKGROUND

This section of the agenda is intended to provide general information to keep board members apprised of various project status and department updates.

AGREEMENTS SIGNED DURING THE MONTH

STAFF RECOMMENDATION

N/A

FINANCIAL/ECONOMIC IMPACTS

N/A

ASSOCIATED STRATEGIC GOALS

N/A

ATTACHMENTS

- Fire Chief's Monthly Report
- August Operations Statistics
- August Community Safety Division Statistics
- Letters & Articles

MONTHLY REPORT

August 2017

FIRE ADMINISTRATIVE DIVISION

by Fire Chief Mark Miller

OVERVIEW

August Leadership Truism

"The race is not always won by the swiftest, but often those with the rare quality of stick-to-itiveness."

ADMINISTRATIVE & HR MATTERS

LFRA presented the 2018 Budget to the LFRA Board on August 31. The budget was approved unanimously, and it will now go the Rural District Board of Directors on September 6, and then on the City Council as part of the normal budget approval process. As always, the Board was supportive of the budget as a whole, with high priority on doing what is best for our members in regards to safety, benefits, and equipment. Many thanks to Cheryl Cabaruvias for her focus and commitment to the budget development.

Other administrative matters include:

- Exciting progress being made on new Intranet site for LFRA, with hope to go live in the next 30 days
- Securing DOLA reimbursement for the Firefighter Heart Trust - $14,000
- Review and revise City cost allocation expenditures
- The Red Bandanna Day event/remembrance is scheduled for September 11. A Red Bandana Day Proclamation will be read at the September 5th City Council meeting, as well as the LFRA Board meeting on August 30th along with the Rural District Board meeting on September 6th. Special thanks to Good Samaritan Executive Director Lisa Melby and Chaplain Doug Overall, for organizing the Proclamations and the actual event on September 11th by providing breakfast burritos for all first responders (Police Fire and EMS). Thank you! (see the Proclamation below)

PROMOTIONS & HIRING

Due to vacancies created with the advent of the new Administrative/Support Battalion Chief, LFRA conducted two promotional assessments, one for Battalion Chief and one for Lieutenant. I'm pleased to announce that Eric Klaas will be promoted from Captain to BC, and Nick Bukowski will be promoted from Engineer to Lieutenant.

In addition, we filled the firefighter vacancy by hiring Melissa Gillen, who comes to us from Windsor-Severance Fire Protection District. Congrats Eric, Nick and Melissa!!

THE ECLIPSE

LFRA, like many agencies braced for worst-case scenarios regarding the eclipse on August 21. Fortunately, we did not experience any significant or large-scale events, other than some traffic related incidents, and limited cell phone service due to the mass cell phone usage during the event.

We can all agree, it was an incredible event, and wherever you were, it perhaps reinforced the fact, we live in an amazing universe, and provided humbling perspective on what we all too often take for granted…the warmth and power of the sun!

Staff at the Fire Administration Building admiring the eclipse

FIRE ADMINISTRATIVE DIVISION

by Fire Chief Mark Miller

PROCLAMATION

WHEREAS first responders risk their own safety in the execution of their duties to protect the public on a daily basis; and

WHEREAS first responders are the first line of defense for the public against threats, both domestic and foreign; and

WHEREAS first responders stand at the ready to come to the aid of the citizens of the United States of America 24 hours a day; and

WHEREAS first responders are a vital part of our communities, not only standing ready to deal with emergencies, but also volunteering in our schools and with community organizations; and

WHEREAS individuals, both volunteer and career, from police, fire or emergency medical services, professionally and compassionately render 24/7 services to Good Samaritan Society - Loveland Village.

NOW, THEREFORE, we, the City Council of Loveland, do hereby proclaim September 11, 2017 as

FIRST RESPONDERS RED BANDANNA DAY

at Good Samaritan Society-Loveland Village.

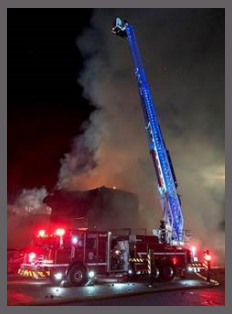
Signed this 5th Day of September, 2017.
Cecil A. Gutierrez, Mayor

FIRE OPERATIONS DIVISION

by Division Chief Greg Ward

SIGNIFICANT INCIDENT RESPONSES

August 6, 2017



Tower 6, Chief 7 and Chief 3 responded to a mutual aid request from Windsor-Severance Fire Rescue for a large commercial structure fire in downtown Windsor. LFRA operated on scene for several hours assisting with brining the fire under control.

August 17, 2017

LFRA Firefighter Samuel Leighton was deployed as part of a Colorado Division of Fire Prevention and Control Type 2 Wildland Firefighting Hand Crew. This crew was assigned to the Tamarack Fire near Libby Montana. Firefighter Leighton spent fourteen days working as part of this crew.

August 26, 2017

Multiple LFRA Crews worked to contain a wildland fire on Ellis Ranch Road, the fire burned just over one acre of grass and shrubs. No structures were immediately threatened.

August 27, 2017

Crews were dispatched to an injured rock climber in the Storm Mountain area of the Canyon Battalion. The patient suffered a fractured ankle from a fall. Rescue personnel from LFRA and Larimer County Search and Rescue worked for approximately four hours to rescue the patient.

COMMUNITY SAFETY DIVISION

by Division Chief Ned Sparks

UPDATE / OVERVIEW

DRT Managers – Continual work on improving the review process with Managers workgroup. Review of problem areas between Departments and Divisions – latest topic is when to engage City Legal and LPD in the process.

Special Event Site Inspections – Arise Music Festival; Larimer County Fair; Sculpture, Art and Craft shows; Corn Roast Festival; multiple large tent inspections throughout the month.

Northern Colorado Fire Marshals Meeting – discussion on fire sprinklers and state requirements for contractors, development of Fire Inspector certification for firefighters, review of the current method used to share hydrant flow data with fire sprinkler contractors – the time has come to get out of the middle of the process and have the contractors work directly with the water purveyors.

Budget Request – Continued review of information and sharing the need for inspector / pub ed person. This is not going through in 2018, but if the economy is the same, we will ask for the position again in 2018.

Thompson School Education Coalition - about the upcoming 1st grade visits. The program has changed due to the OT expense. The trailer will not be used and on-duty crews will participate with the teaching. The schedule is nearly completed and will be posted on the events calendar.

CODE ENFORCEMENT

Parkway Products - Continuation of the issues with magnesium storage and processing. CSD has been working with this company, which uses magnesium pellets in a thixomolding process to produce magnesium alloy products for military and health-care uses. The building has large quantities of magnesium, which is a combustible metal; combustible metal fires can produce an exothermic reaction, causing large explosions. A fire protection engineering firm completed its Fire Code analysis in July. The analysis provides several steps the business must complete to make the building and process safer for its employees, neighbors and emergency responders. CSD is working with Parkway Products to determine a timeline to complete the measures. We are also including Operations staff from LFRA and WSFPD to pre-plan a fire incident at the site.

Larimer Humane Society- Continuation of problem with fluctuating water pressure that affects the performance of both the domestic water system and fire-sprinkler system. CSD is working with the Humane Society, Larimer County, Fort Collins – Loveland Water District, Front Range Fire and Ditesco Engineering to resolve the ongoing issue - Fire Sprinklers design and operation based on pressure fluctuations. FCLWD has increased the water pressure 10 psi in the area via valves and is working with Front Range Fire to alter a backflow device that will add an additional 10 psi.

EMERGENCY MANAGEMENT

Operations & Maintenance - The August 21st solar eclipse incident management team event successfully facilitated the associated traffic surge and the impact consequences. Internet services in northern Colorado were significantly slowed down during the eclipse but no operational impact was experienced by the City of Loveland or by the county's emergency operations center (EOC). Extremely heavy returning traffic was expected and did occur without major challenges. The distribution of Government Emergency Telecommunications Service (GETS) cards to all city key staff was completed. Card holders were given a brief refresher on how and when to use the cards.

Planning and Documentation - June Richard continues to conduct the crosswalk of the Loveland Emergency Operations Plan (LEOP). We have adjusted our planning goal to include the completion of this crosswalk and to begin the actual revision work for the LEOP.

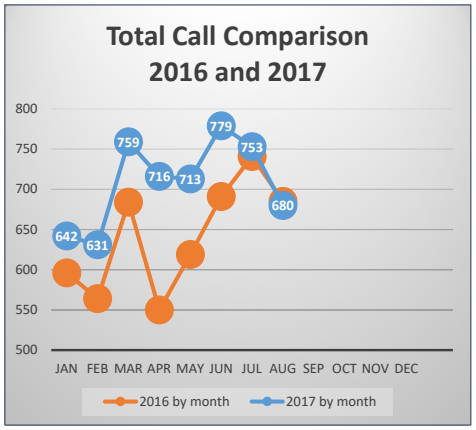
Preparedness & Relationships - Pat was invited to conduct an accreditation evaluation of a state emergency management program on behalf of the Emergency Management Accreditation Program (EMAP). The exposure to other EM programs allows us to continue to stay engaged with best practices. Planning efforts are on-going for the October 7th preparedness expo.

Grants - Several pre-applications were submitted for mitigation projects and the state has given preliminary feedback that two requests may qualify to move forward: wildland fire fuel mitigation program and an emergency generator for the Fleet Maintenance building. The full applications are being worked on for submittal in September.

Training & Exercises - The After Action Report and Improvement Plan for the Thompson School District's tabletop exercise was completed and distributed to the school admin staff.The After Action Review was conducted for the 2017 Young Women Xplore Fire Academy. AIMS CC indicated that there is a high probability of conducting this academy annually.

LOVELAND FIRE RESCUE AUTHORITY

Operations Division - August 2017



TOTAL CALLS FOR SERVICE - 2017 YEAR TO DATE

	Total Calls	City	Rural: Johnstown	Rural: Rural	Auto-Aid/ Mutual Aid	City % (With Mutual Aid Split)	Rural % (With Mutual Aid Split)
# Incidents	5676	4570	179	722	199	83.39%	16.50%
			901				
Percentage		80.51%	15.87%		3.51%		

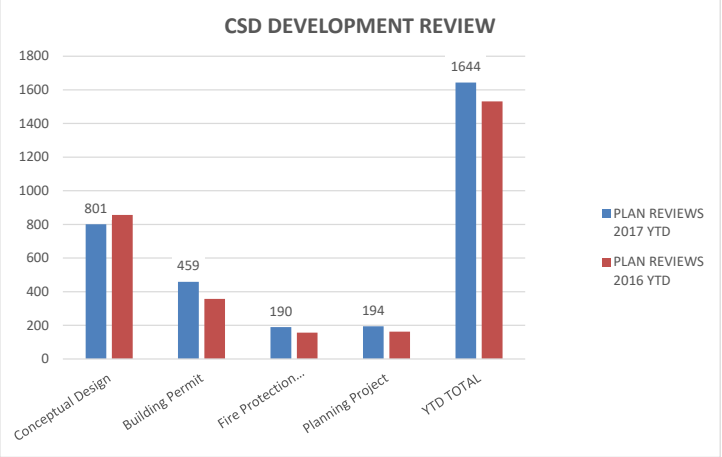
	Total Calls for Service (CFS)	# CFS City	Rural District: # CFS Johnstown	Rural District: # CFS Rural (Minus Johnstown)	Rural District: # CFS Rural Total	# CFS Mutual Aid	Undefined	% CFS City	% CFS Rural	% CFS Mutual Aid	City % (With Mutual Aid Split)	Rural % (With Mutual Aid Split)
August	680	532	*30*	94	124	23	1	78.24%	18.24%	3.38%	**81.01%**	**18.84%**
July	753	594	24	105	129	30	0	78.88%	17.13%	3.98%	**82.15%**	**17.85%**
June	779	611	36	101	137	29	2	78.43%	17.59%	3.72%	**81.49%**	**18.26%**
May	713	583	12	94	106	24	0	81.77%	14.87%	3.37%	**84.53%**	**15.47%**
April	716	588	24	81	105	23	0	82.12%	14.66%	3.21%	**84.76%**	**15.24%**
March	759	613	21	99	120	24	2	80.76%	15.81%	3.16%	**83.36%**	**16.38%**
February	631	518	17	71	88	27	2	82.09%	13.95%	4.28%	**85.60%**	**14.72%**
January	642	530	18	77	95	17	0	82.55%	14.80%	2.65%	**84.73%**	**15.27%**

TRAINING CATEGORIES	FULL-TIME STAFF TRAINING HOURS: CURRENT MONTH	PREVIOUS MONTH	CURRENT YEAR TO DATE	PREVIOUS YEAR TO DATE	CANYON TRAINING HOURS: CURRENT MONTH	PREVIOUS MONTH	CURRENT YEAR TO DATE	PREVIOUS YEAR TO DATE
ARFF	58.5	16.0	354.0	285.3	0.0	0.0	4.5	Data Not Available
Community Safety	4.0	0.0	455.0	725.0	0.0	0.0	0.0	
Driver/Operator	112.5	183.3	1,608.2	1,254.1	0.0	0.0	19.0	
EMS	212.0	94.5	1,058.0	887.5	0.0	0.0	9.0	
Firefighter	258.0	222.0	3,291.0	3,445.0	15.0	25.8	90.8	
Fire Officer	171.0	82.0	1,718.0	1,742.6	0.0	0.0	2.0	
HazMat	2.0	0.0	480.2	361.3	0.0	8.0	8.0	
TacFire	0.0	24.0	90.0	48.0	0.0	0.0	0.0	
Tech Rescue	166.5	192.5	1,157.0	1,998.4	0.0	0.0	3.5	
Wildland Fire	5.0	8.0	1,880.2	1,008.5	0.0	0.0	139.5	
Other	29.0	192.0	1,285.4	670.3	0.0	4.0	4.0	
TOTAL	1,018.5	1,014.3	13,376.9	12,425.8	15.0	37.8	280.3	0.0

LOVELAND FIRE RESCUE AUTHORITY
Community Safety Division
August, 2017

DEVELOPMENT REVIEW STATISTICS

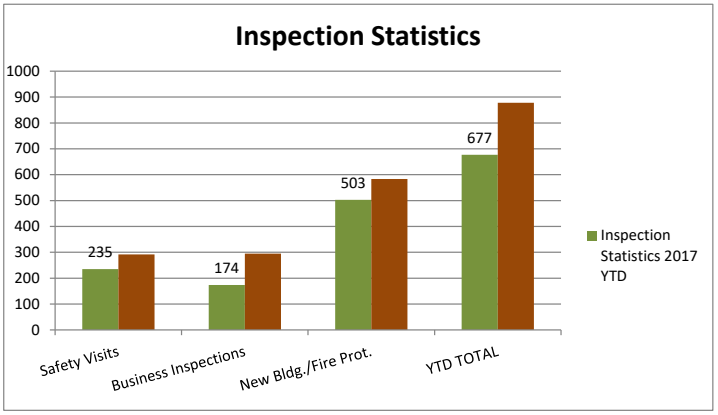
	City	County	Johnstown	Totals	Hours
Conceptual Design Reviews	88	2	0	90	45
Previous Month	103	2	0	105	45
YTD Total	785	16	0	801	393
Previous YTD	831	11	14	856	444
Building Permit Reviews	59	2	1	62	68
Previous Month	72	1	4	77	96
YTD Total	425	14	20	459	621.5
Previous YTD	324	18	15	357	548.5
Fire Protection Permit Reviews	14	0	4	18	25
Previous Month	13	1	1	15	20
YTD Total	150	14	26	190	234
Previous YTD	131	15	11	157	206
Planning Project Reviews	18	4	0	22	22
Previous Month	14	3	0	17	17
YTD Total	163	28	3	194	194
Previous YTD	131	22	9	162	359.5
TOTAL REVIEWS YTD	**1523**	**72**	**49**	**1644**	
PREVIOUS YEAR YTD	**1417**	**66**	**49**	**1532**	



Planning & Building Check-Ins YTD	547	71
Fire Protection Permits Average days in review	5.5	
Percent within goal time	August	100.0%

INSPECTION STATISTICS

	City	Rural	Johnstown	Total	Hours
Eng. Co. Safety Visit 2 & 3 Yr.**	18	0	N/A	18	22.85
Safety Re-Visit	2	0	N/A	2	1.5
YTD Total	203	32	N/A	235	136.35
Previous YTD	235	57	N/A	292	187.75
Business Inspections	26	2	N/A	28	17.75
Previous Month	13	2	N/A	15	13
YTD Total	155	19	N/A	174	141
Previous YTD	247	48	N/A	295	313.2
New Bldg./Fire Protection	49	3	10	62	90
Previous Month	47	3	6	56	83.00
YTD Total	351	68	84	503	730.5
Previous YTD	504	79	N/A	583	872
TOTAL INSPECTIONS YTD	506	87	84	677	
Previous Year	**751**	**127**	**N/A**	878	



***New Measure. Prior year data not available for New Bldg/Fire Protection**

****Engine Company Safety Visits are not included in YTD Totals**

CSD OTHER ACTIVITIES

	City	Rural	Hours	Mo. Total	Prev. Mo.	Prev. YTD	YTD Total	Highlights/Projects
Hazmat Permits	11	4	11.5	15	8	119	70	*UDC ADU Code Review and Updates
Tents/Special Events*	17	0	17	17	12	42	55	*Worked with multiple agencies to resolve Larimer Humane Society Fire Flo
Burn Permits Issued	0	9	2.25	9	1	93	102	*Started annual school inspections
Investigations	6	5	11	11	23	140	111	*
Service Call/Complaints	0	0	0	0	2	30	13	*
Car Seats Installed	7	0	3.5	7	14	76	71	*
YFS Program	1	0	3	1	0	13	7	*
Public Education Events	0	0	0	0	1	38	21	*
Total Pub. Ed. Contacts	0	0		0	31	2623	565	*

***This also includes Pyrotechnics permits**