



Office of the Fire Chief Ken Gilliam
La Crosse Fire Department

726 5th Ave South, La Crosse, WI 54601 ■ (608) 789-7260 Fax (608) 789-7270
<http://www.cityoflacrosse.org> gilliamk@cityoflacrosse.org



Serving La Crosse and Southwestern Wisconsin with Quality Emergency Services Since 1896

Police & Fire Commission
Fire Department Monthly Report
April 1st through April 30th

In the News:

- 4/5** Firefighters were dispatched to 821 State Street about 12:07pm and quickly extinguished a fire, which was limited to the porch area. The cause of fire was failure to extinguish smoking materials.
- 4/7** Firefighters arrived at 428 South Front Street about noon on Saturday and found smoke coming from a fire inside a stage door. A small plastic total that was smoldering was removed from the building. Nobody was injured, and there was minor water damage to the stage area. Fire was caused by welding sparks that ignited combustible material.
- 4/8** Firefighters arrived at 200 Bainbridge Street at 4:50pm, where they reported seeing smoke and fire in the garbage processing area. Xcel workers said they heard an explosion. Several fires were extinguished throughout the facility, and extensive ventilation was required because of the amount of fire and smoke. No injuries were reported.
- 4/22** Four fire departments responded to fire call in Holmen. (Holmen, Onalaska, La Crosse and Town of Campbell Fire Departments) The crews were able to get the fire under control it spread to the other four connected homes. The fire began on the back deck of the house.
- 4/25** The La Crosse Fire Department battled the elements Thursday afternoon for their swift water training. Captain Tom Griffith says while this weather and high water might not be ideal for those of us waiting for clearer days, it's actually perfect for learning purposes. The team was able to learn not only basic boating and rescuing skills, but how to do it when conditions are more dangerous than normal. The water training is just one of the skills La Crosse's fire and rescue members learn.
- 4/26** Two women and several children younger than 5 years old were able to escape after a car caught fire Friday near the La Crosse Public Library. The cause is still undetermined, but a loose fuel line made it difficult to extinguish.

Personnel: No changes to report.

Respectfully Submitted,

A handwritten signature in black ink, appearing to read "K. Gilliam".

Fire Chief Ken Gilliam



Office of the Fire Chief Ken Gilliam

La Crosse Fire Department

726 5th Ave South, La Crosse, WI 54601 ■ (608) 789-7260 Fax (608) 789-7276



Serving La Crosse and Southwestern Wisconsin Quality Emergency Services Since 1896

Activity/Performance Summary

April 2019

Performance Measures	Apr-19	Apr-18	Difference
April Incidents	556	545	2%
April Fire Prevention Activities	538	459	17%
April Call Processing Time	1:32	1:40	-9%
April Turnout Time	1:51	2:06	-14%
April Travel Time	4:49	4:33	6%
April 90th Percentile Total Response Time ¹	6:55	6:56	0%
April Achievement of Response Goal ²	86%	83%	4%
	2019	2018	Difference
YTD Incidents	2,212	2,103	5%
YTD Fire Prevention Activities	1,010	1,552	-54%
YTD Call Processing Time	1:26	1:31	-6%
YTD Turnout Time	1:50	2:10	-18%
YTD Travel Time	4:58	4:37	8%
YTD 90th Percentile Total Response Time ¹	7:10	7:06	1%
YTD Percent Achievement of Response Goal ²	82%	85%	-4%

Notes

¹ 90th percentile response is a measure of quality and reliability; only 10% of the responses will exceed this time. Priority responses are included when calculating response times.

² The total response time goal is to respond to 90% of all calls for service within 6:20 or less. This number reflects the percentage of time we achieve this total response time goal.



La Crosse Fire Department

Chief Ken Gilliam

726 5th Ave South, La Crosse, WI 54601 (608) 789-7260 Fax (608) 789-7276

<http://www.cityoflacrosse.org> Gilliamk@cityoflacrosse.org

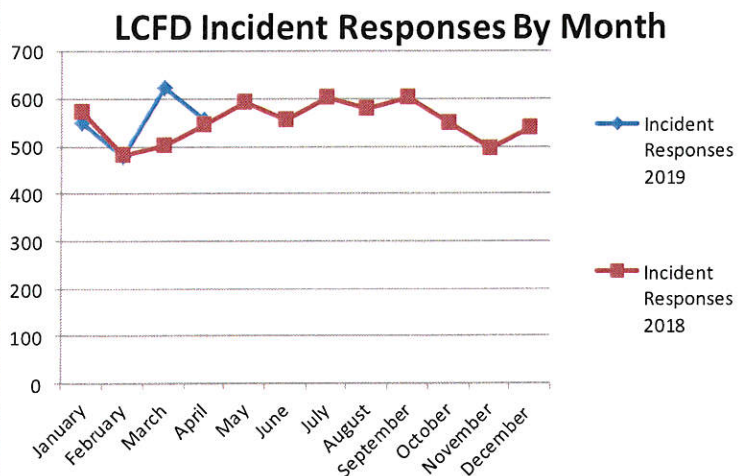
Serving La Crosse and Southwestern Wisconsin Quality Emergency Services Since 1896



LCFD Statistical Analysis

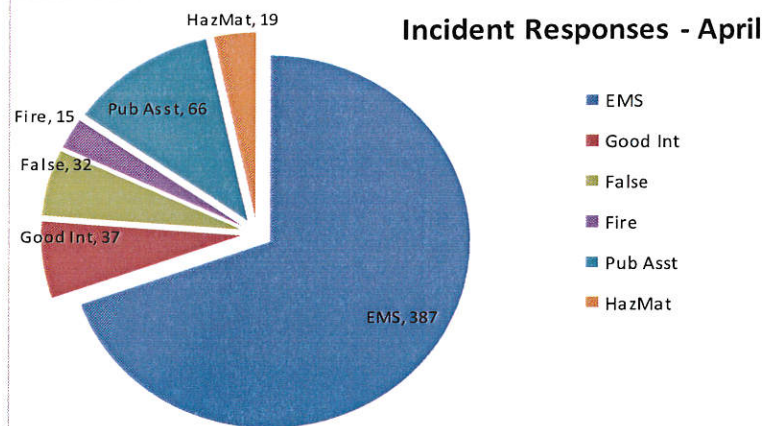
April 2019

LCFD Incident Responses	YTD 2019	YTD 2018
Total	2,212	2,103
Percent Change	5.18%	



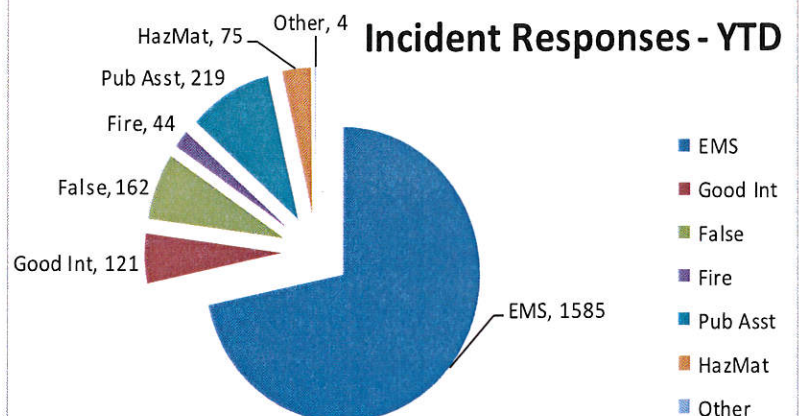
2019 April Response By Incident Type

Incident Type	Incident Responses
EMS	387
Good Int	37
False	32
Fire	15
Pub Asst	66
HazMat	19
Other	0
Total	556



2019 YTD Response By Incident Type

Incident Type	Incident Responses
EMS	1585
Good Int	121
False	162
Fire	44
Pub Asst	219
HazMat	75
Other	4
Rupt/Exp	2
YTD Total	2,212





Division of Fire Prevention & Building Safety

La Crosse Fire Department

726 5th Ave South, La Crosse, WI 54601 ■ (608) 789-7264 Fax (608) 789-7270
<http://www.cityoflacrosse.org> snyderc@cityoflacrosse.org



Serving La Crosse and Southwestern Wisconsin with Quality Emergency Services Since 1896

**Police & Fire Commission
Fire Prevention & Building Safety
April 1st through April 30th**

Monthly Stats:

Inspections.....527
Violations.....148
Corrections.....48
Referrals.....0

Complaints.....0
Citations.....0
Permit Fee Totals.....\$181,888.99
Building OTCs.....422

Fires Investigated:

4/4 821 State St, porch fire, caused by cigarette
4/7 111 13th St N, basement fire, contained to room of origin
4/8 200 Bainbridge St, conveyor/shredded fire, cause undetermined
4/9 1418 Gillette St, roof fire, caused by arcing
4/26 On 9th St N at Main St, vehicle fire, still under investigation
4/29 3407 Fiesta Ct, vehicle fire, caused by arcing

Monthly Activities:

Sprinkler System Installation:

4/5 MCHS CAMS Building, 700 West Ave S & 4/15 Apartments, 514 State St

Fire Alarm Installation:

4/5 MCHS CAMS Building, 700 West Ave S & 4/15 Apartments, 514 State St

Festival or Tent Inspection:

4/3 La Crosse Center, 300 Harborview Plaza

Kitchen Fire Suppression Installation & Occupancy Inspection:

4/15 Mario's Chicago Beef & Hot Dogs, 118 3rd St S

Respectfully Submitted,

Craig Snyder
Assistant Chief of Fire
Prevention & Building Safety

Kyle Soden
Captain of
Inspection

Steve Cash
Lieutenant of
Inspection



La Crosse Fire Department

726 5th Ave South, La Crosse, WI 54601 ■ (608) 789-8673 Fax (608) 789-3829
<http://www.cityoflacrosse.org> adamst@cityoflacrosse.org



Serving La Crosse and Southwestern Wisconsin with Quality Emergency Services Since 1896

Police & Fire Commission Training Report April 1st through April 30th

Training Events

Fire Ground Operations
EMS
Extrication
Technical Rescue
Water Rescue
Haz Mat
Apparatus Operations
Recruit Academy
Tactical EMS
Management / Officers
Fire Prevention / Public Education

Total Training Hours for April	1,678
Number of LCFD Staff Attending	97
Average Training Hours per Staff	17.3

From: Tischer, Michelle [<mailto:michelle.tischer@redcross.org>]
Sent: Wednesday, April 24, 2019 5:02 PM
To: Cash, Steven; Schott, Jeffery
Subject: Smoke Alarm Totals

Hello!

I wanted to update you on our event on April 13. We installed 35 alarms and made 14 homes safer! Thank you both so much for being there, and please say thank you to the other members who helped out. We love working with the lax fire department and our volunteers had excellent things to say about you and your fire safety knowledge.

Have a wonderful evening!
Michelle

Michelle Tischer | Disaster Program Manager
American Red Cross | Wisconsin Region
2927 Losey Blvd S. La Crosse, WI 54601
(608) 797-0447 (c)
Michelle.Tischer@redcross.org

La Crosse Fire Department



2018 Community Report



*Serving the Greater La Crosse Area and Wisconsin
With Quality Services Since 1896*



Our Mission

We promote safety, reduce risks, and respond to calls for fire suppression, all-hazard rescue, and emergency medical services. We earn the community's trust through preparedness, professionalism, and dedication to service.

Our Core Values

Respect reflects our belief that all persons have equal value and deserve our due attention.

Integrity leads us to honor our commitments and to do what is right.

Service drives us to put the needs of the community first.

Excellence encompasses our professionalism and dedication to continuous improvement of knowledge, skills, and abilities.

Strategic Initiatives 2019-2023

1. Community Risk Management and Outreach
2. All-Hazards Response Capability
3. Emergency Medical Services - Advanced Life Support (ALS) Response
4. Leadership and Organizational Development
5. Employee Fitness and Wellness
6. Infrastructure and Technology

Table of Contents...

Letter from Chief Gilliam.....	4-5
Organizational Chart.....	6-7
Training Division.....	8-9
Fire Prevention & Building Safety	10-11
Fire & Rescue Operations	12-13
Accreditation	14
Emergency Medical Services.....	15
Hazardous Materials.....	16
Urban Search & Rescue.....	17
Water/Ice/Dive Rescue.....	18
Tactical EMS.....	19
Budgets.....	20-21
A Look at 2018.....	22-23
Honoring Firefighters.....	24
Firefighter of the Year.....	25
Personnel Changes.....	26
Stations.....	27



Letter from Fire Chief Ken Gilliam...

To the Citizens and Community Leaders of La Crosse,

I write this as I round out my sophomore year as the Fire Chief of the LCFD and as our organization continues to gain momentum on many strategic initiatives. I sincerely appreciate the patience and dedicated work ethic of all members of our organization, as I have settled in to the Fire Chief role and as they have all adapted to my new leadership tempo.

In 2018, we ended a **five-year strategic plan** period which I inherited, and I was pleased to look back and see how many accomplishments the entire organization achieved from 2014 to 2018. We wrapped up a number of “works in progress” during 2018, and we finished this five-year period organizationally stronger than when the plan was established back in 2014. Kudos to the entire organization for achieving the vast majority of the goals set five years ago. It is quite an accomplishment and a credit to all involved, both internal and external to the organization.

A summary of key highlights for 2018 are as follows and are outlined in depth throughout this report:

- No civilian fire casualties in 2018.
- Realized cardiac arrest survival rates in La Crosse that far exceed national averages.
- Met increasing annual call volume (over 6600 incidents) while staying within established budget.
- Obtained Paramedic licensing through the state, and launched a successful pilot program of our Paramedic ALS First-Responder Program on Engine 4.
- Maintained status as an Internationally Accredited Agency through the CFAI, and maintained ISO-2 Rating.
- Began contractual Fire and EMS service coverage to the Town of Medary.
- Strengthened protection plans for existing service areas on French Island and within the Town of Campbell.
- Strengthened Mutual-Aid and statewide Mutual-Aid Box Alarm System (MABAS) plans.
- Technology Accomplishments: Completed transition to the Target Solutions training platform, and began transition to the Lexipol Knowledge Management System for organizational policy and procedure development. Began implementation of the First Watch data analysis platform to support self-analysis and quality assurance goals.
- Supported several new safety and training plans aimed at meeting professional and national standards, and made health and safety advancements to reduce occupational risks.

Throughout 2018, we also completed a significant planning process to develop our **2019-2023 Strategic Plan** and our associated **Standards of Cover** for the community. These documents are also making their way through our Common Council review process this spring of 2019, and I look forward to feedback from our elected leaders and the greater community who we serve. This strategic planning process included input from internal and external stakeholders, was mission driven and data supported, and I believe that the plan clearly paints a picture of where our organization is headed and sets goals that we can certainly achieve.

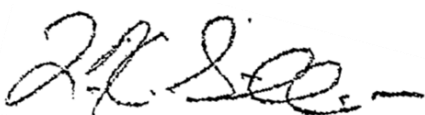
In 2018, we continued to see **significant turnover** due to retirements and, I would be remiss if I did not acknowledge the loss of a tremendous amount of organizational knowledge, as well as to give a sincere welcome those new to our ranks. And while we say “good bye” to many long-time leaders in our organization, I am excited to see what the next generation can accomplish over the course of their careers. With significant turnover comes opportunity for change and we have made several organizational adjustments over 2018. These changes are evident on our **organizational chart** included with this report compared to years prior, and moving into 2019 we will continue to see some changes to strengthen our long-range continuity planning and professional development, as well as strengthening our organizational span of control and accountability measures.

As we transition into 2019 and the new five-year strategic plan, I have included our updated **Mission Statement** and **Core Values** as part of this report. In 2019, we will transition our current Fire Prevention and Building Safety Division into a newly titled “**Community Risk Management Division**” to more properly address the evolution of this division and our expansion of community risk reduction strategies. Our Training Division is evolving into the “**Training and Professional Standards Division**” to clearly define our organizational focus on occupational standards and professional growth. Our Fire Suppression Division will likewise transition to our “**Operations Division**” to better encompass our all-hazards mission of fire suppression, emergency medical, technical rescue, and community service. This three-pronged approach to our organizational management structure will provide the total organization with clear span of control as we focus our priorities and objectives in the coming years.

In closing, I will share a brief story... During recent new firefighter interviews, one of the applicants asked what our organization was like behind the scenes. One of my fellow chief officers quickly summarized our organization as “*not flashy and very competent*”. These words made me smile and they sum up the vibe of this organization very well. This organization is indeed a no-nonsense, competent group of men and women who exhibit a collective commitment to continuous quality improvement through ongoing training and organizational self-analysis. I thank the community for giving me the opportunity to lead such a great group of people, and I thank the organization for our professional accomplishments in 2018. I look forward to what the future brings for our organization and the larger community that we serve and protect.

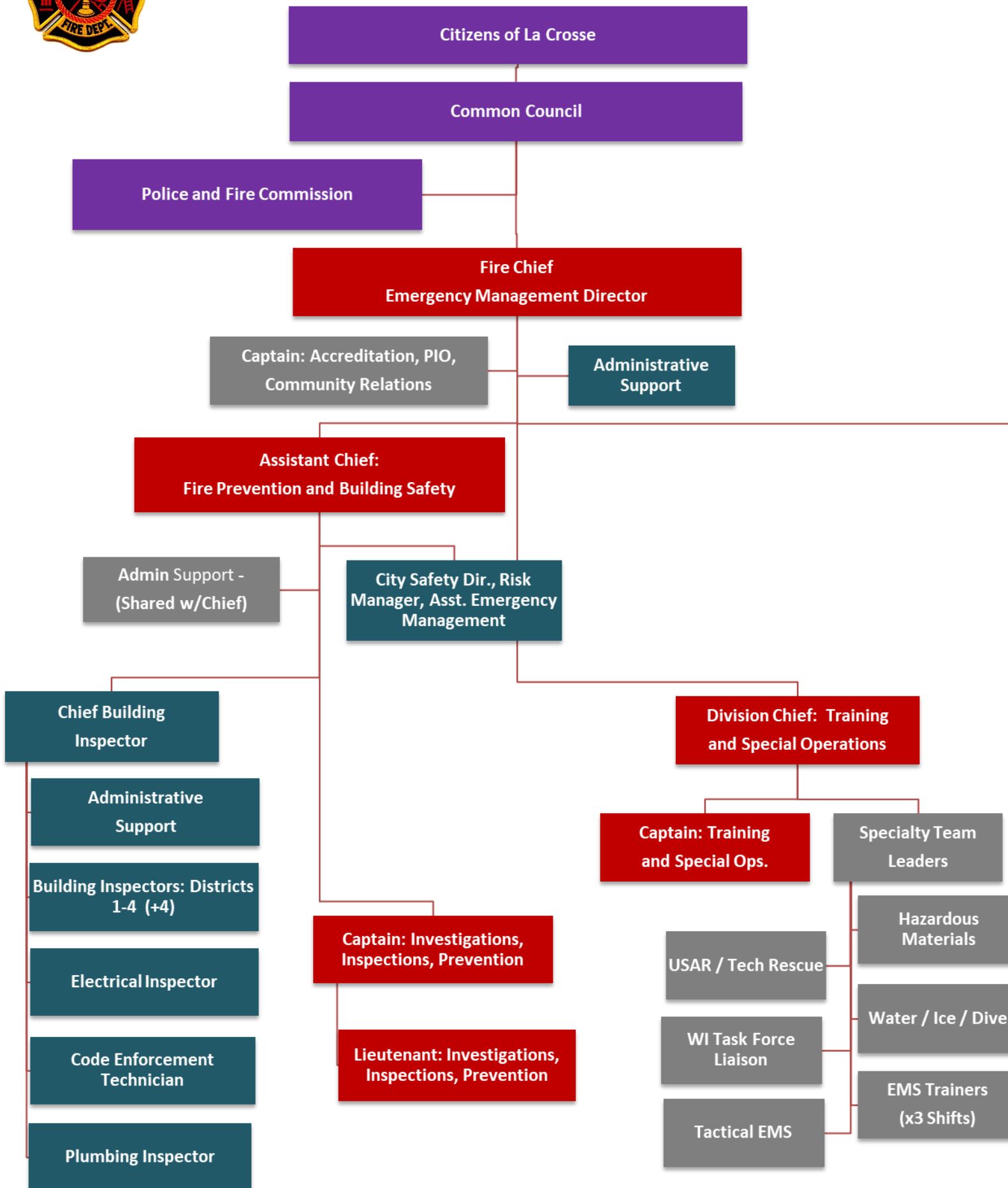
Thank you for taking the time to review this 2018 Annual Community Report for the La Crosse Fire Department.

Respectfully,



Ken Gilliam
Fire Chief, Emergency Management Director



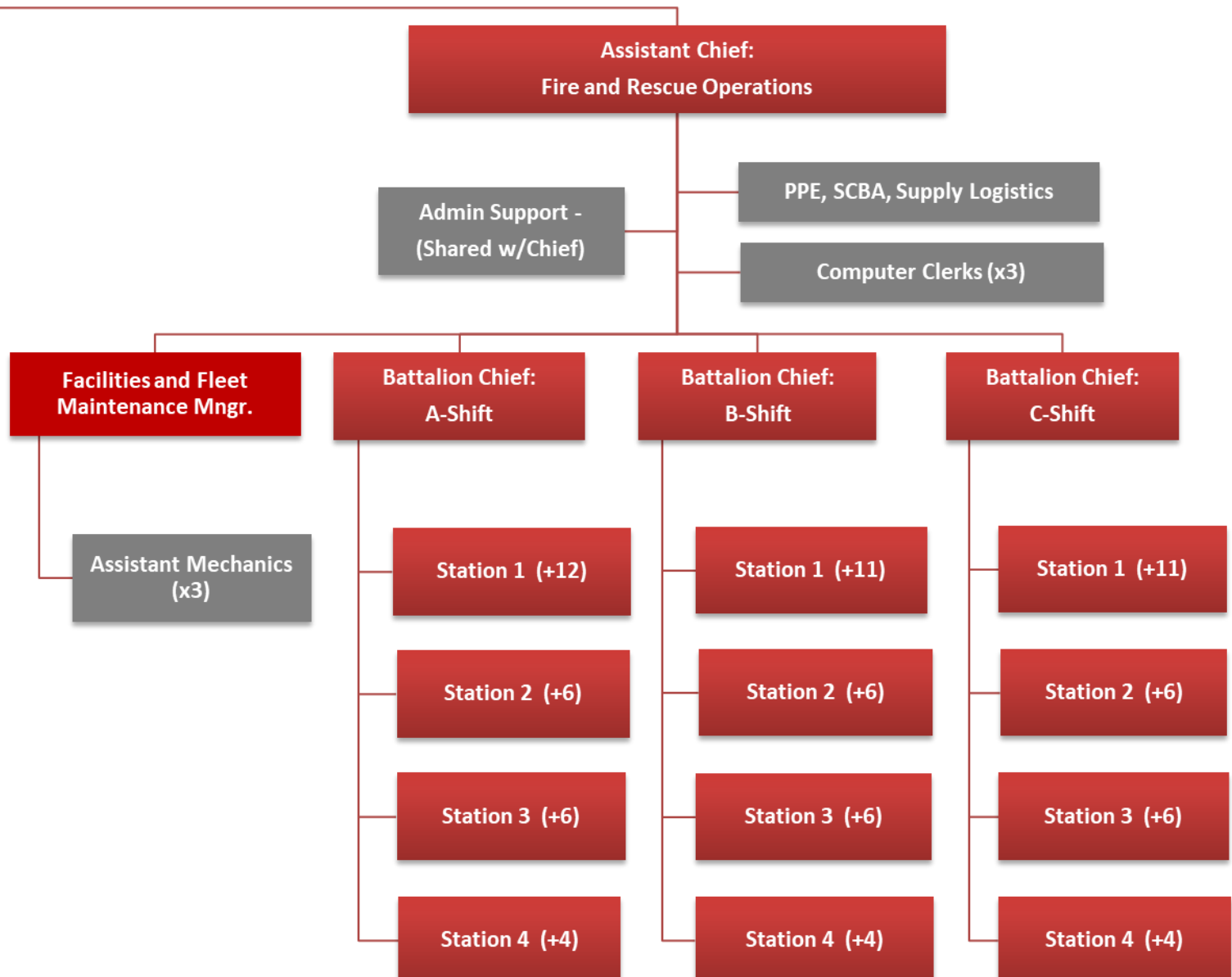


LA CROSSE FIRE DEPARTMENT

Fire, Rescue, and Community Risk Reduction

Blue highlighted positions
are civilian staff.

Gray highlighted positions
are dual-staffed, NO FTE.



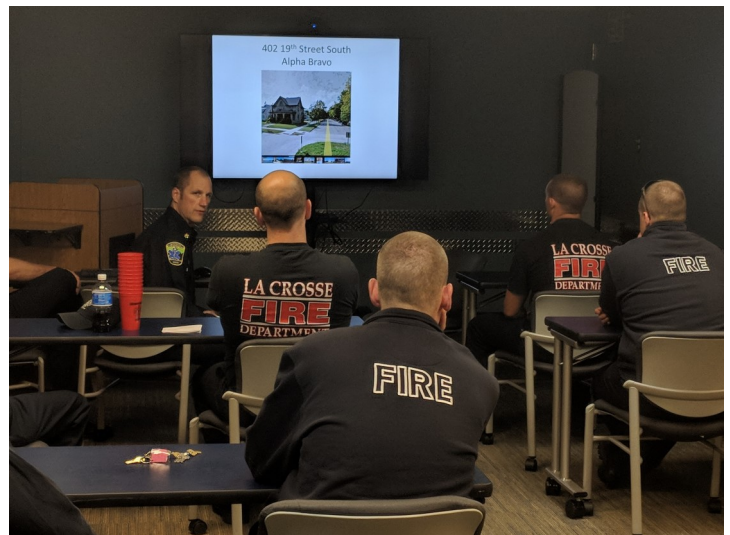


Training and Professional Standards Division

The La Crosse Fire Department believes that the success of our training programs will determine our success at emergency incidents. As an outcome of our training, and based on our actions at the emergency incidents to which we respond, we continue to prove our organization as a **competent and professional service** for the citizens, businesses, and visitors of our community. Training and professional standards will continue to be a primary focus of our organization.

The organization completed a **total of 32,471 training hours in 2018**. This averages out to over 30-hours per person, which is ten hours more than standards required by the NFPA, OSHA, and the ISO. The total hours do not include the additional 3,675 hours personnel spent conducting daily and weekly readiness inspections on their personal protective equipment, apparatus, and other life safety equipment. These safety inspections are performed on a regular basis so that the LCFD is always in a constant state of readiness. Additional 2018 training statistics includes:

- 345** = Total number of specific training topics delivered.
- 54** = Total number of LCFD internal instructors used.
- 17** = Total number of external specialist instructors utilized.
- 5,082** = Total face to face instructional hours provided by topic focused instructors.





Training Highlights

Probationary Firefighter Program - This program starts new personnel with a standard introductory period before they are assigned to a station and fire company. The introduction period was expanded from a three-week program to four weeks in 2018. This firefighter training academy introduction prepares our new recruits so that they are qualified to perform at a level of standard organizational expectation once assigned to positions where they will respond to emergency incidents. The Probationary Program continues for a total 12-month probationary task book period to teach skills and validate all competencies necessary to become a La Crosse Firefighter. All probationary firefighters complete their first year with an eleventh month Skills Evaluation Test, a final review by the Fire Chief, and upon approval are badged and sworn in as members of the Fire Department.



Fire Ground Operations Training - LCFD personnel trained on a variety of firefighting skills at different locations throughout the city. We utilized multiple structures that were preparing to be razed for new construction projects. These acquired structures are invaluable to firefighters to build realistic training scenarios and to test skills competencies. **Thank you** to the City of La Crosse Building Rehab Program, Gerrard-Hoeschler, Western Technical College, Pischke Motors, Gundersen Lutheran, La Crosse Backhoe, and other community partners for providing these unique locations to properly train our personnel for their all-hazards mission.



Vehicle Extrication Training - The LCFD continuously prepares for vehicle accidents which are a frequent incident risk that we face. In 2018, the department obtained some new extrication tools and provided additional training in conjunction with our new "Rescue 1" heavy rescue being placed in service during the latter half of 2017.

We offer our gratitude to Alter Scrap, Don's Towing, Runde Metal Recycling, and multiple citizens for donating necessary vehicles to support this training. Also, a **"thank you"** to the City of La Crosse personnel who assist in prepping the vehicle extrication scenarios with the city's heavy equipment. We would not be able to deliver quality extrication training without this community support.



Fire Prevention and Building Safety Division Assistant Chief Craig Snyder

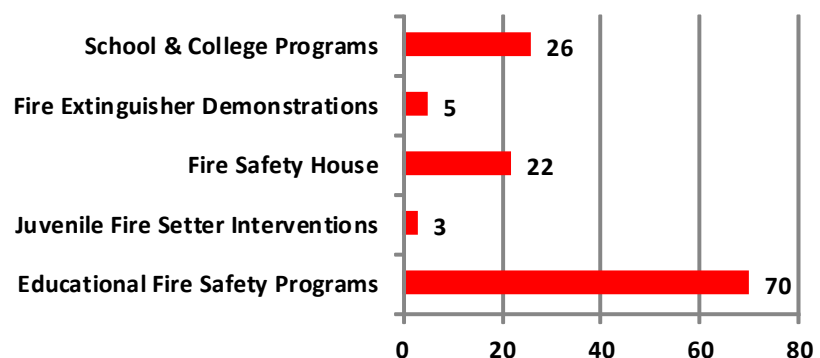


The Fire Prevention and Building Safety Division, supported by the Fire Operations Division, completed our “Fire Prevention Week” programs for all public and parochial elementary schools in the La Crosse School District between September and October 2018. Our theme this year was: **“Look. Listen. Learn. Be aware. Fire can happen anywhere.”** This message works to educate people about three basic and essential steps to reduce the likelihood of having a fire. It further supports us as we educate the public on how to escape safely in the event of a fire. **Look** for places fires can start and take action, **listen** for the sound of a smoke alarm, and **learn** two ways out of every room.

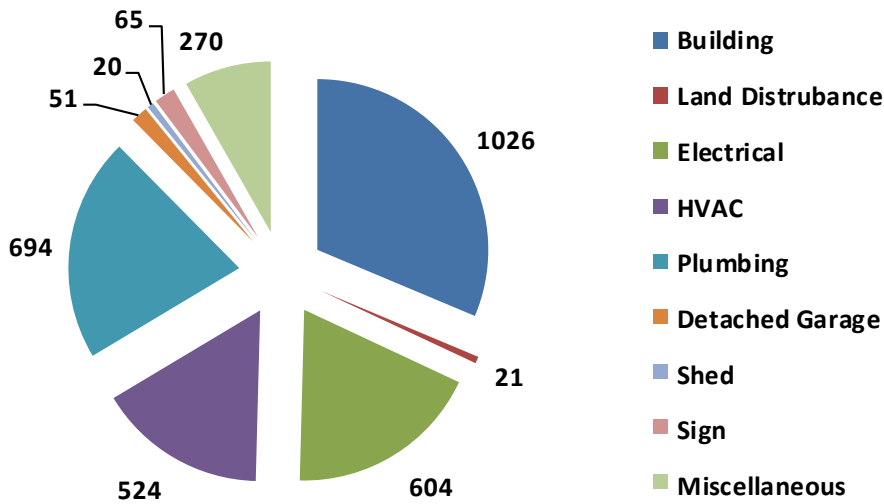
The La Crosse Fire Department reaches over **8,000 children and adults annually** in La Crosse and surrounding communities. We present information regarding fire prevention, safety, and community risk reduction goals. Our FPBS Division also manages all building and facility inspections, new construction review and permits, community code compliance, and fire investigations.



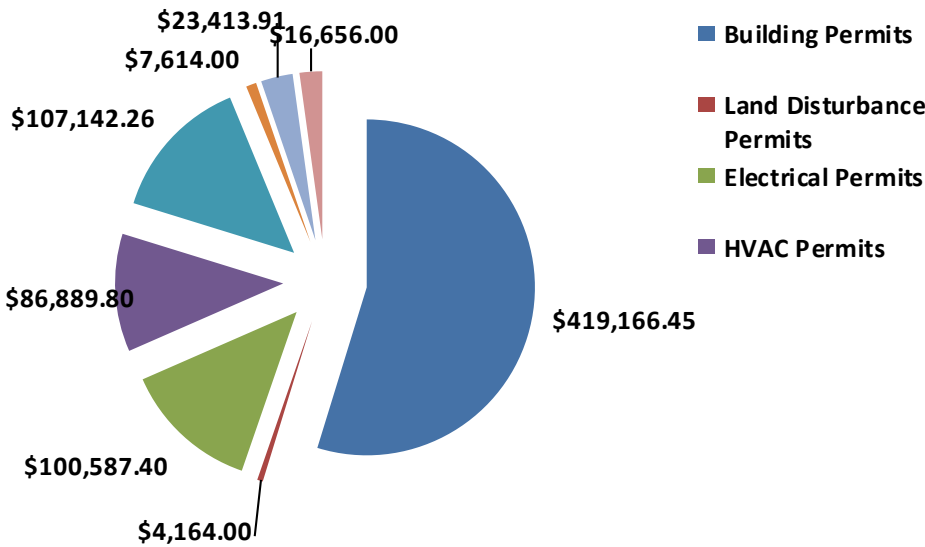
2018 Fire Safety & Education Programs



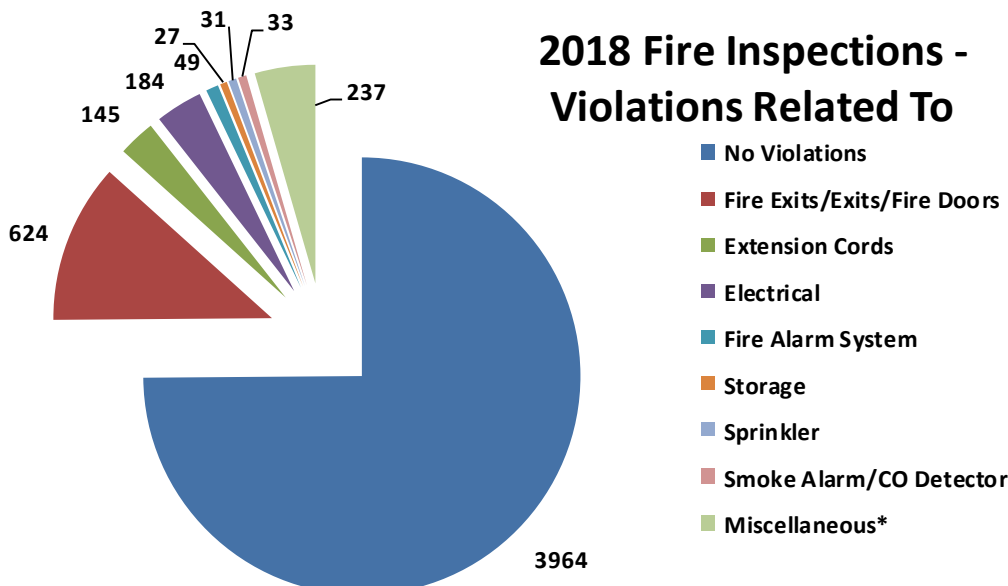
2018 Permit Summary



2018 Annual Fee Summary



2018 Fire Inspections - Violations Related To



In 2018 the Fire Prevention & Building Safety Division completed: **1,055** plan reviews; **13,594** inspections of new construction projects; **5,783** annual fire code compliance inspections; and **3,694** Municipal Code compliance inspections. The division also permitted **78** structures to be razed, making way for **32** new residential buildings, **51** new detached garages, and **14** new commercial and industrial type

*Miscellaneous includes but is not limited to:
BBQ Grill, Ashtray, Candle, LP Storage, NonMetal Duct,

Assistant Fire Chief Craig Snyder - snyderc@cityoflacrosse.org



Fire, EMS, and Rescue Operations

Assistant Chief Jeff Murphy



The La Crosse Fire Department responds to emergencies and calls for public assistance. We operate out of four fire stations and professionally staff two Engines, three Quints (engines with aerial ladders), one Heavy Rescue unit, two medium-duty Rescue units, and a Battalion Chief command vehicle. We also cross-staff several special team units providing a full “all-hazard” response capability, on-duty and ready to respond 24/7/365.

In 2018, we replaced an aging fire engine at Station 4. The **new Engine 4** was dedicated in memory of LCFD Engineer Donald Asselin, who died in 1997 due to occupationally related cancer. The department also replaced Boat 2 in 2018. This new rescue boat affords our water rescue and dive teams a significantly safer water response vehicle.

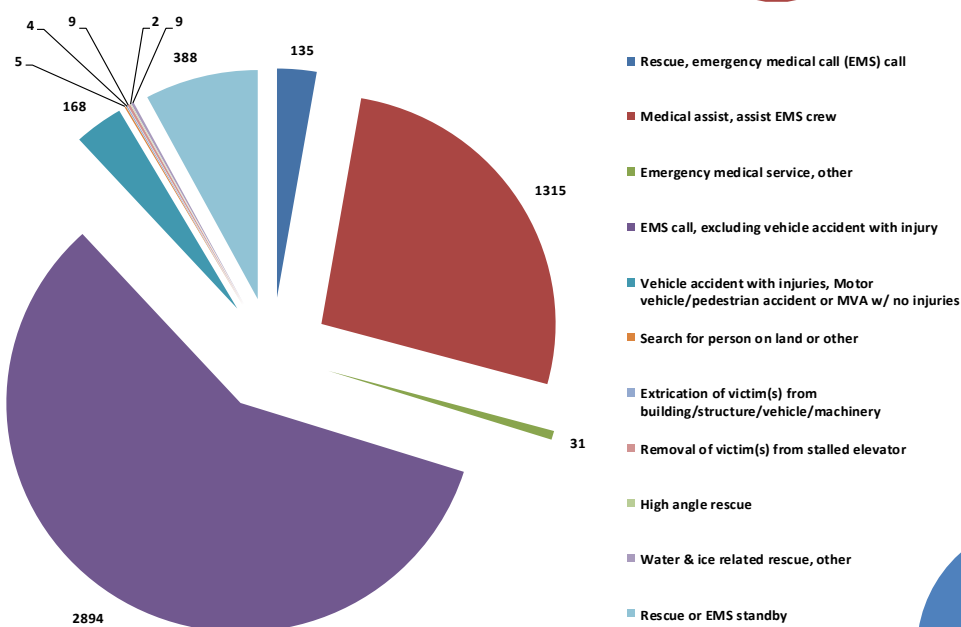
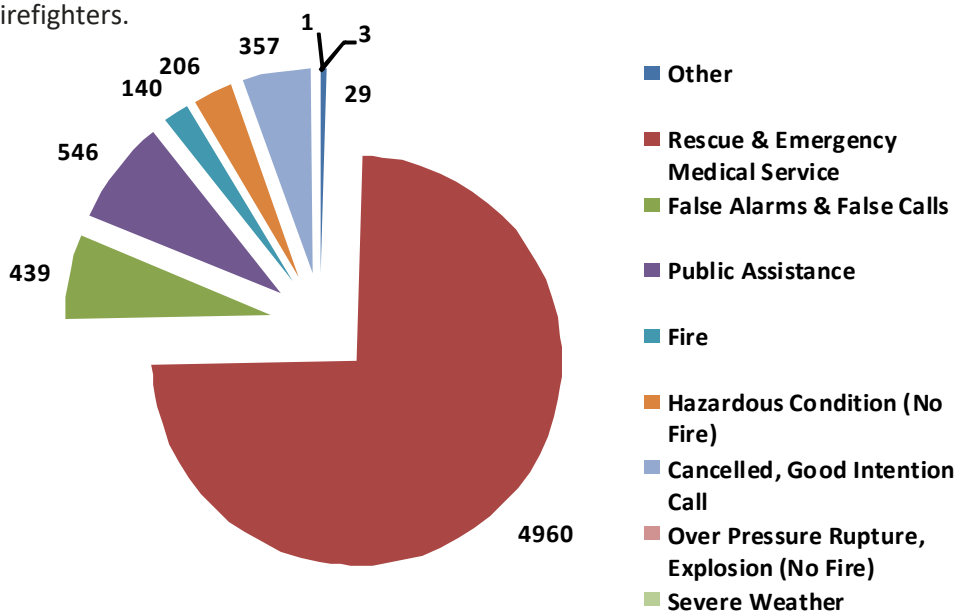
We continue to see increased annual call volume trends for the past ten years, and response plan adjustments are determined annually to accommodate the growing call volume. We responded to **6,681 incidents** in 2018 which is an increase of 3.65% compared to 2017. From the time of our arrival on scene to a structure fire, fire suppression staff kept **fires contained to the fire's room of origin 94.6%** of the time in 2018. We met or exceeded National Fire Protection Association staffing standards for fire suppression response more than 90% of the time, providing a minimum of **15 firefighters on scene within the first 8-minutes** from the time of call.



The **health and safety of our firefighters** continues to be a priority at the LCFD, and that commitment starts within the fire stations and at the core of our safety culture mission. In 2018, we completed installation of diesel exhaust removal systems in all vehicle bays at all four fire stations. We also started a project to replace all of our self-contained breathing apparatus in 2018, and that transition will be completed by June of 2019. Our next health and safety priority in the coming year will be a continued focus on Personal Protective Equipment compliance, to include obtaining a second set of turnout gear for all members to allow us time and equipment for proper decontamination procedures while keeping personnel in-service for additional emergency incidents.

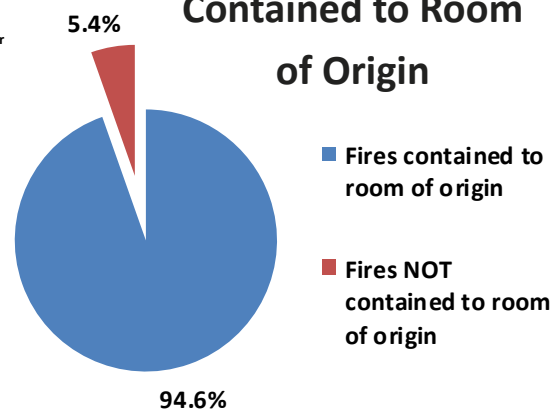
Our firefighters are ultimately the reason for our success, and we have witnessed a significant organizational turnover due to retirements over the last five years. Over **30% of our staff** has been replaced by new personnel within the last five years, and this has made our training plans and safety compliance goals more important than ever as we work to educate and prepare this new generation of LCFD firefighters.

2018 Incidents by Description



Rescue & Emergency Medical Service Calls

Fire Calls - Contained to Room of Origin





Accreditation

Captain Lance Tryggestad



2018 brings to a close the final full year of La Crosse Fire Department's initial period of being internationally accredited with the **Center of Public Safety and Excellence**. During the initial self-evaluation period leading up to our first accreditation in 2014, the department was able to identify and focus on areas of improvement to better ourselves and our service delivery in all areas. It's been a great honor to be one of 266 fire departments in the world to be internationally accredited and recognized by some of the toughest critics, our peers, as leaders in the industry.

The self assessment and re-focusing of our mission and goals has been an ongoing process and has led to many of the great programs, and ultimately outcomes, highlighted in this annual community report. We have put tools in place to evaluate the community, its risk value and the fire department to adjust our service delivery to meet those needs, **focusing on the community** first and foremost.

Throughout 2018, the fire department has been working towards our re-accreditation goal in 2019 by addressing the new 9th Edition requirements of Community Risk and Self Assessment as required by the **Commission on Fire Accreditation (CFAI)**. In the Spring of 2018 the department hosted several external stakeholder listening sessions to gather community input on our services, expectations from the community, and engage on any opportunities identified by the citizen focus groups. These external focus groups were followed by convening an internal strategic group consisting of members from all ranks within the fire department. The input gathered by these internal and external was invaluable as we developed our new Strategic Plan that will lead us to our goal of re-accreditation in 2019.



La Crosse Fire Department is...

1 of 266 agencies accredited around the world

1 of 235 agencies accredited throughout the United States

1 of 11 agencies accredited with the State of Wisconsin

Captain Lance Tryggestad - tryggestadl@cityoflacrosse.org



Emergency Medical Services

Firefighter Frank Garritano Captain Jim Hillcoat



The LCFD has been providing emergency medical services (EMS) to the City of La Crosse since 1975, and we responded to almost 5,000 EMS calls in 2018. Due to a 2018 Advanced Life Support (ALS) upgrade to our service, the department is now licensed by the State of Wisconsin as an “Advanced Life Support Non-Transport Emergency Medical Service”. The department’s EMTs, Advanced EMTs, and Paramedics currently provide the best and most up to date patient care possible up to the certification levels of our personnel.

With the 2018 upgrade in our **ALS capabilities**, Engine 4 is now consistently staffed as a Paramedic unit on the city’s north side. Engine 1 is intermittently staffed based on availability of on-duty paramedics. With five more LCFD personnel completing paramedic certification in 2019, the department will continue to expand ALS Fire-Response service coverage to additional areas of the city, with an long-range goal of one paramedic staffed consistently on all response apparatus.

Our upgrade to **Paramedic ALS-level service** is arguably one of the most significant and exciting changes to our EMS response



capabilities since the department wide transition to all personnel holding EMT certification. This Paramedic-level service enhancement was made possible through collaboration between city leaders, fire department leadership, and our EMS partners at Gundersen Tri-State Ambulance. A joint “Paramedic Services Program” was developed in partnership between LCFD and GTSA, and this program allows LCFD Paramedics to work on GTSA ambulances to obtain ongoing training and clinical field skills opportunities. This program then allows LCFD Paramedics to work at the Paramedic level while employed at the LCFD and as directed by our mutual Medical Director,

Dr. Chris Eberlein at Gundersen Health System. This partnership is essential for maintaining adequate Paramedic coverage to our community in a time where there is a national Paramedic shortage.

Our EMS program continues to yield **cardiac arrest survival rates** of more than four times the national average. This is in large part due to adequate staffing, training, and equipment. In 2018, the LCFD responded to 48 victims of cardiac arrest. Twenty-five percent of those victims were discharged with no disability. Eighty percent of the sudden cardiac arrest victims with a witnessed arrest and early defibrillation walked out of the hospital. These statistics support the importance of access to defibrillators and community members being trained in providing CPR. The LCFD provides CPR and defibrillation training to hundreds of people every year.

Quality training programs are the backbone of our EMS program. Our training delivery has seen great improvement with 2018 upgrades to our training equipment secured by funding allocated from City capital equipment investment. The department also utilizes training support from our Target Solutions subscription, and this electronic training management platform has greatly improved administration and documentation of required EMS training for bi-annual license and certification renewals. The training platform has also been instrumental in improving our quality assurance and oversight program.

We look forward to another successful year in 2019, as we continue to focus on training, professional standards, and further expansion of our emergency medical service delivery for our community.

*Firefighter Frank Garritano - garritanof@cityoflacrosse.org
Captain Jim Hillcoat - hillcoatj@cityoflacrosse.org*



Hazardous Materials

Captain Blane Neher



The La Crosse Regional Hazardous Materials Team is a 25-member unit that specializes in responses to chemical, biological, radiological, nuclear, and explosive related incidents. The team was formally established under the direction of Wisconsin Emergency Management (WEM) in July of 2000. The LCFD has been **designated by WEM as a "NIMS Type 2" asset**. The team currently provides hazardous materials response for nine counties in West Central Wisconsin and to the entire state of Wisconsin as part of the total state response plan. Within our immediate nine county coverage area, the team covers 90 miles of the Mississippi River, 287 miles of railroad track, and 121 miles of interstate highway. Each team member is required to attend at least 48-hours of Hazmat Team drills per year, with standard competency-based exercises designed to maintain hazmat technician-level skills.

The LCFD Regional Hazardous Materials Team also operates as a **Radiological Field Team** for the Wisconsin Department of Health Radiation Protection Section. The team trains and prepares for response to radiological/nuclear incidents that could require rescue, reconnaissance, mitigation, and sampling operations. The State of Wisconsin provides 100% of the funding for both Radiological and Hazmat Teams. The funding includes worker's compensation, as well as reimbursement for costs incurred during a response when there is no responsible party available.

In 2018, the team responded to **13 hazmat incidents** and participated in numerous training opportunities. In addition to monthly training, the team continues to develop training relationships with private industry and outside response agencies. Team members facilitated Hazmat Technician-Level training for City Brewery and provided specialized training classes at the annual Wisconsin Association of Hazmat Responders conference. Additional training opportunities and exercises involved Propane IQ, Monitoring Your Safety, Tactical Chemistry, Responding to Clandestine Lab training, and Advanced Hazmat IQ training. The Hazmat Team was able to fund a number of the trainings through the HMEP Grant, which was facilitated by WEM.



2018 Response Highlights:

- 03/01/18: Clandestine lab analysis/Chemical identification in New Lisbon WI
- 03/02/18: Hazmat investigation Radiation Monitoring in New Lisbon WI
- 04/11/18: Chemical field analysis/Arson investigation the City of La Crosse
- 04/16/18: White powder identification/Field sample and identification in the City of La Crosse
- 04/18/18: Biological hazmat response/Victim removal in the City of La Crosse
- 05/27/18: Air monitoring and analysis in residential location of the City of La Crosse
- 06/28/18: Semi Trailer diesel leak in the City of La Crosse
- 08/01/18: Multiple vehicle accident with a flammable liquid fire near New Lisbon WI on I-90
- 08/05/18: Air monitoring and analysis in residential location of the City of La Crosse
- 09/10/18: Propane gas leak and mitigation down at City Shops in the City of La Crosse
- 10/25/18: Chemical field analysis and identification for possible explosives at La Crosse County Waste Site
- 11/19/18: Chemical field analysis and identification for possible acid leaking from a semi-trailer in Oak Dale, WI
- 12/22/18: Ammonia leak from commercial industry in Warrens WI

Urban Search and Rescue

Captain of Training

Todd Adams



The LCFD Urban Search and Rescue (USAR) Team is made up of **18 team members** and supported by nine additional department members who are trained above and beyond ordinary firefighting skills. The mission of the USAR team is to prepare for and to respond to Technical Rescue emergencies both locally and regionally. These emergencies may involve structural collapse, major extrication or disentanglement, confined spaces, trench rescues, flood and swift water rescue, and high-angle rope rescue incidents.

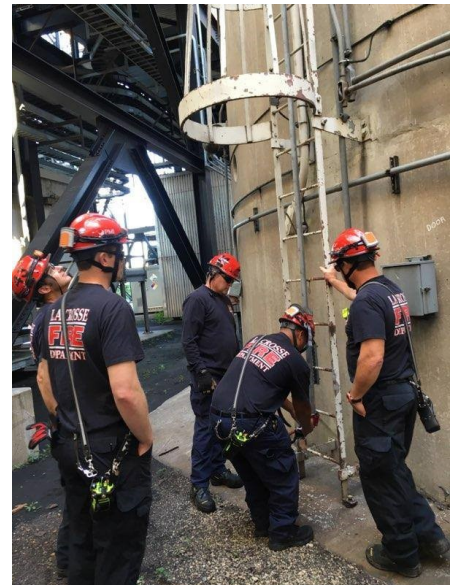
Of our 27 trained LCFD personnel, 18 are also members of the **Wisconsin Task Force 1 (WI-TF1) Urban Search and Rescue Team**, working under direction of Wisconsin Emergency Management (WEM). Our members work in partnership with over 200 other similarly-qualified firefighters from fire departments across the state, to deliver a highly trained and heavily equipped state USAR response team. The WI TF-1 team responds to Wisconsin communities who are overwhelmed by large scale disasters or incidents that exceed their local response capacity. The team is also part of a state-to-state emergency network that supports national disaster management. This team is logistically capable of being completely self-sufficient for a minimum of 72-hours, to include food, fuel, and shelter. All costs related to the WI-TF1 are covered by the State of Wisconsin and coordinated through WEM.

The LCFD USAR Team partners with Dairyland Power to serve as a rescue resource for their Genoa facility. This partnership agreement remained in place through 2018, and this agreement provides our LCFD USAR Team with unique training opportunities within their facilities, to include confined space training within their furnaces and rope rescue training working off of their 500-foot tall smoke stack.



2018 Response Highlights:

- 04/07/18 – Rescue female from rock ledge in Soldiers Grove, WI
 - 05/07/18 – Vehicle crashed in to residential home, assessed structural damage
- 05/22/18 – Body recovery from quarry
- 06/16/18 – Search for missing person, remove body from bluff area
- 06/24/18 – Remove injured person from bluff, slope evacuation
 - 10/30/18 – Vehicle struck building, assessed structural damage, shored structure
- 11/04/18 – Staged for jumper from bridge
- 12/24/18 – Removed injured person from Hixon Forest Trails





Water/Ice/Dive Rescue

Captain Tom Griffith



The mission of our Water Rescue Team is to provide the community with **rescue and recovery capabilities** in all water environments, from underwater rescue and recovery, to open water rescue and ice rescue related emergencies. In addition to life rescue services, our team is capable of searching for and collecting items/evidence when requested by other agencies or communities. The team is made up of **20 LCFD personnel**.

The team consists of **13 divers** who are certified in a variety of specialized diving operations, to include Public Safety Diving, Dive Rescue, Ice Diving, Dry Suit, Full Facemask, and River Current Diving. All divers have been certified through Dive Rescue International and/or NAUI, and must pass an **annual water fitness test and an annual scuba skills evaluation**. Team members are trained in sonar, boat operations, underwater camera work, ice rescue, and water-based EMS.

The LCFD took delivery of our **new Boat 2 in 2018**, and we have been thrilled with its operation and efficient design. We plan to continue our training on this new boat during the 2019 open water season. Team goals for 2019 are to advance our training in swift water operations, flood response, and underwater body recovery operations. We are planning to collaborate with the La Crosse Police Department in working together on improving our evidence recovery operations. Cross-training of additional LCFD personnel (non-team members) in water-related emergencies and water-based EMS is also in the works for 2019. We will continue to train to improve in all water-related disciplines for which we are responsible.



Training 2018: The La Crosse Fire Department participated in 1,474 hours of water rescue, ice rescue, boat operations, sonar operations, and diver-related training in 2018. This training included cross-training other LCFD personnel. This cross-training allows for rapid response to safely and effectively rescue and render aid to victims involved in water-related emergencies. Our team trains weekly with on-duty personnel, and also conducts full team trainings every month. In 2018, our divers conducted 124 dives, and we have documented 550 total dives since September of 2015.

Water/Dive Related Incidents 2018: We responded to nine water-related calls for assistance. These calls include a search for a person in the water, a body recovery (request by LCPD), several water rescues and assistance with stranded or disabled boats. The more high-profile calls include:



1/26/18: Rescue of two people in an off-road vehicle that broke through the ice. The victims were stranded in the water and ice.

5/10/18: Rescue of a person that swam across the La Crosse River after being pursued by LCPD. We utilized our RDC inflatable boat to bring the individual back across and into police custody.

6/17/18: At the request of LCPD, our team recovered the body of an individual in Runge Hollow Lake in Vernon County.

6/24/18: We conducted a rescue of an individual that was clinging to a piling on the Mississippi River, upstream from a docked barge. This was a challenging rescue due to high water and current conditions, night time rescue, and a docked barge directly downstream. Outstanding job by the LCFD! Our training and plans came together for a successful rescue.

The Water Rescue Team continues to make great advances in both training and response. This is made possible thanks to the commitment of our team members, LCFD Management, Brennan Marine, Americinn, Logan High School, UWL and the YMCA. We thank you all for your continued support. Our success as a team is directly related, and we can all take pride in knowing we have a highly successful and well-trained team capable of mitigating any water related emergency in our region.

Tactical EMS

Firefighter Frank Garritano



The Tactical Emergency Medical Services (TEMS) Team continues to grow and develop into a cohesive team while serving and positively contributing to the safety of La Crosse residents. We had a solid year of training in **tactics and advanced medical skills**, and we responded to several incidents in partnership with the La Crosse Police Department tactical team.

In 2018, we had a total of **15 callouts**, and numerous of hours of training. Training plans included a two-day course at Fort McCoy, wherein all team members were certified in International Trauma Life Support. Thanks to funding support from the Federal government, access to the training site and this class were free to members of the team. Additional training topics covered this year were:

-Specialized Rescue Operations

-Tactical Combat Casualty Care

-Team Movement and Concepts

-Injured/Downed Officer Situations

Moving in to 2019, our schedule will again incorporate a high degree of specialized training that will allow the TEMS Team to provide our citizens and patients with the **utmost level of care**. The plan will focus heavily on medical skills; honing current skills, learning new skills, and ultimately passing those skills on to the Police Officers on the ERT.

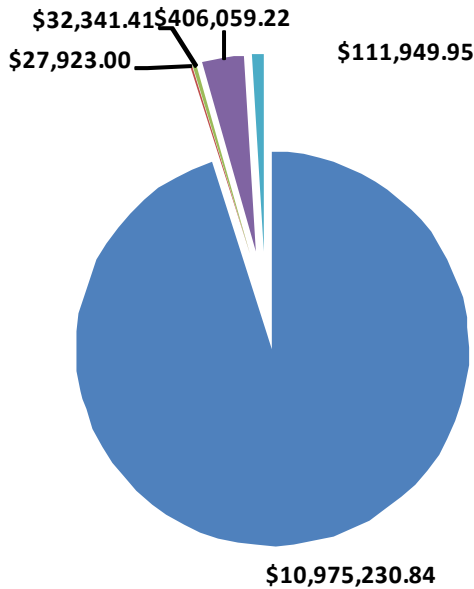
We also plan to incorporate **Canine Emergency Care** into our future training cycle. With two canine handler teams on the ERT, and other canine teams on the police department, we believe the training for dog medical care to be just as critical a preparation as the care for their human partners. Our training efforts will also allow for the Tactical Medics to provide care for any animals that we may encounter while serving in both our tactical team roles and our every day Fire and EMS roles.

Thanks to the continued support of all the contributors involved with the TEMS Team. We look forward to another year of progress, advancing our skills and protecting the City of La Crosse.



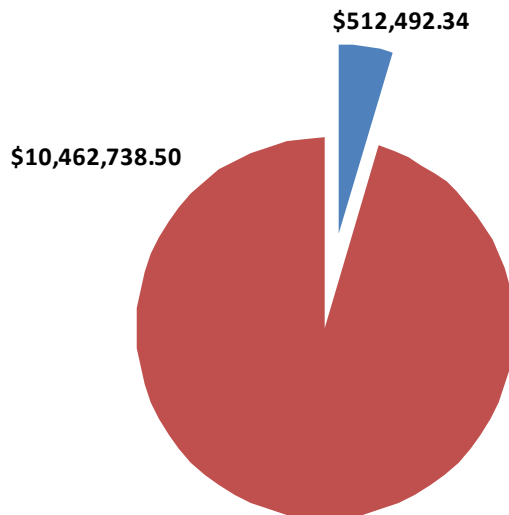


Combined Fire Department &



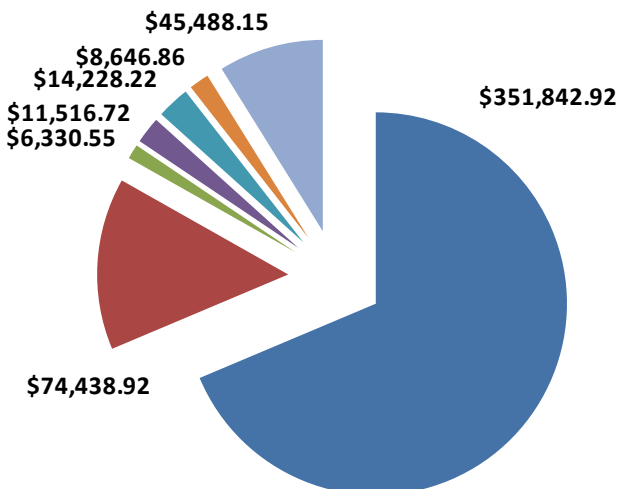
Total 2018 Combined Budgets
\$11,553,504

- Personnel
- Building Maintenance
- Equipment
- General Operations
- Apparatus Maintenance



Personnel Budget Breakdown

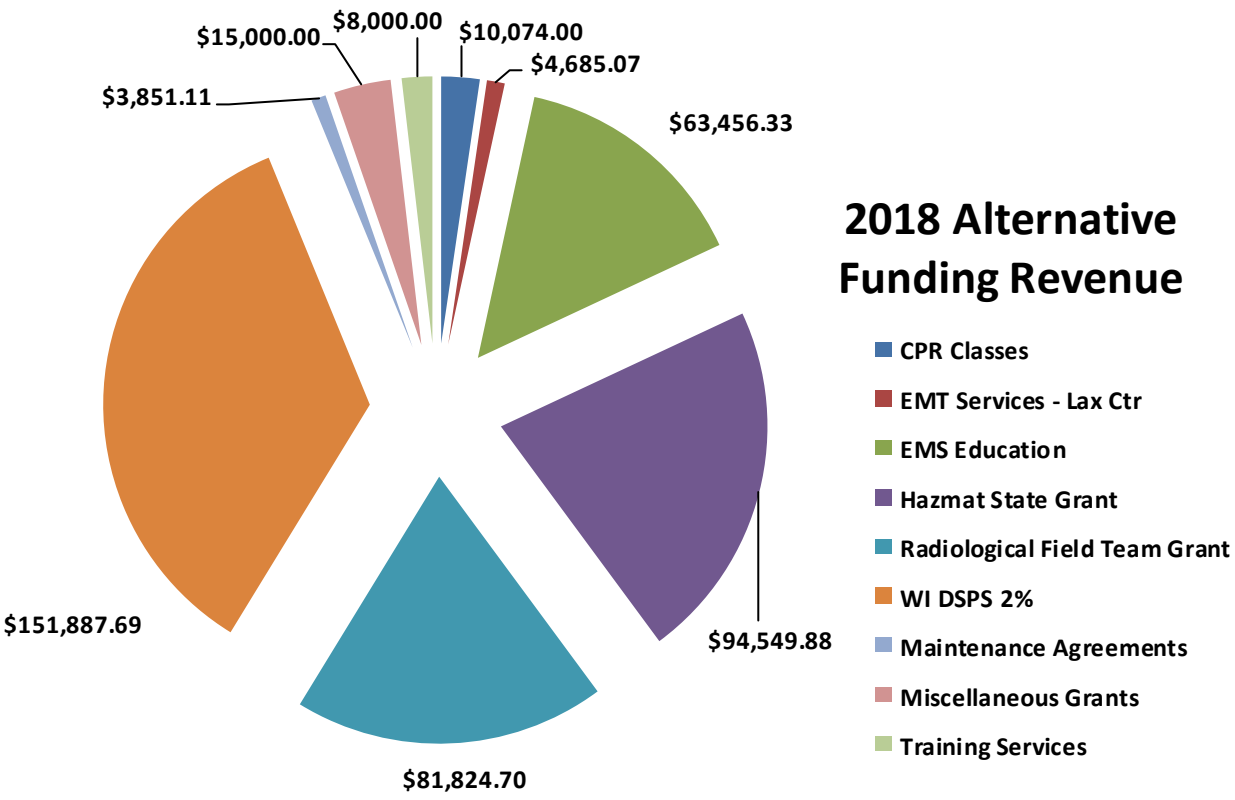
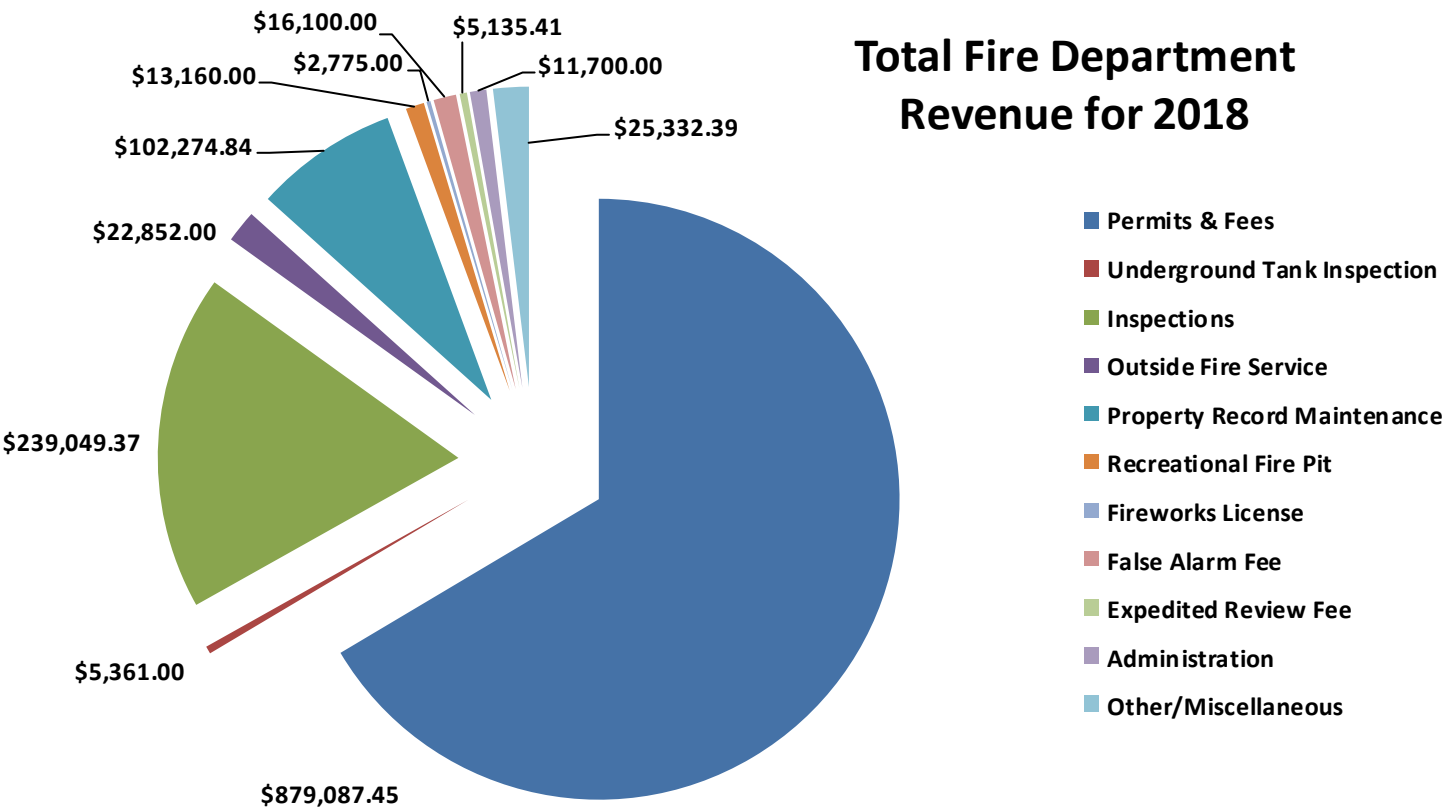
- Overtime
- Salaries/Benefits



Overtime Budget Breakdown

- Overtime Wages
- Overtime Wages FLSA
- Fire Safety House
- High Level/Confine
- Water Rescue
- Tactical EMS

Community Risk Management Budgets









Ryan Rushton

MN National Guard
434th Chemical
Company



Andrew Servais

WI Air National Guard
115th Fighter Wing



Kyle Soden

U.S. Army Reserves
469th Engineer
Company

Serving Our Country & Community

**Honoring our firefighters for protecting
our nation and our local community.**

U.S. Army
173rd Engineer
Battalion

Tyler Hoerres



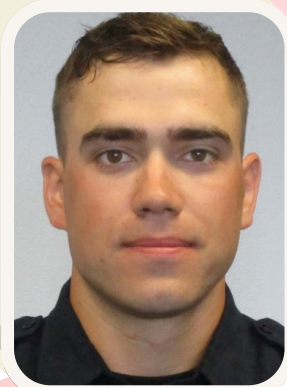
WI Air National Guard
115th Fighter Wing

Cole Doblar



U.S. Army Reserves
102nd Military
Police Company

Clayton Anderson





Greg Temp

The Department awards a **"Firefighter of the Year"** award to an employee selected from a group of peer nominations. This award is decided by a committee of peers and recognizes department personnel for their community service excellence both on and off duty.

In 2018, the organization was pleased to present **Captain Greg Temp** this distinguished award.

From the nomination form:

"I believe Captain Temp embodies the criteria that has been established for this award. Captain Temp has a long track record of leading by example and he is the definition of a professional firefighter. My history with Captain Temp goes back to the days we were both Volunteer Firefighters with the Town of Shelby. He trained with a sense of purpose back then, and his passion and desire to learn, serve, and train has never wavered.

Captain Temp has always strived to expand his knowledge base, and his actions demonstrate how important it is to him to share what he has learned with others. Captain Temp has been actively training members of the LCFD and other departments for years and his teaching style has been very well received. He is rock solid on calls, and his calm demeanor sets the tone and helps achieve successful outcomes. He is an asset, not only to the LCFD, but to this entire portion of the state and region. He has earned his fellow firefighters' trust and respect, and he is a great role model for all those who know him, both within and outside of our department.



2018 Personnel Changes

Promotions and Appointments		
Ryan Scheel	Computer Trainer	January 9, 2018
Jeff Murphy	Assistant Chief	January 19, 2018
Jeff Schott	Battalion Chief	January 27, 2018
Brian Elsen	Captain	February 16, 2018
Mark Hanson	Captain	May 12, 2018
Cory Westpfahl	Lieutenant	July 19, 2018
Adam Foley	Lieutenant	July 19, 2018
Andrew Formanek	Lieutenant	July 19, 2018
Adam Hutson	Engineer	July 19, 2018
Troy Glasel	Engineer	July 23, 2018
Andrew Servais	Engineer	August 13, 2018
Jay Lindahl	Rescue 1 Operator	August 25, 2018
Tyler Hoerres	Computer Trainer	October 12, 2018
Ryan Rushton	Engineer	December 13, 2018
New Hires		
Dominick Mellick	Firefighter	April 23, 2018
Scott DeLong	Firefighter	April 23, 2018
Anthony Hilton	Firefighter	July 23, 2018
Jameson Rau	Firefighter	July 23, 2018
Cole Doblal	Firefighter	July 23, 2018
Andrew Meyer	Firefighter	November 30, 2018
Retirements		
Mark Amann	29+ years of service	January 12, 2018
Bret Kummer	25+ years of service	January 28, 2018
Samuel Polhamus	33+ years of service	March 14, 2018
Anthony Nickelatti	23+ years of service	April 7, 2018
Joseph Jablonski	24+ years of service	September 17, 2018

Know Your Station Location

**AIRPORT FIRE
STATION:**
2841 FANTA REED RD

STATION 4:
906 GILLETTE ST

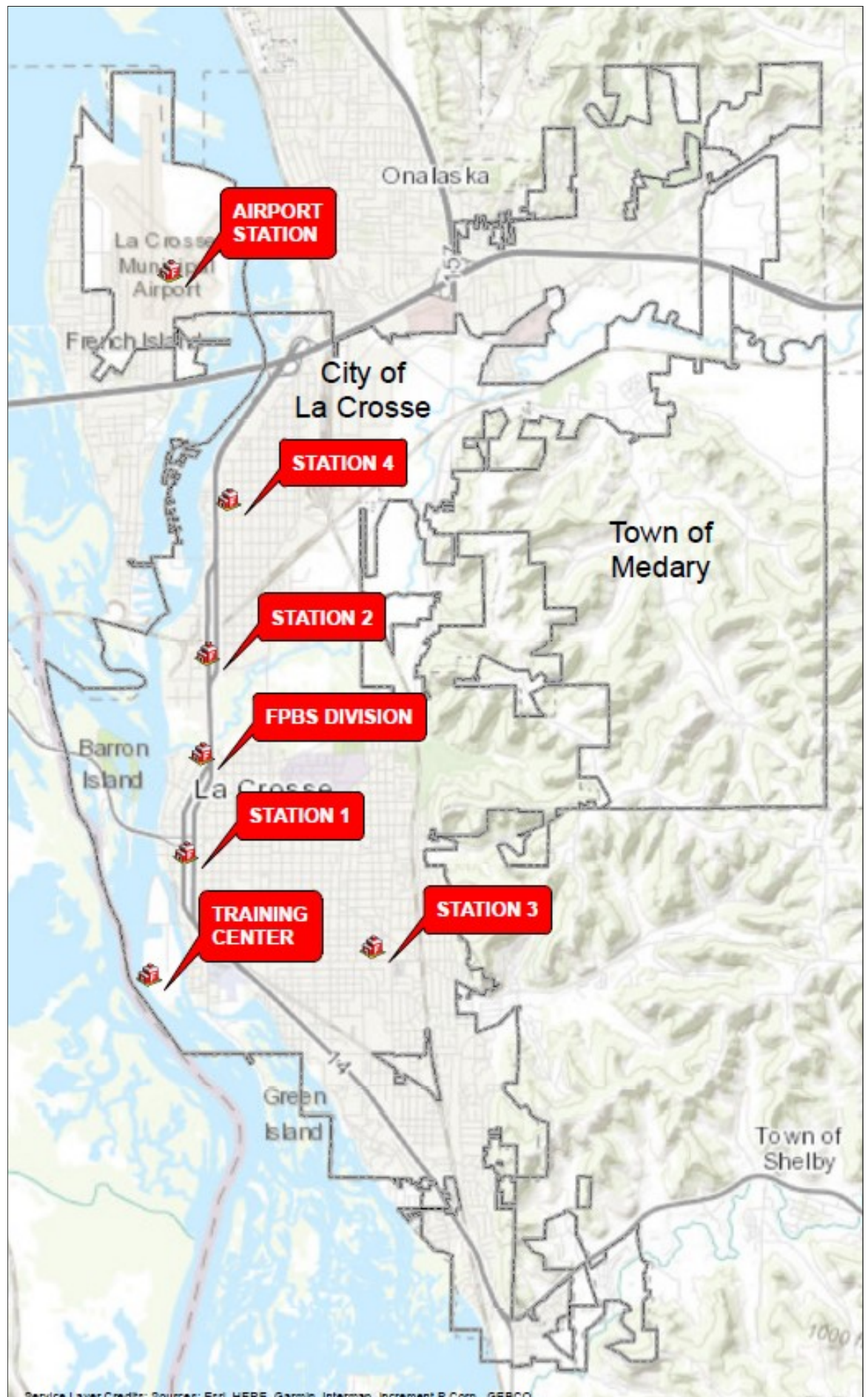
STATION 2:
626 MONITOR ST

**FIRE PREVENTION &
BUILDING SAFETY:**
CITY HALL
400 LA CROSSE ST

STATION 1:
726 5TH AVE S

TRAINING CENTER:
ISLE LA PLUME

STATION 3:
1710 LOSEY BLVD S



Service Layer Credits: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO.



**La CROSSE
FIRE DEPARTMENT
726 5TH AVE S
LA CROSSE WI 54601**

608.789.7260 ph

www.cityoflacrosse.org

**City of
La Crosse Fire
Department**



@lacrossefire



**City of
La Crosse
WI Fire
Department**





La Crosse Fire Department Strategic Plan (2019-2023)



Executive Summary

The La Crosse Fire Department (LCFD) serves the City of La Crosse and surrounding communities, providing emergency response and community risk management services in a highly professional manner. The department was first accredited by the Center for Public Safety Excellence (CPSE) in 2014, a distinction that is conferred based on achievement of high standards of readiness, training, operational performance, and continuous improvement. This strategic plan was created by the leaders of the LCFD to advance that spirit of the pursuit of excellence.

Situation Summary

The LCFD is organized into three primary divisions coordinated by the department Administration:

- **Community Risk Management** (*previously titled Fire Prevention and Building Safety Division-2019 transition*), delivering community education, fire and building safety code compliance, and fire investigations
- **Operations**, delivering a comprehensive emergency response
- **Training and Professional Standards**, strengthening operational competencies and maintaining overall readiness

As a department of the City of La Crosse, the department provides services in partnership with other City departments, neighboring agencies including mutual-aid and auto-aid partners, and other community stakeholders.

The LCFD's greatest strengths include the breadth and depth of its emergency response capabilities, its consistent and efficient delivery of code enforcement and community education services, and its longstanding commitment to continuous, rigorous training efforts. The department has been recognized regionally and beyond for its specialized rescue skills, and the expertise of the department's fire and building inspections group is routinely sought to inform potential changes to the State's fire and building codes. The LCFD Training Division likewise serves as a leader and asset in regional training efforts, and as a source of expertise in a wide range of technical areas of emergency response.

The LCFD's key areas for development include sub-optimal station facilities and IT infrastructure, as well as limited leadership capacity to sustain strategic and tactical continuous improvement efforts. The current stations do not support efficient response and training activities, nor are they conducive to worker safety and wellness. Locations are, in some instances, sub-optimal for expedient emergency response, and the age and configuration of the stations do not support the culture of inclusion and performance sought by the department. The department will also engage in leadership development efforts at all levels in the coming years.

The greatest strategic risks facing the organization are future resource constraints that would not enable it to continue providing its current breadth of services. This is a highly capable department, especially in light of the City's limited size and tax bases. Other key risks include potential challenges recruiting adequate numbers of qualified employees.

Strategic Initiatives

The following six initiatives are comprised of efforts to build on the above strengths and to address the above shortcomings and risks.

1. Community Risk Management and Outreach
2. All-Hazards Response Capability
3. Emergency Medical Services – Advanced Life Support (ALS) Response
4. Leadership and Organizational Development
5. Employee Fitness and Wellness
6. Infrastructure and Technology

Each of these initiatives is described in detail in the full strategic plan that follows this Executive Summary.

Introduction

Department leadership engaged personnel across the agency, while also soliciting feedback from multiple external focus groups, to lead a combined strategic planning process to guide both strategic investment and some day-to-day operating decisions we face over the next five years. This document is the result of those efforts. The strategic plan was developed in accordance with the following principles:

1. **The strategic initiatives are based on a thoughtful, internal assessment of the strategic status of the LCFD, as articulated in the plan.** Each initiative and all efforts are to be focused on achieving meaningful improvement in one or more of the following respects:
 - a. **Excellence in Service Delivery.** This includes the LCFD's readiness and capacity and is intended to include all aspects of service delivery, to include community risk management, public education efforts, emergency medical, fire suppression, and technical rescue responses.
 - b. **Sound Stewardship of Public Resources.** Investments are to be aligned with real benefits to the community, and made in ways that manage costs and benefits, both short and long-term. The LCFD will seek cost-saving collaboration with other La Crosse City departments as well.
 - c. **Fairness.** This includes advancing principles of justice and equity with respect to all stakeholders. Fairness also requires appropriate transparency and accountability in leadership at all levels of the department.
 - d. **Health and Safety.** The strategic plan recognizes firefighter safety and wellness as critical values and aims to protect our ultimate asset, our personnel, from the dangers of the profession.
2. **We are focused on feasible initiatives with a sharp focus on the next five years, as well as a much longer-range view of the department.** The LCFD recognizes that its departmental priorities must be considered within the broader context of the City's needs and plans. This plan contemplates longer-range implications for all initiatives, but projections are limited to a more foreseeable time horizon. Necessary, strategic investments such as facilities replacement and upgrades will have both immediate and long-lasting budgetary and operational implications.
3. **The final strategy must reflect the perspectives of departmental leaders at all levels (including union leadership and internal subject matter experts).** The Fire Chief is ultimately responsible and accountable for the content of this plan, and for leading in its implementation. At the same time, effective implementation requires cooperation from multiple stakeholders and, in some instances, from every member of the department. Therefore, the plan itself is informed by broad departmental input.

This report consists of the following sections:

1. The above **Executive Summary**, providing a high-level overview of the entire strategic plan.
2. This **Introduction**, including the Table of Contents, below.
3. A statement of the LCFD's newly revised **Mission and Organizational Values**
4. **Strategic Situation Summary** and **SLOT Analysis**
5. **Strategic Objectives and Initiatives**
6. **Budgetary Implications**
7. **Conclusion**
8. **Appendix:** Strategic Plan development process and inputs

This plan is intended to reflect the above framework, focused primarily on objectives and initiatives.

Table of Contents

Executive Summary 2

Introduction 3

Table of Contents 4

La Crosse Fire Department Mission and Core Values 5

Strategic Situation Summary and SLOT Analysis..... 6

 Overview 6

 SLOT Analysis..... 7

Strategic Objectives and Initiatives 12

 Initiative 1: Community Risk Management and Community Outreach 13

 Initiative 2: All-Hazards Response Capability 16

 Initiative 3: EMS/ALS Response 18

 Initiative 4: Leadership and Organizational Development 19

 Initiative 5: Employee Fitness and Wellness 20

 Initiative 6: Infrastructure and Technology..... 22

Conclusion 24

Appendix: Strategic Planning Process Overview..... 25



La Crosse Fire Department Mission and Core Values

As part of this strategic planning process, the Planning Committee determined that the departmental Mission Statement and Core Values merited an update. The primary goals of this update were to remain consistent with the spirit of the previous document, while creating something that was more concise and therefore easier for members to recall and apply. The committee also determined that a statement of vision was not necessary given the composition of the draft mission statement and statement of values. The vision of the department is to achieve its mission and to exemplify its core values.

The following is the result of the committee's efforts: a draft mission statement and statement of core values for the La Crosse Fire Department.

Mission Statement

We promote safety, reduce risks, and respond to calls for fire suppression, all-hazard rescue, and emergency medical services.

We earn the community's trust through preparedness, professionalism, and dedication to service.

Core Values

- **Respect** reflects our belief that all persons have equal value and deserve our due attention.
- **Integrity** leads us to honor our commitments and to do what is right.
- **Service** drives us to put the needs of the community first.
- **Excellence** encompasses our professionalism and dedication to continuous improvement of knowledge, skills, and abilities.



Strategic Situation Summary and SLOT Analysis

Overview

The La Crosse Fire department is an all-hazards response organization. The City and surrounding areas include a full range of public and private occupancies, from heavy industry to houses of worship and from large educational and health care institutions to storefronts and other small businesses. Housing stock is equally diverse, from large historic homes to modern multi-unit housing. The surrounding area includes the Mississippi River and other lakes and waterways, as well as bluffs, forest, wetlands, and other rough terrain. The La Crosse Fire Department is equipped and prepared to respond to emergencies in each of these settings, under any and all circumstances.

The Fire Department responds to over 6,500 emergency calls each year. In addition to emergency response, the department has a robust Fire Prevention and Building Safety division that is expanding to address city-wide emergency management, building inspection, fire investigation, and community risk management goals.

The agency operates out of its four fire stations and City Hall:

- Station 1: Engine 1, Quint 1, Rescue 1, USAR, HAZMAT, and Battalion 1
- Station 2: Quint 2, Rescue 2, and Tender 1
- Station 3: Quint 3 and Rescue 3
- Station 4: Engine 4
- Department Administration, Emergency and Community Risk Management, Fire Investigators, and Building Inspection personnel work out of offices at Station 1 and City Hall.
- The department also manages a Training Site with live burn training facility and technical rescue props.

The department provides Emergency Medical Service response department-wide at the Basic Life Support (BLS) EMT-Basic level. Starting in the fourth quarter of 2018, the department engaged in a pilot program to provide Advanced Life Support (ALS) Paramedic level first response service in partnership with Gundersen Health System and Tri-State Ambulance.



The agency provides specialized technical rescue and emergency services to include:

- Hazardous Materials (HazMat) response
- Urban Search and Rescue (USAR), including
 - High-angle and low-angle rope rescue
 - Confined space rescue
 - Trench and below-grade collapse rescue
 - Structural collapse rescue
- Water and Ice Rescue, to include Underwater (dive team) rescue and recovery
- Tactical Emergency Medical Services (TEMS), delivered in partnership with the La Crosse Police SWAT team

The department is a recognized regional leader in many of these disciplines, and has earned a reputation for excellence in all manner of emergency response. This exceptional range of services and breadth of competencies are delivered due, in large part, to the dedication and skill of the LCFD workforce.

As is often the case, the department's strengths and limitations are inter-related. Department personnel are pulled in many directions, and execution of administrative duties and internal projects sometimes suffers. Leaders likewise struggle, at times, to communicate as fully as they otherwise might, and to support the culture development that is essential for the department's long-term, continued success. Finally, the breadth of capabilities supporting a significant regional population of more than 120,000 people strains available funding, which reflects a considerable investment for a city of just over 51,000 people.

Each of the above topics is described in more detail in the following factor analysis.

SLOT Analysis

Input from department members and community focus groups directly informed the following SLOT analysis, which describes the status of department relative to the above strategic mission and scope. (A more common acronym is SWOT, where "limitations" is replaced by "weaknesses.")

- **Strengths** – Factors internal to the LCFD that contribute to its ability to succeed.
- **Limitations** – Factors internal to the LCFD that inhibit, limit, or threaten its ability to succeed. Traditionally called "weaknesses."
- **Opportunities** – Factors primarily outside the LCFD that promote or contribute to success. These function as "tailwinds."
- **Threats** – Factors primarily outside the LCFD that tend to inhibit success. These function as "headwinds."

In a very meaningful sense, this SLOT analysis represents a consensus of how department stakeholders see the organization. As such, it is intended to serve as a baseline for discussion of strategic priorities, and to inform operational decisions as well. Even as these factors change over time, grounding leadership discussions in the mission and circumstances of the LCFD is a useful technique for focusing all participants on a shared perspective of the department.



Strengths

- The LCFD's **Operations Division** capabilities are truly exceptional, in terms of both breadth and depth. The LCFD truly offers a full, all-hazards response force. Officers and firefighters are highly committed to full proficiency and sound execution of all technical disciplines. As a result, LCFD's special teams have achieved state and regional recognition. Finally, these capabilities exist due to sound operational practices and consistent strategic execution, as demonstrated by the department's Center for Public Safety Excellence (CPSE) accreditation, first achieved in 2014.
- The LCFD's **Community Risk Management Division** is likewise cited as an exemplar of efficient and effective code enforcement, working in concert with other city groups and outside stakeholders. The LCFD building inspectors, fire inspectors, and leadership are regarded as regional experts, and are engaged to inform future state code changes, as well as providing the City with a consistent expectation of code enforcement to aid City Planning and Leadership teams.
- The LCFD's **Training and Professional Standards Division** has continued to expand its influence on the total organization and beyond. With significant focus on organizational goals related to safety and professional standards, the work of this division ties all of the pieces together to meet a consistent strategy. This LCFD division, coordinating with technical experts throughout our ranks, is also raising the bar for our regional partners and providing support and resources beyond the internal needs of just the LCFD. As a regional training asset to neighboring agencies and our technical college system partners, the LCFD is positioned to influence safety, interoperability, and best practices to a wide audience.
- The reputational benefits described in the above statements strengthens the LCFD in multiple ways:
 - Peer agencies think highly of LCFD capabilities, which can lead to effective collaboration and can enable the LCFD to be of service in an automatic-aid or mutual-aid capacity.
 - The LCFD's reputation makes it an employer of choice among highly qualified recruits.
 - The public's support can facilitate funding and other forms of institutional support.
 - The department's capabilities are due primarily to the quality of its employees. This is the result of multiple factors. Strong labor-management relationships and processes promote engaged and committed teams. Workforce quality is also bolstered by the department's standards and hiring practices, and by the department leadership's willingness to use the probationary employment period to truly assess suitability of the employees. Though challenged by a significant wave of retirements in recent years, retention of quality personnel is up.

- Community outreach efforts are consistently and uniformly positive. As a result, external focus groups convened in 2018 to inform this strategic planning process, and the groups consistently expressed high levels of support for the LCFD. The focus groups strongly encouraged the department to sharpen its public relations practices to better share its successes with the broader community.
- The LCFD is equipped and trained for interoperability with neighboring departments. Though relationships have historically been challenged, new leadership philosophy amplifying throughout the organization has provided the regional partners new opportunity for strengthened interoperability, partnership initiatives, and a safer focus on public and responder safety.

Limitations

- Funding is a perennial challenge, given the breadth of services and the necessity to maintain high quality standards. The community is well-served by a department that meets the standards of CPSE accreditation, but operating at those high standards also requires considerable resources.
- Station facilities, all built between 1941 and 1967, are aging and present significant operational and strategic challenges:
 - Apparatus bays are too small, hampering access to some equipment and slowing deployment of some vehicles.
 - Interior spaces are not conducive to healthy on-shift working conditions, nor do they provide equitable accommodations for men and women alike.
 - Some station locations are no longer optimal for expedient and consistent city-wide response, given how the City has developed since the stations were built.
 - Despite diligent upkeep, station conditions do not support a culture of high-performance and pose a challenge for recruiting firefighters who seek to join a high-performing organization like the LCFD.
- Leadership capacity must be improved, in order to assure continued operational excellence and to strengthen an organizational culture that supports firefighter engagement.
 - Chief Officers and Staff Captains are task-saturated with projects. The same is true for a segment of the department that bears more than their proportional share of the project work. Due to this saturation, execution is sometimes flawed – “Things fall through the cracks.”
 - The capacity of senior leaders is especially limited during this period of tremendous change, which limits the Chief Officers’ presence at stations and at community events. Some crews at Stations 2, 3, and 4 feel like they don’t see the Fire Chief, which puts engagement at risk, and leaves an impression that there is “an in crowd” and “an out crowd” for promotions and assignments.
 - While the department is characterized by a strong commitment to service, internal feedback surveys reveal that there appears to be a relatively small group of employees who do not demonstrate that commitment through their engagement in training and other activities. Company and Chief Officers have limited resources for addressing these leadership issues.
 - The age of senior leaders, and the overall youth of the organization’s seniority list, creates a need for succession planning and accelerated officer development.
- Breadth of technical skill areas puts continued excellence at some level of risk. Some department members see this as a function of maintaining “many trades,” while others believe that the root cause is the number of other duties that compete with readiness in technical areas.



Station 2 – 2018



Station 2 – 1957

Opportunities

- The City of La Crosse continues to demonstrate high levels of support for the efforts of the La Crosse Fire Department. The department recognizes that the budgetary requirements of the department represent a considerable commitment of taxpayer dollars.
- Other community stakeholders, including local business leaders, also support and seek to partner with the LCFD to support a sustainable and high-functioning organization.
- The LCFD relies on strong relationships with other agencies. These relationships include Gundersen Health Services and Gundersen Tri-State Ambulance Service, neighboring fire departments, and other La Crosse City Departments. These strong relationships promote effective and efficient service delivery.
- Collaboration with the Onalaska Fire Department and the Holmen Area Fire District is supported by labor union affiliation, wherein the union locals serving each of these municipalities are affiliates of the combined La Crosse Area Professional Firefighters IAFF Local 127.
- The LCFD's upcoming 2019 transition to be the fire suppression and emergency services provider covering the La Crosse Regional Airport represents a strategic opportunity to better serve the community.
- Likewise, 2019 negotiations to provide long-range fire and emergency medical protection to the Town of Medary have the potential to create a significant shift in the region's priority for a more robust emergency response capacity. Similar to the LCFD contractual fire protection areas in the Town of Campbell, the Town of Medary geography would position the LCFD to better partner with neighboring jurisdictions while providing a stronger level of service to our neighbors.
- The ongoing expansion of the department's ALS Paramedic first response capacity will also provide a higher level of safety and service to the community, will provide better retention of future firefighter paramedics, and strengthen the regional response capacity of our project partner Gundersen Tri-State Ambulance.
- Over the next five years, there will be significant focus on new fire station plans and construction, and strong partnerships will be a critical component of this strategy. Working in coordination with City Planning, the LCFD will be building new fire stations as neighborhood anchors for generations to come. These fire stations have the potential to facilitate additional public/private revenue generating ventures. We will also be looking for opportunities to provide additional community centers, police precinct offices, and a host of other critical neighborhood support opportunities. These decisions made in the next five years will have a tremendously positive impact for the next 50-100 years.

Threats

- As a public agency and similar to any fire department, La Crosse depends on support from policy-makers for its operations and for its long-range sustainability. While the City has steadfastly supported the department, it is important to note that long-range projects within the fire department require longer-range commitments from city policymakers.
- The City of La Crosse serves a very large community relative to its tax base. This is due in part to the number of people commuting into the city, and to the number and size of tax-exempt organizations functioning in the community. The potential risk factors concern the feasibility of budgeting for the LCFD and competing priorities for limited resources.
- The city's needs for other infrastructure investments competes with the fire department for funding.
- The pool of qualified job applicants continues to shrink, both locally and nationwide.
- The fire service nationwide has experienced a cultural shift as the workforce of younger firefighters is less willing to work extra shifts, take on additional duties, or otherwise compromise personal and family time for work responsibilities beyond the standard scope of their positions. This is a risk factor to which La Crosse leaders must remain sensitive.
- Demand for emergency response services could exceed capacity. La Crosse is thriving; housing density is increasing markedly, mostly in higher-density occupancies. Multi-unit housing and assisted living facilities not only increase call volume, but also increase the complexity of access. The growing and aging population will generate more calls for service, and these calls may take longer, on average, than is the case today.
- While serving the La Crosse Regional Airport and potential expansion into the Town of Medary is noted as a strategic opportunity, the transition effort in particular also presents a threat to achievement of other concurrent strategic initiatives.
- While the department cites the cooperation with neighboring departments as a strength, efficient shared operations require that the departments become interoperable, using compatible equipment, tactics, and training. This requires that all parties be willing and able to make this investment.
- Likewise, as decisions are made on new fire station locations, neighboring jurisdictions seem reluctant to discuss regional location needs analysis to better support the greater community. With neighboring jurisdiction fire stations as close as one-mile away from current LCFD fire stations and running independently from each other, it begs for analysis of a more regional analysis of effective emergency service coverage. While positive support for this idea was offered by external focus group members who live in these neighboring communities, some of the communities and members of their fire departments seem reluctant to engage in this discussion in earnest.

The strategic initiatives framed in the following section are intended to guide the actions that will help LCFD pursue the mission defined above, in light of these strategic factors.



Strategic Objectives and Initiatives

The La Crosse Fire Department is committed to professionalism: to doing the work right, in a spirit of service to others.

Delivering on this commitment requires ongoing investment; it pays off directly in terms of lives and property saved, risks averted, and problems addressed. Indirect benefits include enhanced community vitality through public safety and sound risk management, as well as incremental benefits of lower insurance premiums for businesses due to the department's relevant ISO rating. This strategic plan is comprised of the following initiatives, undertaken in light of the strategic self-assessment explained in the previous sections. Above all, our strategic aim is to assure that the department remains capable and ready to meet the community's needs in the future.

The work of implementing the strategic plan over time is organized in terms of the strategic initiatives defined below:

1. Community Risk Management and Outreach
2. All-Hazards Response Capability
3. Emergency Medical Services – Advanced Life Support (ALS) Response
4. Leadership and Organizational Development
5. Employee Fitness and Wellness
6. Infrastructure and Technology

Each of these is described in terms of (1) overall objective, (2) high-level tasks, and (3) timeline.

These initiatives are framed to be flexible; most include key decisions that will affect how the initiatives are to be pursued. This uncertainty is intentional; our aim is to continue to learn throughout implementation of our plans, and to adjust course based on that learning. Moreover, the department recognizes a high level of dependency on outside factors for the achievement of many objectives: this includes city funding, as well as cooperation from other stakeholders. For these reasons as well, flexibility is a built-in feature of this strategic plan.

A Balanced and Integrated Portfolio of Initiatives

External Focus



Internal Focus



Initiative 1: Community Risk Management and Community Outreach

Overall Objective: Alleviate and minimize community-wide safety risks. Raise awareness among community stakeholders; study and assess risks and implement strategies to reduce risks on a strategically prioritized basis. Goals are fire prevention, injury prevention, and improved emergency responses based on sound data and analysis. The department also seeks to achieve an ISO rating of 1.

Major tasks:

1. Add leadership capacity to administrative, communication, and strategic efforts.
 - 1.1. Establish “Captain of Administration Technical Services and Community Relations” position. (2019)
 - 1.2. Establish “Community Risk Reduction Education Specialist” position. (2019)
 - 1.3. Develop and support the new “Captain of Administration Technical Services and Community Relations” position. Define parameters of position. Support organizational information technology and data management goals. Support public information, marketing, and social media efforts (April 1, 2019 start date.)
 - 1.4. Develop and support the new “Community Risk Reduction Education Specialist” position. Define parameters of position – roles, responsibilities, location, etc. Develop and market new programs. Develop sustainable funding means for the programs. (July 1, 2019 start date.)
2. Reorganization of property inspections processes. Begins with EnerGov transition and training. Redefine inspection districts and inspection frequencies. We will optimize our inspection frequencies and resources to comply with, but not exceed state standards. (Redistricting 2019 Q1. Transition 2019 Q3. Task complete - 2019 Q4.)
3. Achieve Fire Department ISO rating of 1. (2019-2021)
 - 3.1. Work with Water Department to update software and implement additional flow testing each year.
 - 3.2. Support EDC needs to update dispatch capabilities. This may require outside funding from grants.
 - 3.3. Secure automatic-aid agreements with neighboring jurisdictions.
 - 3.4. Complete ISO assessment process.
4. Upgrade pre-planning capacity. (2019-2021)
 - 4.1. Research available pre-planning systems. (2019-2020)
 - 4.2. Obtain funding and develop implementation plan. (2020-2021)
5. Develop and implement alternative funding strategies. (2019-2020)
 - 5.1. Build on existing grant committee and re-focus on needs and goals. (2019)
 - 5.2. Explore development of a LCFD Foundation. (2019-2020)
 - 5.3. Employee development to support grant writing and management capacity. (2019-2020)
6. Strengthen Social Media Plan. (2019-2020)
 - 6.1. Current media are Facebook and Twitter. Solidify processes for Facebook and Twitter, and add Instagram.
 - 6.2. Re-envision and relaunch “Fire Watch” community newsletter, including automated outreach tools.
 - 6.3. Rebuild department website in coordination with City IT switching website providers. (2020)
 - 6.4. Strengthen and develop policy and procedure for information flow to social media manager.
 - 6.5. Organize pictures and graphics storage for efficiency purpose.
 - 6.6. Create and manage reports based on data analytics of social media efforts to strengthen support of this work effort.

7. Update organizational Mission and Values statements. (2019)
 - 7.1. Ratify revised statement of mission and values.
 - 7.2. Integrate new content in branding and public communications.
8. Outreach to Neighborhood Community Groups as allies in risk reduction. (2019-2020)
 - 8.1. Identify named community leaders and meeting schedules. (2019 Q1)
 - 8.2. Develop community relations strategy with targeted topics and messages.
 - 8.3. Meet with selected leaders to identify and prioritize community risk management needs.
 - 8.4. Implement contact plan.
9. Other outreach efforts. (2019-2023)
 - 9.1. Build on annual open house to include other events, e.g. "Safety Saturdays".
 - 9.2. Bi-annual Citizen and/or Media academies. (2019 Q3, 2021 Q3, 2023 Q3)
 - 9.3. Build awareness of capabilities, especially EMS Apparatus branding. Dedicate larger apparatus to local schools nearest to each fire station. "First due" marketing campaign with local businesses.
 - 9.4. Partner with School District (public and private schools) to expand current fire prevention activities to include ASHER, EMS Stop the Bleed, and other Risk Reduction goals for respective age groups.
 - 9.5. Partner with community support entities (county health, senior housing, disability support groups, etc.) to provide consistent message to at-risk demographic groups.



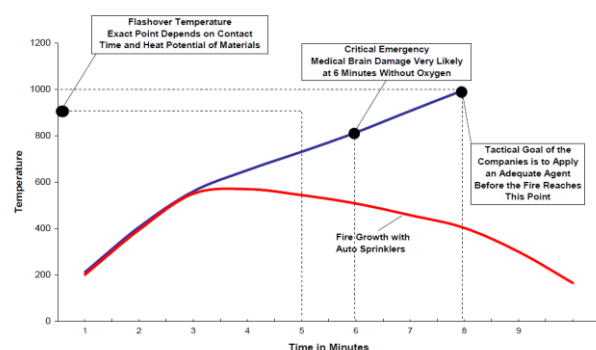
Initiative 2: All-Hazards Response Capability

Overall Objective: Implement incremental improvements to response capabilities. Provide improved interoperability with neighboring jurisdictions and enhance mutual-aid and regional response plans for incidents that exceed capacity of the individual organizations. Strengthen fiscal sustainability of the LCFD technical rescue capabilities.

Major tasks:

1. Implement and sustain Airport Rescue and Fire Fighting (ARFF) service at the La Crosse Regional Airport. (2019-2021)
 - 1.1. Identify and train staff for ARFF positions. (2019 Q1-Q2)
 - 1.2. Develop relevant policies and procedures to meet Airport, LCFD, and FAA standards.
 - 1.3. Assess, develop, and build adequate staffing matrix. Determine true staffing needs to meet industry safety standards, and make a data-driven argument for support of the plan.
 - 1.4. Build this ARFF component of our response system into the LCFD Standards of Cover.
2. Evaluate and implement NFPA 3000 Active Shooter and Hostile Event Response (ASHER) standard. (2019-2021)
 - 2.1. Assess standard and determine equipment and training needs. (2019)
 - 2.2. Develop policies, procedures, and training to meet standard. (2019-2020)
 - 2.3. Engage LCPD and other agencies to create capacity for coordinated response. (2019)
 - 2.4. Obtain funding to support equipment, training and exercise needs. (2019-2020)
 - 2.5. Consider large-scale exercise. Seek resources. (2020-2021)
 - 2.6. Increase LCFD Tactical EMS (TEMS) membership from four to six personnel. Develop funding strategy and ongoing equipment maintenance strategy in cooperation with LCPD. (2019-2020)
3. Evaluate and Increase Wildland/Urban Interface Fire Response Capabilities. (2019-2021)
 - 3.1. Complete risk assessment. Develop strategy. (2019-2020)
 - 3.2. Develop appropriate policies and procedures. (2020)
 - 3.3. Secure funding and procure necessary PPE and equipment. (2020)
 - 3.4. Implement appropriate training regimen. (2020-2021)
 - 3.5. Strategy includes strengthening partnerships with neighboring agencies with greater equipment caches and greater needs. Joint training potential. (2020-2021)
4. Special/Technical Operations Sustainability – Same challenge for all teams. Training costs, equipment costs. (Assessment and Budget Strategy 2019; Impact 2020-2021)
 - 4.1. Complete assessment of equipment and training needs for each special operations team listed below.
 - 4.1.1. USAR (Technical Rope Rescue, Confined Space Rescue, Trench Rescue, Collapse Rescue, Search)
 - 4.1.2. HAZMAT
 - 4.1.3. Water/Ice/Dive
 - 4.1.4. TEMS
 - 4.2. Create annual funding goals for each team, based on average of annual needs assessment.
 - 4.3. Investigate alternative funding strategies.
 - 4.4. Gain buy-in and support from municipal and regional representatives.
 - 4.5. Complete renewal of WI USAR Task Force 1 and WI State HAZMAT contracts, and perpetuate involvement with both state strategies. (2019)

- [illegible]



Initiative 3: EMS/ALS Response

Overall Objective: Expand ALS Paramedic first response capacity citywide in order to provide the highest level of pre-hospital emergency medical care in partnership with Gundersen Tri-State Ambulance Service.

Major tasks:

1. Expanding the ALS capability to the entire community with paramedics stationed at all fire stations. (2023)
 - 1.1. Prepare and certify an increased number of paramedics. Currently eight paramedics in 2018. Final target goal of 27-30 paramedics. (2023 or beyond. Targets of opportunity, i.e., hiring, training grants, etc.)
 - 1.2. Acquire cardiac monitors and ALS equipment to equip all fire stations with consistent equipment. (2019-2021)
 - 1.3. Improve collaboration, interoperability, and training, with Gundersen Tri-State Ambulance (2019-2020)
 - 1.4. Update Emergency Medical Dispatching (EMD) training and procedures, to include updating county ordinance related to EMD information re-communicated between Tri-State Dispatch and EDC. Identify safety gains through proper use of available EMD codes to identify emergent response versus non-emergent responses.
 - 1.5. Participate in long-range strategic planning with Gundersen Tri-State Ambulance. Develop a mutually sustainable economic model that supports the partnership long-range. (2019)
2. Create an “EMS Coordinator” position as a primary point of contact for the department, the public and for other agencies. This position will also be responsible for coordinating and overseeing consistent training and quality assurance of EMS operations capabilities. (2019)
3. Link with community outreach initiative to inform relevant branding processes and to build public awareness of LCFD EMS Services. (2019-2020)
4. Assess demand and potential impact of community paramedicine partnerships. While an overall low-priority, the LCFD will watch for partnership opportunities to engage with Gundersen Health System and Mayo Clinic Health System on this state and national service trend. (2019-2023)



Initiative 4: Leadership and Organizational Development

Overall Objective:

Build leadership capacity to support operations and strategic development of the LCFD, consistent with our core values of Respect, Integrity, Service, and Excellence. Develop future leaders at all levels, and foster a high-performance culture of professionalism. Establish and uphold performance standards for all roles in the department.

Major tasks:

1. Leadership development for officers and aspiring officers. (2019 prep, 2020 program launch, 2021-2023 program assessment and adjustments)
 - 1.1. Create an in-house Officer Development training plan. Utilize internal staff and outside educators as part of a coordinated program of leadership development.
 - 1.2. Utilize state and national conferences to develop our own leadership training capacity and identify future external presenters to add to the LCFD officer development program.
 - 1.3. Explicit goals to include developing leaders who, in turn, develop other leaders. Train-the-trainer opportunities should be prioritized over other options
2. Finalize Training and competency plans (“task books”) for all roles and ranks. (2020-2022)
 - 2.1. Currently have task books for probationary Firefighters and Engineers. Establish task books for Lieutenant, Captain, and Chief Officer positions.
 - 2.2. Establish policies and processes to support or require completion (when appropriate or mandated) of a task book before being qualified to act in role and/or promote into role. Task books should provide ongoing professional development direction and goals post-promotion. Job/position descriptions updated to match task book goals. (2020-2022)
3. Develop plan for organizational leadership continuity. (2019-2023)
 - 3.1. Develop career paths for promotions.
 - 3.2. Project position vacancies and engage department leaders in focused mentorship to prepare interested candidates for promotion.
4. Improve inter-divisional integration. Strengthen alignment of Inspectors and Operations personnel on consistent building inspection program. Support target hazard and commercial pre-planning goals. (2019-2021)
5. Strengthen and Reinforce Incident Management Policies, Practices, and Training Standards. (2019-2021)
 - 5.1. Renew commitment to all personnel completing Blue Card All-Hazards Incident Management program. Plan and fund as a priority. Ongoing refresher training strategy and ongoing assessment of post-incident reviews. (2019-2020)
 - 5.2. Create strategy for additional Command Staff training and exercise. (2019-2020)
 - 5.3. Reinforce clear policy and procedure on incident management strategy and assignments of Division/Group Supervisors and dedicated Safety Officer function to support overall incident strategy and safety. (2019)

Initiative 5: Employee Fitness and Wellness

Overall Objective: Support all employees' efforts to work safely, to maintain fitness for duty standards, and provide opportunity for overall employee wellness throughout their careers. Remain an employer of choice while upholding high standards for performance through superior workplace wellness measures.

Major tasks:

1. Occupational Cancer Exposure Risk Reduction program.
 - 1.1. Develop policy and procedural guidance regarding decontamination equipment and industry best practices. (2019-2020)
 - 1.2. Provide a second set of turnout gear to all firefighting personnel. Consider funding options. Goal is to reduce employee exposure and contaminants in stations and on apparatus. To immediately wash contaminated gear while on duty, a second set is essential for success of program. Develop annual budget strategy and dedicate funding for PPE replacement program in line with national and manufacturer standards. (2019-2021)
 - 1.3. Ensure that all front line apparatus have consistent gross decontamination equipment. (2019-2020)
 - 1.4. Assess and implement "clean cab" concept evaluation and implementation. Determine best options for the LCFD. Add this consideration to future apparatus specifications. Implement on new apparatus and assess retro-design of existing apparatus. (2019-2023).
2. Fitness and Wellness Initiative.
 - 2.1. Develop and implement "Fitness for Duty" standards for job specific functional fitness and ongoing fitness assessment from hire to retirement. Provide or coordinate fitness data on annual employee physical exams. (2019-2021)
 - 2.2. Continue development of partnership with Mayo Health System to develop, implement, and study long-term Fitness and Wellness Program efforts. (2019-2020)
 - 2.3. Certify minimum of three Peer Fitness Trainers to manage workout programs and peer coaching. (2020-2021)
 - 2.4. Explore and implement expectations for daily workout time and fitness goals for 56-hour and 40-hour personnel. Engage labor and management to make fitness for duty an organizational priority. (2019-2020)



3. Develop and Implement Incident Rehabilitation (Rehab) Program. Current efforts are underway.
 - 3.1. Engage with Tri-State Ambulance and our Medical Director to develop policy and procedures, and to support incident Rehab operations. (2019-2020)
 - 3.2. Develop consistent Rehab equipment and supply cache. Determine storage, transport, and inventory management needs and processes. (2020-2021)
4. Mental Health Awareness and Support. (2019-2023)
 - 4.1. Research, develop, and document policy, procedures, and resources for critical interventions. Work with IAFF, IAFC, and other national partners to develop and implement the most effective programs.
5. Complete implementation of Random Drug Testing Program in line with L127 CBA. (2019)
6. Complete Department Plan for Line-of-Duty Fatalities, Active-Duty Fatalities, and Retiree Fatalities.
 - 6.1. Complete LAST/LODD Plans in coordination with State LAST Program and guidance from the National Fallen Firefighters Foundation. Includes annual data collection on critical personal information and last wishes. Align plans and coordinate contact information with IAFC, IAFF, PFFW, WSFCA, and other support agencies. Secure storage and policy development to support annual review and training. (2019)
 - 6.2. Support development and implementation of the Wisconsin Fire Chiefs Education Association's "Chief-to-Chief Peer Support Program". (2019-2020)



Initiative 6: Infrastructure and Technology

Overall Objective: Rebuild of facilities to support our operations and our culture. Address IT shortcomings and put necessary systems in place.

Major tasks:

1. New or Refurbished Fire Station Projects.
 - 1.1. Follow direction from the Mayor's "Fire Station Task Force" to refurbish or replace all four existing stations, and to build a new fifth station on the south side of the city where data shows continued city growth and the estimated 15-50 year impacts of the Town of Shelby/La Crosse Boundary agreement. (2019-2023)
 - 1.2. Use allocated Capital funds for site assessment, property acquisition, and architectural design. Secure additional municipal funding for capital investment. Explore and engage public-private partnerships. Explore partnership opportunities with internal City Departments and external governmental partners. (2019-2023)
 - 1.3. Convene "Station Design Committee" including cross-section of organization to work with architectural consultants to design stations based on existing needs assessment and in coordination with target opportunities. (2019-2023)
 - 1.4. Engage on Station Design Conference opportunities and dedicate training and travel funding to get critical project personnel to educational and networking opportunities. (2019-2020)
2. Strengthen Fleet and Facility Management Program.
 - 2.1. Support the Mayor's initiative to develop long-range plan with the city for forecasted replacement of heavy apparatus and support vehicles. (2019-2020)
 - 2.2. Increase effectiveness and management of fleet and facilities maintenance program. Research and implement asset management technologies in coordination with city efforts on this initiative. (2019-2021)
 - 2.3. Research and implement strategy for the addition of a dedicated 40-hour Emergency Vehicle Technician. Consider partnerships with LCPD, the regional airport, and neighboring jurisdictions to expand on existing maintenance programs and provide budget support. (2019-2023)
3. Complete Self-Contained Breathing Apparatus (SCBA) transition. (2019)
 - 3.1. Complete purchasing plans and inventory management.
 - 3.2. Complete training plans incorporated with annual SCBA qualification assessment.
 - 3.3. Develop policy and procedure to address use and maintenance needs.
4. Develop and implement LCFD Information Technology (IT) Strategy in coordination with City IT Department and County Dispatch (EDC).
 - 4.1. Complete EnerGov inspection records transition in already progress. (2019)
 - 4.2. Complete Network File Storage and SharePoint Transition projects already in progress. Provide training and policy guidance to support ongoing use, maintenance, and records retention of electronic records storage in line with City policy. (2019)
 - 4.3. Develop and secure dedicated funding strategy for critical technology platforms (TargetSolutions, Lexipol KMS, IamResponding Application) and new IT opportunities as they arise. Work with the city IT Department to prioritize systems due for replacement or new implementation. (2019-2023)
 - 4.4. Assess and develop strategy with City IT and Departments for long-range radio maintenance and replacement plans. (2019-2022)

- 4.5. Participate in EDC CAD conversion process to address LCFD needs. Assessment should include GPS location technology, CAD Mapping advances, and capacity for increased station alerting capacity. (2019-2021)
- 4.6. Evaluate and plan for updated station alerting system. Develop plan and funding strategy in coordination with EDC CAD and new Fire Stations projects. (2019-2023)
- 4.7. Evaluate existing Records Management System (RMS) and complete RFP process to increase the effectiveness of our RMS. Work in partnership with City IT, LCPD, TSA, and EDC to create streamlined records management system and processes. (2020-2021)
- 4.8. Complete transition to new First Watch data management system to support ongoing data-driven decision making and support accurate data reporting. Align with RMS strategy and assessment, and connection to existing and future data streams. (2019-2020)
- 4.9. Research and consider implementation of new national FirstNet Mobile Phone Communications capability. If assessment leads to department-wide utilization, develop training, policies and procedures to support implementation and support long-range strategy. (2019-2020)
- 4.10. Assess existing education simulation programs for Fire and EMS training needs. Create plan and funding strategy to increase IT influence on mobile Incident Management and EMS training. (2019-2021)
5. Explore use of camera technology for support of investigations and public education efforts.
 - 5.1. Explore and implement body-worn camera option for Fire Investigators and select Command Staff. Align policies, procedures and equipment with LCPD body-worn-camera program. (2019-2021)
 - 5.2. Assess firefighter helmet camera systems and issues related to social media plan, data retention and public records impact. Develop policy and plans based on outcomes of assessment. (2019-2020)
6. Complete Needs Assessment and Design Strategy for Mobile Incident Command support apparatus.
 - 6.1. Needs assessment to determine inter-department needs to include Incident command, rehab, mobile scba air system, and specialty team equipment transportation strategies. Assessment should include partnership opportunity with LCPD and other city departments and regional partners. (2019-2020)
 - 6.2. After assessment and design phase, determine funding strategy to include council support and to develop partnership and alternative funding strategy. (2020-2022)
 - 6.3. If this project becomes a feasible and community supported reality, develop policies and procedures to effectively utilize asset in support of incident management and emergency management goals identified during assessment phase. (2020-2023)
7. Assessment and Development of Traffic Signal Preemption Systems
 - 7.1. Partner with LCPD to assess signal preemption technology. (2019)
 - 7.2. Work with City Management and regional partners to develop funding strategy to incorporate assessment needs into implementation strategy. (2020-2023)



Conclusion

This strategic plan is intended to guide the organization for the next five years and beyond. It was created with thoughtful input from internal and external stakeholders, guided by a group of committed fire department leaders of all ranks, and representing all areas of the LCFD.

Plans and circumstances change. The initiatives that form the core of this plan were written with a mixed set of action steps: large and small, short-term and long-term, internally and externally focused. Of course, all of these efforts are undertaken in order to assure that the department remains equipped and focused on service to the community. The steps necessary to maintain that sustainable readiness have been chosen and prioritized with care. They were also framed to be flexible: as leaders, we expect to adjust course and reprioritize based on our experiences, on changing conditions, and on the needs of the city. Many initiative timelines can be modified based on resource availability. Others may become more or less urgent based on changing circumstances, and we are prepared to adjust accordingly.

The La Crosse Fire Department wishes to thank stakeholders and others interested enough to study this plan, and the organization welcomes input. Please direct questions or comments to Fire Chief Ken Gilliam.



Appendix: Strategic Planning Process Overview

The strategic plan was undertaken by the La Crosse Fire Department, and led by a Strategic Planning Working Committee described below. Captain Lance Tryggestad chaired this effort, with executive sponsorship from Fire Chief Ken Gilliam.

Strategic Planning Working Committee Members:

- Aaron Bolstad, Captain
- Adam Foley, Lieutenant
- Clayton Anderson, Firefighter
- Craig Snyder, Assistant Chief
- David Duchrow, Lieutenant
- David Snow, Battalion Chief
- Frank Devine, Division Chief
- Greg Temp, Captain
- Isaac Zurawski, Engineer
- Jeff Murphy, Assistant Chief
- Jeff Schott, Battalion Chief
- Jesse Walters, Lieutenant
- Jim Hillcoat, Captain
- Josh DeFlorian, Engineer
- Ken Gilliam, Fire Chief
- Lance Tryggestad, Captain
- Tom Wallerich, Battalion Chief

Key inputs to the strategic plan included:

- Critical assessment of progress and learning from the most recent strategic plan.
- Multiple focus groups comprised of external stakeholders.
- Individual interviews with department leaders.
- An online questionnaire answered by nearly all department members.
- Two extended working sessions with the above-described working committee.
- Ad hoc revision.
- Review of CPSE accreditation process expectations.

Other Contributors:

Chad Weinstein of Ethical Leaders in Action facilitated internal working sessions, gathered input from department members through interviews and an online questionnaire, and worked with department leaders to draft this plan document.

Fred Kusch of JFK Associates gathered critical input from external stakeholders primarily through focus groups conducted in and around La Crosse.

The Center for Public Safety Excellence and the Commission on Fire Accreditation International provided training and professional standards that guided this process.





2017/09/21



Standards of Cover

La Crosse Fire Department 2019



Introduction

The following report serves as the La Crosse Fire Department “Integrated Risk Management Plan: Standards of Cover” document. The Commission on Fire Accreditation International (CFAI) defines the process, known as “deployment analysis”, as written procedure which determines the distribution and concentration of fixed and mobile resources of an organization. This document will assist the agency in ensuring a safe and effective response force for fire suppression, emergency medical services, and specialty response situations in addition to homeland security issues.

Creating an Integrated Response Management Plan Standards of Cover requires that a number of areas be researched, studied, and evaluated. The following report will begin with an overview of the community and the agency. Following this overview, the agency will discuss areas such as risk assessment, critical task analysis, agency service level objectives, and distribution and concentration measures. The agency will provide documentation of reliability studies and historical performance through charts and graphs.

The analysis for this document includes a historical perspective using data from the years 2013, 2014, 2015, 2016 and 2017. Although all incident types are taken into consideration, the primary efforts remain with all emergency fire, emergency medical, emergency rescue, emergency hazardous materials incidents, and emergency report out incidents (bomb threats, power line complaints, odor complaints, water complaints, and airport stand by).

Table of Contents

Introduction	2
Executive Summary	5
Standards of Cover and Accreditation.....	8
Community Overview	9
Services Provided	23
Historical Formation and Development of the La Crosse Fire Department	23
Legal Establishment	27
Current Station Locations	28
La Crosse Fire Department Apparatus	30
La Crosse Fire Department Table of Organization	32
Agency Overview	33
The Future	38
Community Expectations and Performance Goals	39
Community Benchmarks and Baselines	44
Performance Objective Measurements	45
Community Risk Assessment	48
Community Risk Management	49
Planning Zone Risk Assessment and Response Analysis	50
Structural Fire Risk Assessment	54
Non-Structural Risk Assessment	55
Natural Hazard Assessment	61
Population Analysis	68
Technological/Human Hazard Assessment	70
Security Hazard Assessment	74
Critical Task Analysis	76

Historical Perspective and a Summary of the System Performance with Performance Objectives and Performance Measures.....	77
Resource Management	77
Evaluating Community Risk	80
Evaluating Fire Suppression Capabilities	81
Evaluating EMS Capabilities	85
Distribution	87
GIS Analysis	88
Concentration	89
Performance Objectives	91
Availability vs. Reliability	100
Stop-Loss Points and Resources Exhaustion	101
Comparability	102
Effective Response Force (ERF)	103
Demand Planning Zone Evaluation	124
Compliance Methodology	125
Strategic Initiatives and Goals	126
Conclusions/Recommendations	127
Appendixes	Separate documents

Executive Summary

The La Crosse Fire Department is committed to being re-accredited through the Commission on Fire Accreditation International (CFAI). Part of this process involves creating a Standards of Cover document to assist with:

- Evaluating and defining an agency's baseline of operations
- Identifying benchmarks for achieving the agency's goals and objectives
- Determining levels of service for all portions of the community
- Measuring an agency's performance over different budget or operational years

Risk Definitions

The agency has conducted an overall risk assessment of the community. Both fire and non-fire risks were evaluated; starting with individual buildings and continuing with a systematic evaluation of each planning zone. Fire risks were categorized as low, moderate, high, and maximum/special; based on several life safety and consequential factors such as probability, economic impact, etc. Non-fire risks including medical risk, rescue risk, hazardous materials risk, and natural disaster risk were also included in the evaluation and categorized in a similar manner.

Performance Goals, Objectives, and Measures

The agency set performance goals and objectives and measured for five risk categories; emergency fire, emergency medical, emergency rescue, emergency hazardous materials, and emergency report out incidents (bomb threats, power line complaints, odor complaints, water complaints, and airport standby).

Level of Service

It is necessary for the agency to evaluate historical response data for the past five years (2014 through 2018) for the typical emergency response risks for; emergency fire, emergency medical, emergency rescue, emergency hazardous materials, and emergency report outs within the community.

Data was measured against current baseline performance objectives. Once the analysis was completed, the agency established benchmark response performance objectives, which will become what the agency will continue to strive to meet as part of its on-going efforts towards self-improvement.

Benchmark service level objectives have been established for the overall initial response for the first arriving units. The objectives further describe responses for low, moderate, and high risk factors for each of the five risk categories (emergency fire, emergency medical, emergency rescue, emergency hazardous material, and emergency report out incidents).

Availability and reliability of each first due unit within their respective districts was measured to determine how often the unit was available to respond to calls within their area of coverage. Of those calls responded to within each planning zone of the respective area of coverage, further evaluation was conducted to determine the percentage of times they were responded to within the established benchmarks.

Compliance Methodology

Established performance objectives and other goals and objectives will be monitored regularly by command staff to ensure that the plans put into place for self-improvement are measureable and attainable. When necessary, modifications to the various systems will occur as part of the compliance methodology. Established goals and objectives will also be monitored for progress to completion; with new goals and objectives being introduced on a continuing cycle.

Conclusions and Recommendations

The agency has experienced success during the time period since the development of its first Standards of Cover document and the focus it brought to quality improvement. With a new Fire Chief, new senior management structure, new Accreditation Manager, and many other departmental leadership roles that have new members in place, the agency has a renewed focus on quality improvement data and goals. A summary of recommendations are as follows in no particular order of importance:

- The agency is upgrading its data analysis software to the First Watch data management platform. The First Watch program will allow the agency to address issues more timely and effectively by affording us the opportunity to have response data in a real time format.
- The agency is working as part of a citywide transition to the EnerGov platform for tracking and managing building inspection data and progress. Future work will be done to integrate preplanning and chronic nuisance building strategies between all city departments.
- The agency is in the process of replacing Engine 4 and that project is expected to be completed in 2018. The agency is also in the process of replacing its 1985 Water Tender with a new, combined Pumper/Tender in 2019. This will not only provide us a more reliable water tender, but also add a versatile reserve engine to our fleet.
- The agency will begin to merge its existing policies and procedures into the Lexipol Knowledge Management System in 2018, in effort to provide dependable and defensible policy to our personnel. The system also affords us individual policy acknowledgement accountability and additional training capacity.
- Beginning in 2018, the agency will begin using the Target Solutions training management platform for training and occupational compliance standards. This program will allow the agency to better track certifications, probationary firefighter task books, education assignments and verify individual training records.

- The agency has completed ongoing needs assessment of decontamination equipment and procedures. Occupational exposure awareness training has been completed in 2017 to address alarming health statistics, and the agency will focus its efforts on adding exhaust capture systems and turnout gear extractors in all four fire stations as future opportunities and budgets processes allow.
- The end of 2017 has shown some initial promise towards an emerging opportunity to get the agency's Paramedic-level trained personnel approved to work as first-response Paramedics within our response system. This would address recruitment and retention issues and allow the agency to provide a higher standard of care. Negotiations will continue into 2018 with the hopes of a pilot program beginning in early 2019.

Although the agency has identified specific improvement needs and challenges, it is confident that by working within the established parameters identified above and within other applicable accreditation documents, the agency will meet its performance objectives and expectations of the CFAI.

Standards of Cover and Accreditation

The Standards of Cover is a major component of the agency's commitment towards the internationally recognized accreditation process. Through the coordinated assistance of the Commission on Fire Accreditation International (CFAI), the agency's self-assessment efforts towards achieving continued improved services will evolve for years to come.

The CFAI specifies that an agency must review its historical data for a minimum of five years for a valid analysis. Attaining accreditation will benefit both the agency and the community it serves by creating a culture that focuses on self-improved services through the effective implementation of current and identified future resources.

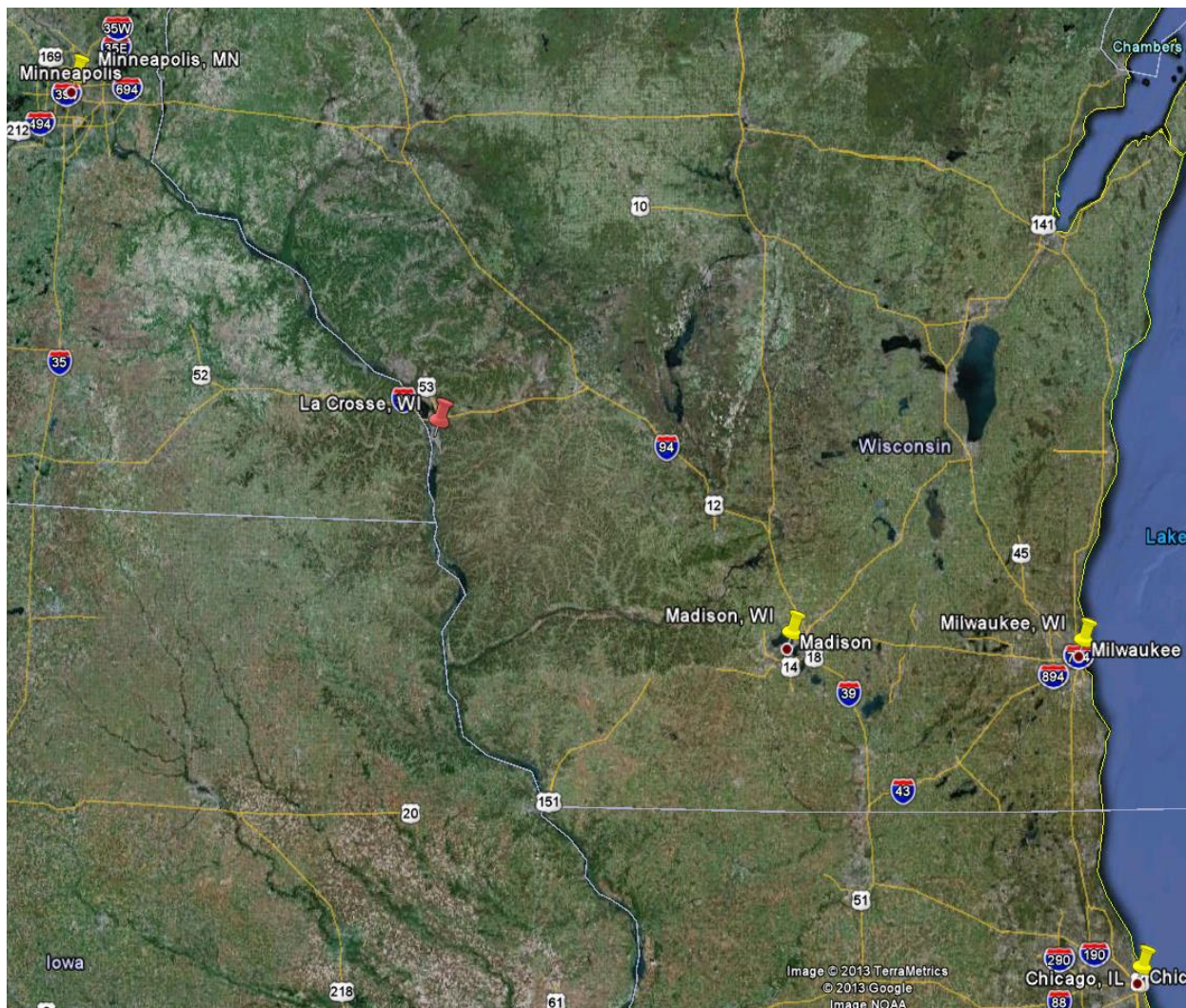
This process also encourages and assists the agency with improved decision making policies, procedures, and practices that will positively impact the organizational culture.

Community Overview

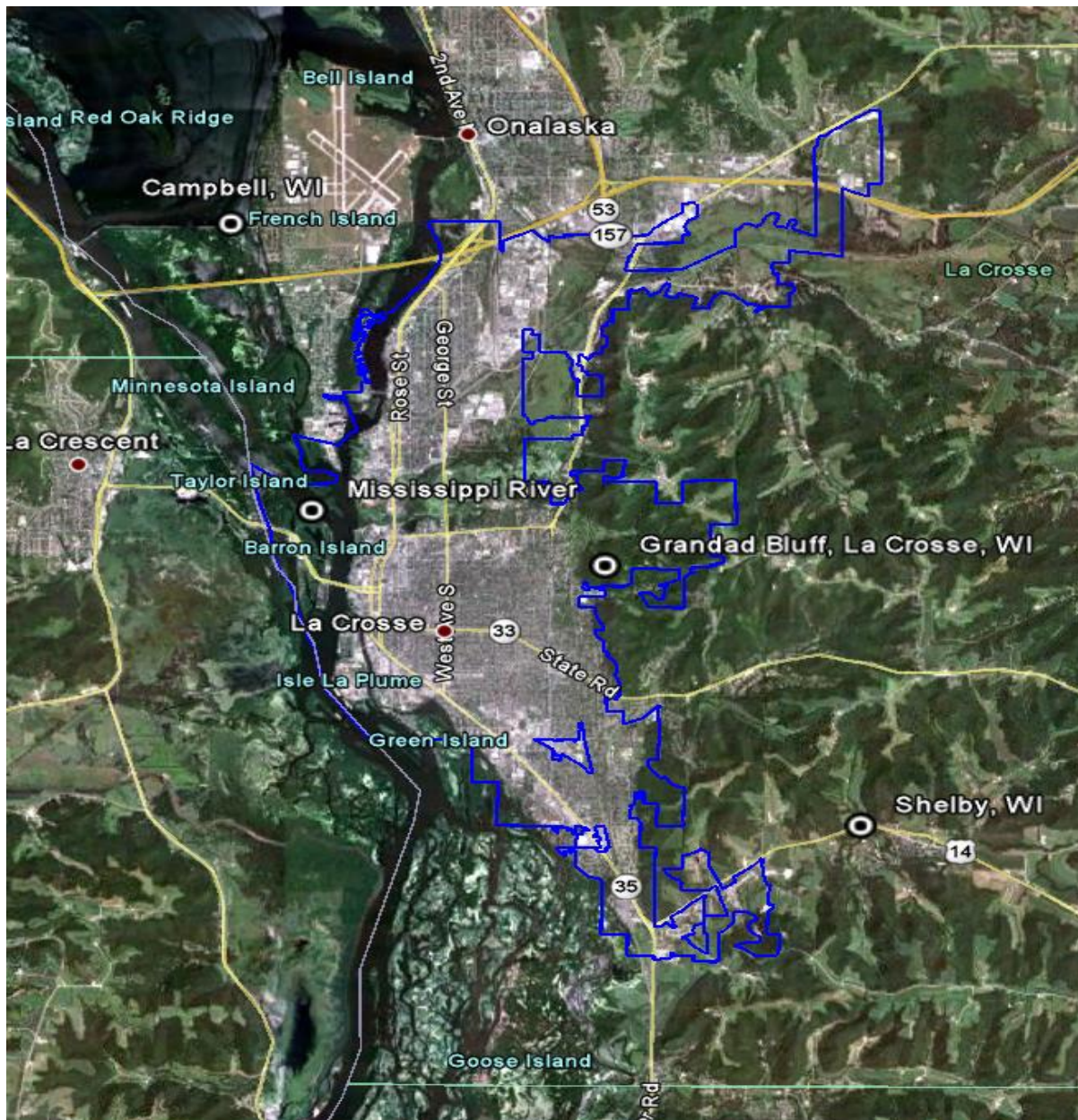
“Here is a town of twelve or thirteen thousand population with electric lighted streets and with blocks of buildings which are stately enough, and architecturally fine enough to command respect in any city. It is a choice town and we made satisfactory use in roaming it over.”

-Mark Twain on La Crosse, Wisconsin in 1882

The City of La Crosse is located on the mighty Mississippi River, approximately 140 miles northwest of Wisconsin’s capital city of Madison. La Crosse is located approximately 155 miles to the southeast of Minneapolis, Minnesota and 280 miles to the northwest of Chicago, Illinois.



La Crosse has a resident population of 51,800 and covers 22 square miles. Working, visiting, and student populations swell the daily population to more than double the population. The shape of the city is determined by the Mississippi River on the west and south and the sandstone bluffs on the east. These defining characteristics of La Crosse have caused the city to become very long and narrow. A large marsh along the La Crosse River separates the city between north and south. To the north lies the Town of Campbell and the City of Onalaska, and its southeast border meets the Town of Shelby.

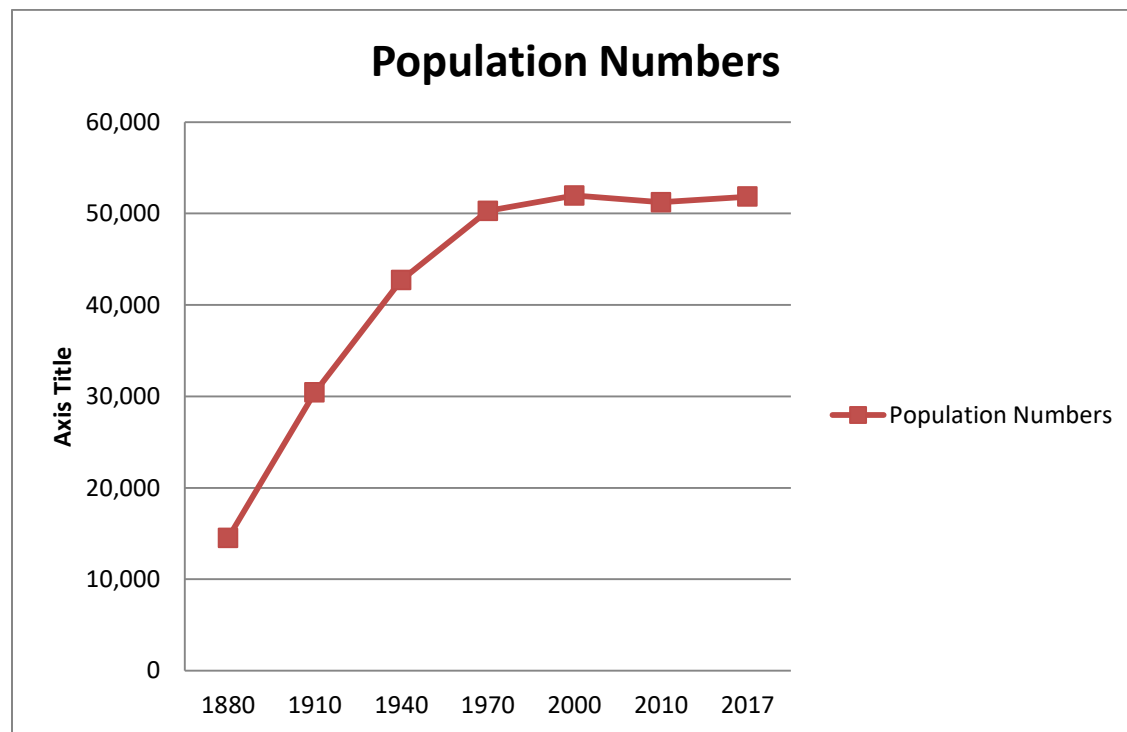


La Crosse began as a trading post on the Mississippi River. The city, as we know it, developed beginning in 1851 with the introduction of local sawmills. This industry caused a significant increase in population, and an increase in the range of the city borders. Steamboat traffic grew from four boats per year in 1851, to 1,312 boats in 1858. La Crosse continued steady expansion, both in population and area, when the first railroad line, the La Crosse & Milwaukee Railroad was built into La Crosse in 1858. Railroads helped to bring waves of immigrants to the city between 1870 and 1890. These immigrants were predominantly German and Norwegian. The population of foreign born immigrants grew as high as 37% in 1880. The logging industry eventually began to decline near the end of the nineteenth century when the supposedly “inexhaustible” supply of pine was exhausted. However, manufacturing jobs were on the rise, so the economic progress of La Crosse was not halted and rather shifted in a new direction. La Crosse became home to several industries including a rubber mills, several breweries, and a button company.

La Crosse’s population grew steadily, until nearly reaching its population ceiling in the 1970’s. La Crosse had maximized its land use, and its resident population has remained steady to current day. La Crosse’s resident population experienced a very slight decline from 2000 to 2010 (as noted in the following charts) but appears to be leveling out with a population of 51,834 in 2017. The following charts also provide population demographic data to paint a picture of the make-up of the residents of the city.

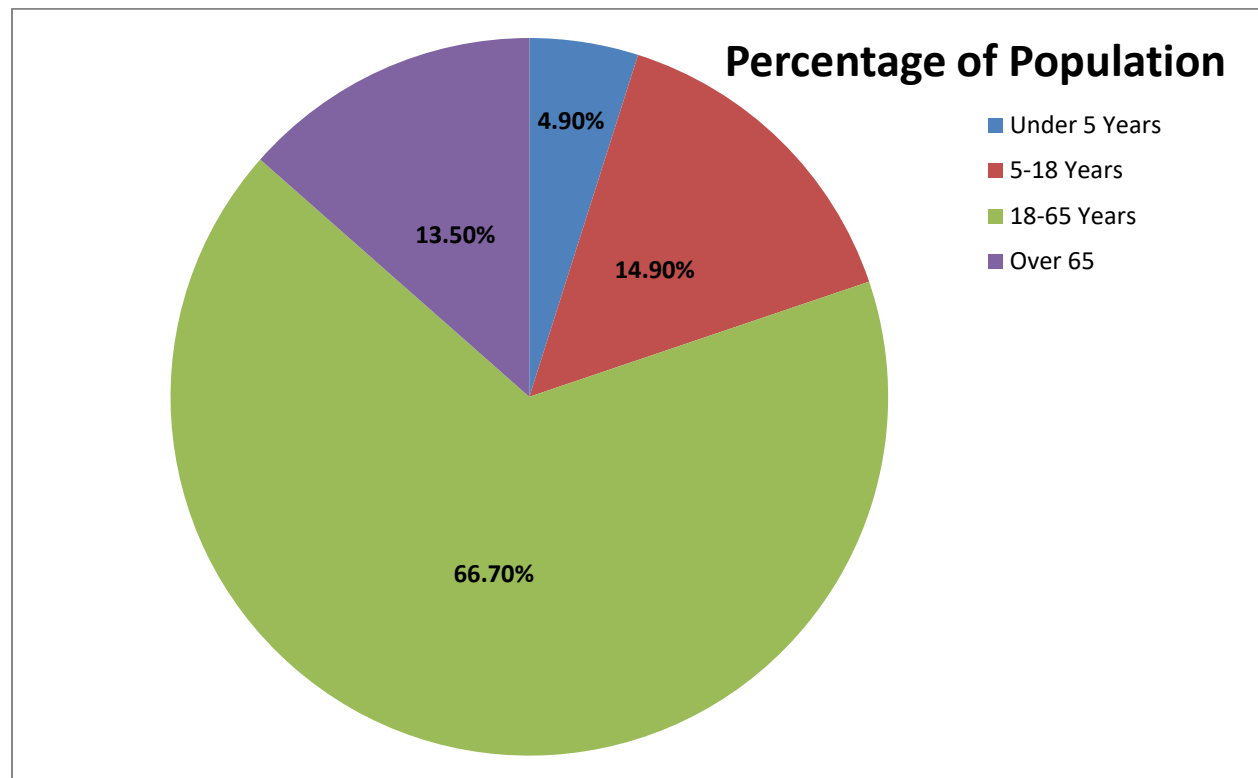
Source: U.S. Census Bureau

Year	Population Numbers
1880	14,505
1910	30,417
1940	42,707
1970	50,285
2000	51,965
2010	51,230
2017	51,834



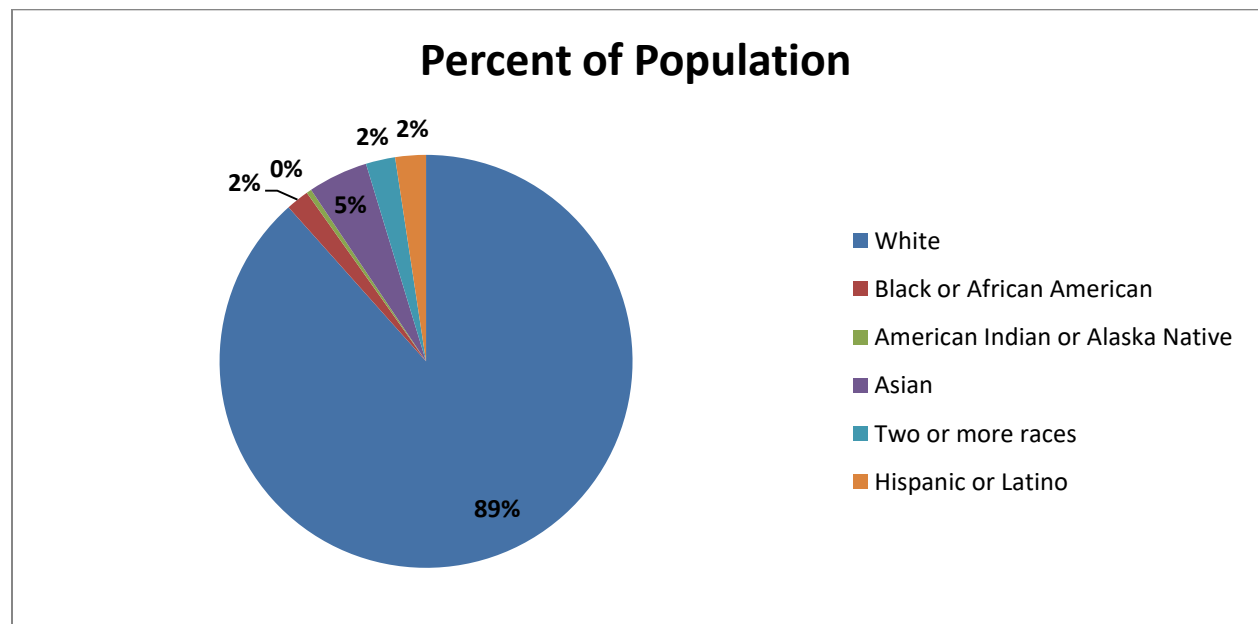
Source: U.S. Census Bureau

Age	Percentage of Population
Under 5 Years	4.90%
5-18 Years	14.90%
18-65 Years	66.70%
Over 65	13.50%



Source: U.S. Census Bureau

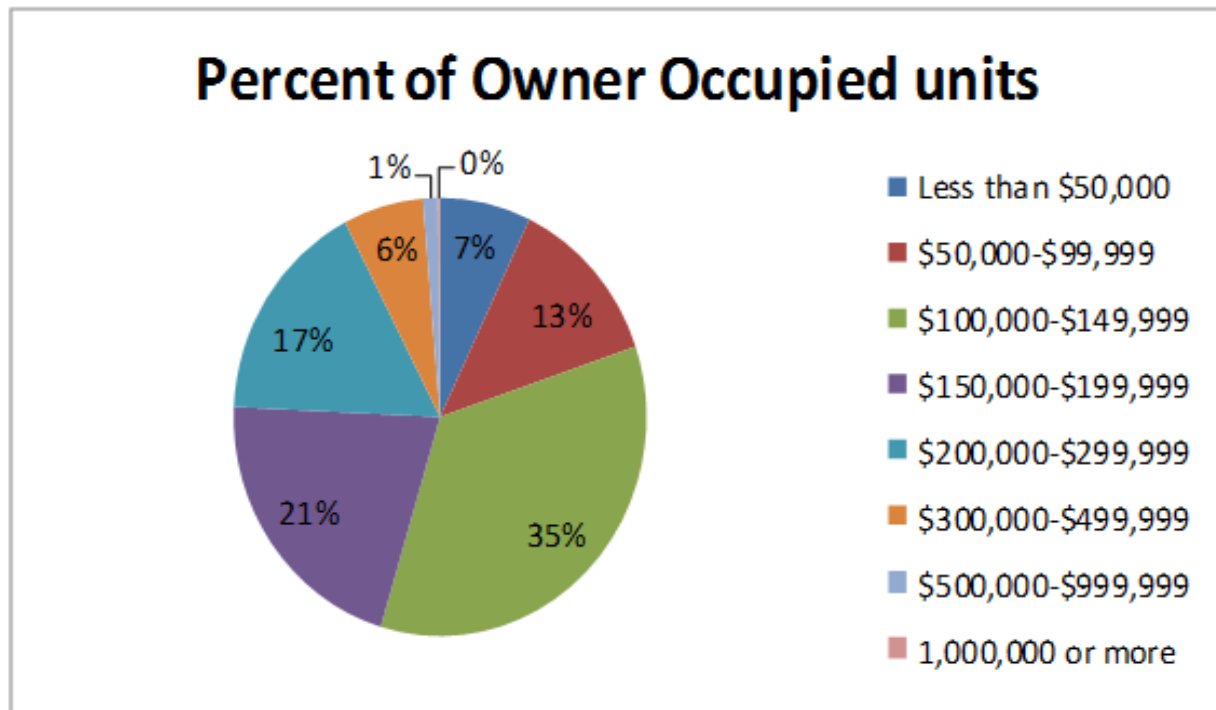
Race	Percentage
White	88.40%
Black or African American	1.80%
American Indian or Alaska Native	0.40%
Asian	4.70%
Two or more races	2.30%
Hispanic or Latino	2.40%



Source: U.S. Census Bureau

Housing	
Owner-occupied housing unit rate, 2013-2017	46.70%
Median value of owner-occupied housing units, 2013-2017	\$132,200
Households, 2013-2017	20,937
Persons per household, 2013-2017	2.25
Per capita income in past 12 months (in 2017 dollars), 2013-2017	\$23,385
Median household income (in 2017 dollars), 2013-2017	\$42,243
Persons in poverty, percent	25.20%
Land area in square miles, 2010	20.52
Population per square mile, 2010	2,501.50
Owner-occupied housing unit rate, 2013-2017	46.70%
Median value of owner-occupied housing units, 2013-2017	\$132,200
Median selected monthly owner costs -with a mortgage, 2013-2017	\$1,197
Median selected monthly owner costs -without a mortgage, 2013-2017	\$506
Median gross rent, 2013-2017	\$747

The U.S. Census Bureau was used to analyze La Crosse housing demographics:



Value	Number of Owner Occupied units	Percent of Owner-occupied units
Less than \$50,000	808	7.10%
\$50,000-\$99,999	1,438	12.70%
\$100,000-\$149,999	3,953	34.80%
\$150,000-\$199,999	2,393	21.10%
\$200,000-\$299,999	1,891	16.70%
\$300,000-\$499,999	712	6.30%
\$500,000-\$999,999	131	1.20%
1,000,000 or more	20	0.20%

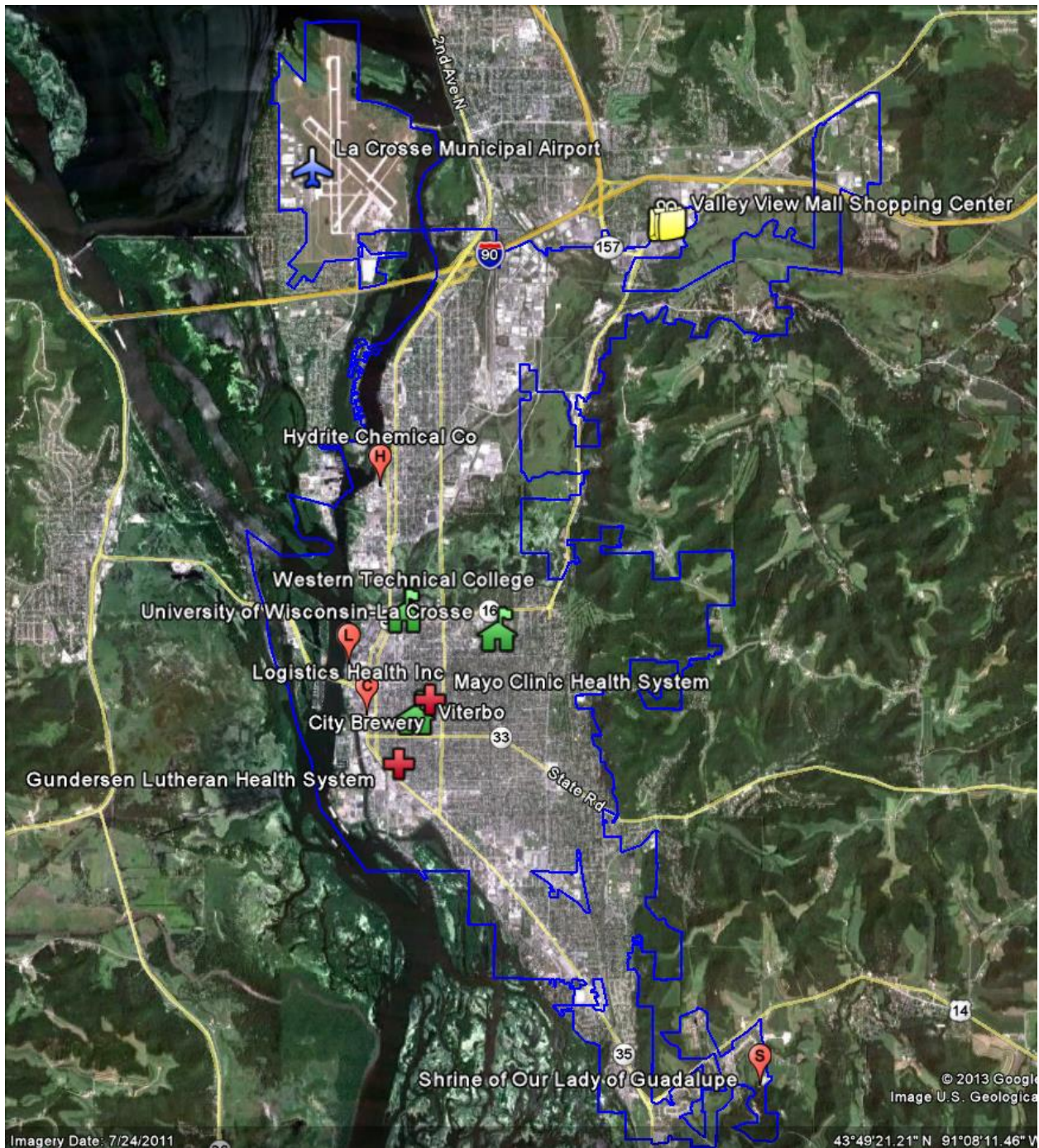
The U.S. Census Bureau was used to analyze La Crosse housing demographics:

Year Built	Number of Structures Built	Percent of Structures in La Crosse
2005 or Later	670	3.20%
2000-2004	1,085	5.10%
1990-1999	2,213	10.50%
1980-1989	2,089	9.90%
1970-1979	2,787	13.20%
1960-1969	2,199	10.40%
1950-1959	2,801	13.30%
1940-1949	1,752	8.30%
1939 or earlier	5,504	26.10%

The U.S. Census Bureau was used to analyze La Crosse work force demographics:

Occupation	Number of people Employed	Percent of people employed
Management, business, science, and arts	9,295	35.90%
Service	5,330	20.60%
Sales and office	6,142	23.70%
Natural resources, construction, and maintenance	1,702	6.60%
Production, transportation, and material moving	3,438	13.30%

Many businesses call La Crosse home, to include Gundersen Health System, Mayo Clinic Health System, Trane Company, CenturyLink, Logistics Health, Chart Industries, Kwik Trip, Hydrite Chemical, Valley View Mall, and City Brewery.



The following list defines the critical infrastructure assets in La Crosse:

Electricity & Nuclear - Xcel Energy, Dairyland Power Cooperative, Genoa Nuclear Power Plant near Genoa, WI (located only twelve miles to the south of La Crosse) and Prairie Island Nuclear Power Plant near Red Wing, MN are in the agency's radiological field team response district.

Gas/Oil – Northern Natural Gas Company submerged pipeline, 18-inch, 800-1200 psi, running across the riverbed of the Mississippi River, serving Midwest Natural Gas Co. and WE Energies.

Transportation Systems – Interstate I-90 and numerous State Highways are critical to transportation in the agency's response region. La Crosse railway traffic includes the Canadian Pacific Railway that operates 28 trains per day including two Amtrak passenger trains and the Burlington Northern-Santa Fe that operates 40 to 50 trains per day. A significant quantity of crude oil and other hazardous materials move through La Crosse every day. There are several major rivers in the agency's response region, to include the Mississippi River, the Black River, and the La Crosse River. La Crosse has 23-miles of shoreline and 1,350 acres of marshland. Barge traffic on the Mississippi River brings 4,594 barges annually, transporting 45,575 tons of petroleum and 966,115 tons of chemical fertilizers. The La Crosse Regional Airport transports 189,000 passengers annually.

Public Health – There are two major medical facilities in La Crosse, Gundersen Health System and Mayo Clinic Health System.

Chemical Facilities - Hydrite Chemical, located in La Crosse near the Black River, is one of the nation's largest independent providers of chemicals and services, shipping and storing more than 400 different chemicals. Hydrite Chemical has a bulk storage capacity of 2,027,500 gallons. La Crosse has 94 additional facilities that have a reportable amount of hazardous materials.

Institutions of Higher Learning - the University of Wisconsin La Crosse, Viterbo University, and Western Technical College have a combined student population of over 18,000.

City of La Crosse Water Utility - La Crosse utilizes a five million gallon reservoir to maintain water system pressure, and to store water for times of high demand such as fire protection. La Crosse utilizes 15 high pressure wells and maintains 220 miles of water mains.

La Crosse, like most cities its size, relies heavily on property tax collections as a primary source of revenue. La Crosse is severely limited in its opportunity to collect money through property tax revenue. Due to a large amount of tax exempt properties (hospitals, universities, churches, etc.); just over 40% of the properties in La Crosse are tax-exempt. La Crosse has an aging housing stock, with 26% of all properties built prior to 1939. With three universities in the city, La Crosse has a significantly large number of rental properties, equaling 49% of its total housing stock.

According to the latest United States Census Bureau's statistics, the median income of La Crosse workers is \$42,243, compared to the Wisconsin average of \$56,759 and the national average of \$57,652. Over 25% of all La Crosse citizens fall below the poverty level, as compared to the state average of 11% and the national average of 12%.

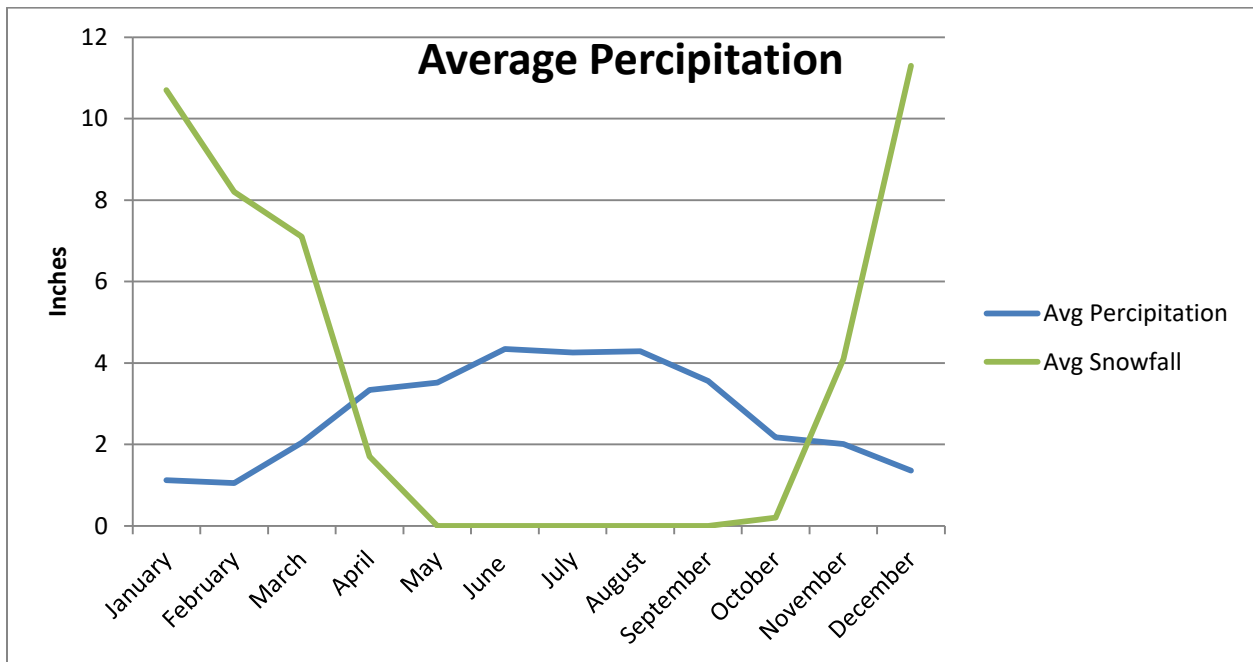
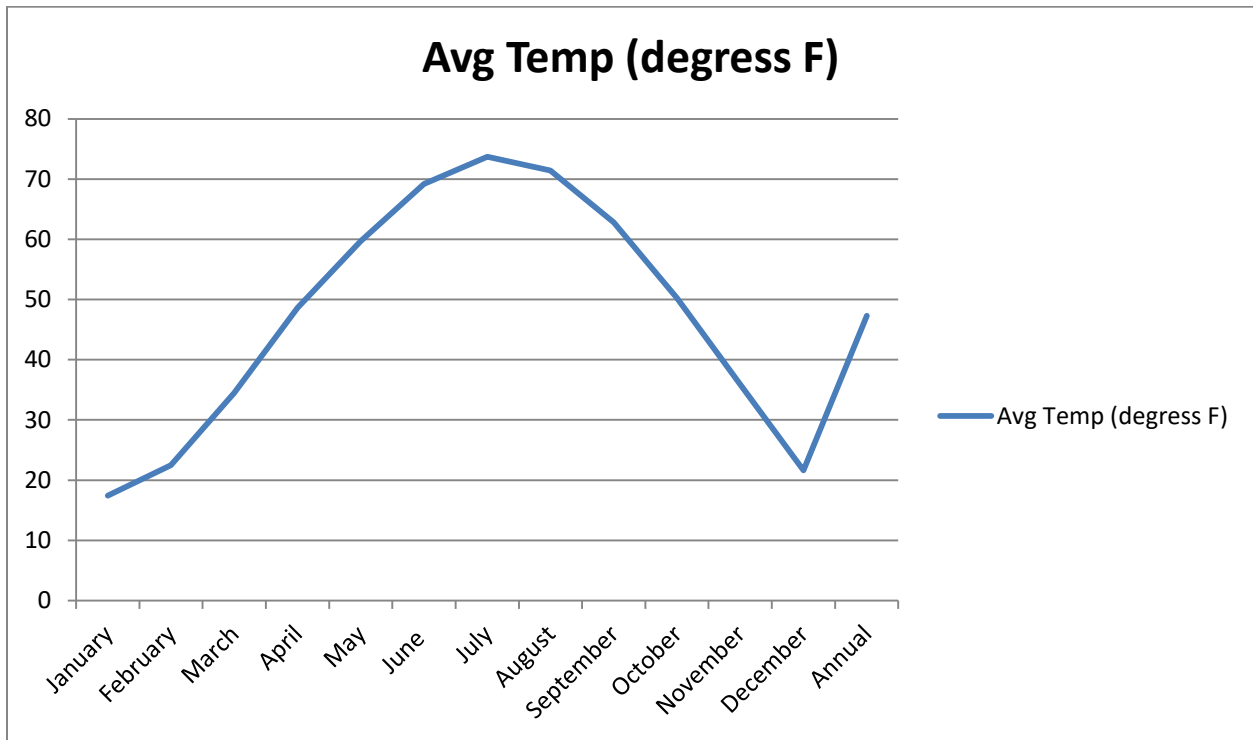
Weather and Climate:

La Crosse's weather and climate is known for its extreme heat in the summer and extreme cold in the winter. Winter snowfall leaves the potential for response times being delayed during the months of November through March because of inclement weather related road conditions.

According to the National Weather Service, La Crosse has historic tornado activity that is 75% greater than the national average. (The most recent devastating tornado was in May of 2011).

Source: National Weather Service

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
Avg. Temp. (degrees F)	17.4	22.5	34.5	48.6	59.7	69.2	73.7	71.4	62.8	50.2	35.9	21.6	47.3
Avg. Precipitation (inches)	1.12	1.05	2.04	3.34	3.52	4.34	4.26	4.29	3.56	2.17	2.01	1.36	33.1
Avg Snowfall (inches)	10.7	8.2	7.1	1.7	0	0	0	0	0	0.2	4.1	11.3	43.3



Governance Model of the Authority Having Jurisdiction

The City of La Crosse is governed by a Mayor and thirteen Common Council Members, who serve on staggered four year terms. The city is divided into thirteen aldermanic districts. The Mayor and Common Council Members are responsible for policy and decision making, monitoring the operations of the city, analyzing and approving budgets, and determining spending priorities. The Mayor serves full-time as the City's manager.

See Appendix A for a map of aldermanic districts.

Services Provided

Historical Formation and Development of the La Crosse Fire Department

An in depth review of the history of the La Crosse Fire Department reveals an organization which has been able to provide a consistent, high-quality service to a community that has undergone dramatic change over the past 160 years. As the community of La Crosse has changed, so has the level of services provided by the agency. The City of La Crosse has grown from a primarily manufacturing-based community, to a regional leader in the health care field while also supporting a broad array of private business and industry beyond the original occupational base..

The first volunteer fire company in La Crosse, the Pioneer Engine Company, was organized in 1857 after the first fire conflagration of significant magnitude occurred on March 7th of that year. After that fire, all of the buildings on Front Street, from State Street to Mt. Vernon Street, were left in charred ruins. The agency purchased a hand-pumped fire engine in 1858 and a steam engine in 1867.

The decade of the 1880's saw a great growth for the City of La Crosse. The population of the city had increased from 14,505 in 1881 to over 25,000 by the end of the decade. In 1889 a fire alarm system was installed to keep up with La Crosse's rapid expansion. In 1890 a new water main system with a reservoir was installed to provide a reliable water system for the agency.

The agency remained a strictly volunteer agency until October 5, 1895, when a full-time career agency was established. The new full-time agency was divided into five stations with forty-five personnel. They utilized two Silsby steam engines, five hose wagons and hose carts, and three hook and ladder trucks. The agency responded to 232 emergency calls in 1896. La Crosse was also very fortunate in having an excellent water supply to support firefighting capabilities, with thirty-six miles of water main, 335 hydrants, and a water storage capacity of 20,000,000 gallons.

The horse-drawn pumper era, which started in 1874, began to come to an end with the transition to motorized apparatus in 1915. In 1925, the city allocated \$1,300 to the agency for a rebuilt Pierce-Arrow combination chemical and hose motor cart. La Crosse grew and expanded in the 1940's and 1950's, forcing the agency to grow as well.

In 1957, a total of 93 authorized firefighters worked out of five fire stations, and the agency responded to 729 emergency calls. In 1968, a total of 102 authorized firefighters responded from four fire stations to a total of 882 calls, and of which 30 calls were medical in nature. In comparison, in 2017 the agency responded with a total of 92 personnel to a total of 6,446 calls, and of which 4,622 were medical calls.

In 1983, the 911 La Crosse County Emergency Dispatch Center (EDC) opened to serve La Crosse County. Between 1967 and 1983, all fire dispatching for the City of La Crosse was conducted by firefighters from Fire Station 1 at 5th and Market Streets. La Crosse County 911 EDC is still operating today, but as a separately staffed agency working out of the La Crosse County Law Enforcement Center.

In 1993, the agency trained personnel to the EMT-D (Emergency Medical Technician Defibrillation) level to answer a growing need to provide quality Emergency Medical Services. In 1997, the agency was reorganized from an engine/truck based system to a Quint based system, with light rescue apparatus added to respond to a growing volume of Emergency Medical Services response.

In the early 1990's the agency recognized the need to provide specialized emergency services in the fields of hazardous material, technical rescue, and water rescue. La Crosse is built within a rugged topography of bluff land, with three major rivers (Mississippi, La Crosse, and Black), and

major transportation hubs (Mississippi River, Interstate 90, and Burlington Northern – Santa Fe railway) forcing the need for these three specialty technical rescue teams. Over the years, these specialty teams have evolved into partnerships with the State of Wisconsin regional teams providing statewide coverage for Urban Search and Rescue and Hazardous Materials response.

The agency has provided fire and building inspection training to its members, and provides life safety building inspections for all residential properties over two units, and all commercial properties located within the City. The agency “Inspection/Public Education Bureau” has evolved over the years to become a true Community Risk Management Division. This Division of the agency now provides services in code enforcement, fire investigations, fire sprinkler and alarm testing, building plan reviews, underground and above ground tank inspections, fireworks and pyrotechnics inspections, juvenile fire setters program, pre-planning, City safety training coordination, and fire safety public education.

During the fall of each year and for the past 35 years, the agency supports a Fire Prevention Week in which firefighters visit nineteen area schools. This program reaches more than 3,600 children annually from preschool to fifth grade. During these school visits and at other public events throughout the year, members have used the agency’s Fire Safety House to educate children and adults on how to safely escape a house fire. In 2013, the agency added a Kitchen Fire Demo Trailer to demonstrate grease fire safety. This has reached an additional 1,000 people or more annually at public events.

In 2014, the agency absorbed the City of La Crosse Building Inspection Department into its operational structure. The Building Inspection Department was renamed “Fire Prevention and Building Safety” (FPBS), and became a combined division within the structure of the Fire Department. These 11 civilian building inspection employees and the city’s Safety Coordinator are now working under the direction of the Assistant Chief of FPBS. In 2019, the division will be appropriately renamed the Community Risk Management Division, to more accurately reflect the nature of the Division’s and the Fire Department’s total mission

In recent years, the agency’s Maintenance Division has maintained buildings and grounds for four fire stations, seventeen fire apparatus, eight Fire Operations support vehicles, eleven Fire

Prevention and Building Safety vehicles and all fire tools and equipment. The Maintenance Division conducts annual certification testing for all agency ladders, hose, pumps, self-contained breathing apparatus, and other equipment.

The agency has seen considerable change over its lifespan and that change continues today and expectedly into the future. The agency has evolved from the early years of bucket brigades and horse drawn steam engines, to our current deployment model of specialized apparatus and properly trained “all-hazards response” firefighters. With the more recent addition of the City’s Building Inspection program and employees, the agency continues to take even more of a lead in all aspects of safety to the citizens and the visitors of the City of La Crosse.

Special Response Capabilities

- The La Crosse Fire Department has a fully equipped Hazardous Materials Response Team trained to the Operations and Technician levels. This team is a “Type II” regional member of the State of Wisconsin Hazardous Materials Response Network.
- The La Crosse Fire Department has a fully equipped radiological field response team. This team is a regional member of the State of Wisconsin Radiological Response Network.
- The La Crosse Fire Department has a fully equipped Urban Search and Rescue (USAR) response team. This team includes members that are also part of the State of Wisconsin USAR (WI-Task Force 1).
- The La Crosse Fire Department has a fully equipped Water and Ice Rescue response team that provides the community with rescue and recovery capabilities. These capabilities include underwater dive rescue and recovery, open/moving water and ice rescue, and all water and boating related emergencies. The agency operates two boats, as well as several other water access tools which address harder to reach rescue situations.
- All agency Engine, Quint, and Rescue apparatus are equipped with hydraulic extrication and technical rescue equipment.

- Engines, quints, and rescue apparatus are equipped with first responder medical supplies, including defibrillators.
- In 2018 the La Crosse Fire Department began a partnership with Gundersen Health System, which will move the agency towards the ability to staff firefighter/paramedics on fire apparatus throughout the City. While currently very early in the planning phase, this developing program will address agency identified recruitment and retention issues, and better position the Fire Department to eventually provide advanced life support services as part of its emergency medical services mission.

Legal Establishment

The La Crosse Fire Department was legally established on October 5, 1895 by City Ordinance 249. The ability to enforce local and state fire codes is outlined in Municipal Code, Chapter III, Section 3.13. The Board of Police and Fire Commission is authorized by Wisconsin Statute 62.13.

Fire Stations

The agency currently operates out of four fire stations. The agency's Administration, Fire Inspectors, Training Division, and maintenance personnel operate out of Fire Station 1 in the downtown district. The Building Inspectors operate out of the La Crosse City Hall.

See Appendix B for a fire station location map.

See Appendix C for a response zone map for the four fire stations.

Current Station Locations



Station 1 at 726 5th Avenue South – built in 1967 (Downtown District)



Station 2 at 626 Monitor Street – built in 1957 (North District)

Current Station Locations

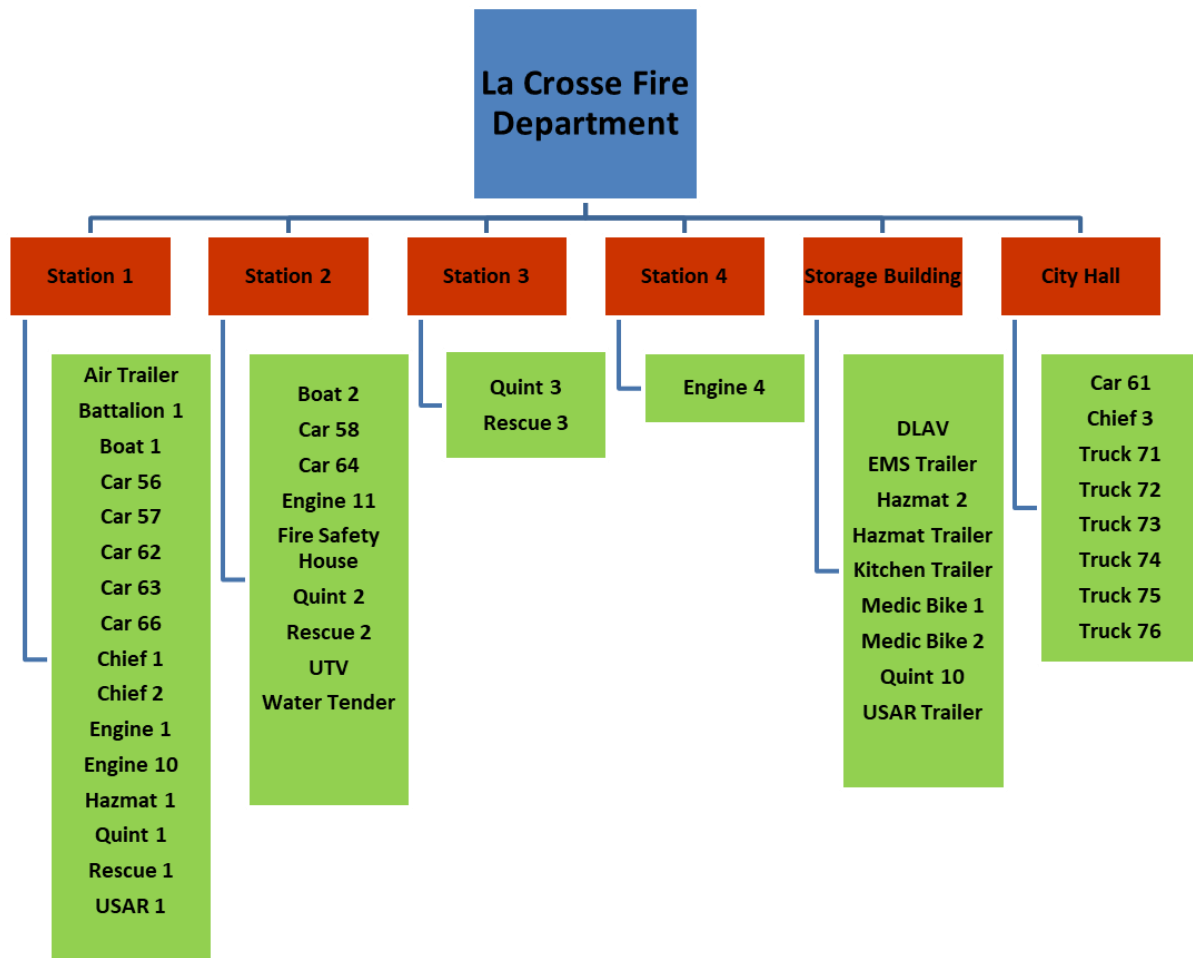


Station 3 at 1710 Losey Blvd. S. – built in 1967 (South District)



Station 4 at 906 Gillette Street – built in 1941 (North District)

La Crosse Fire Department Apparatus

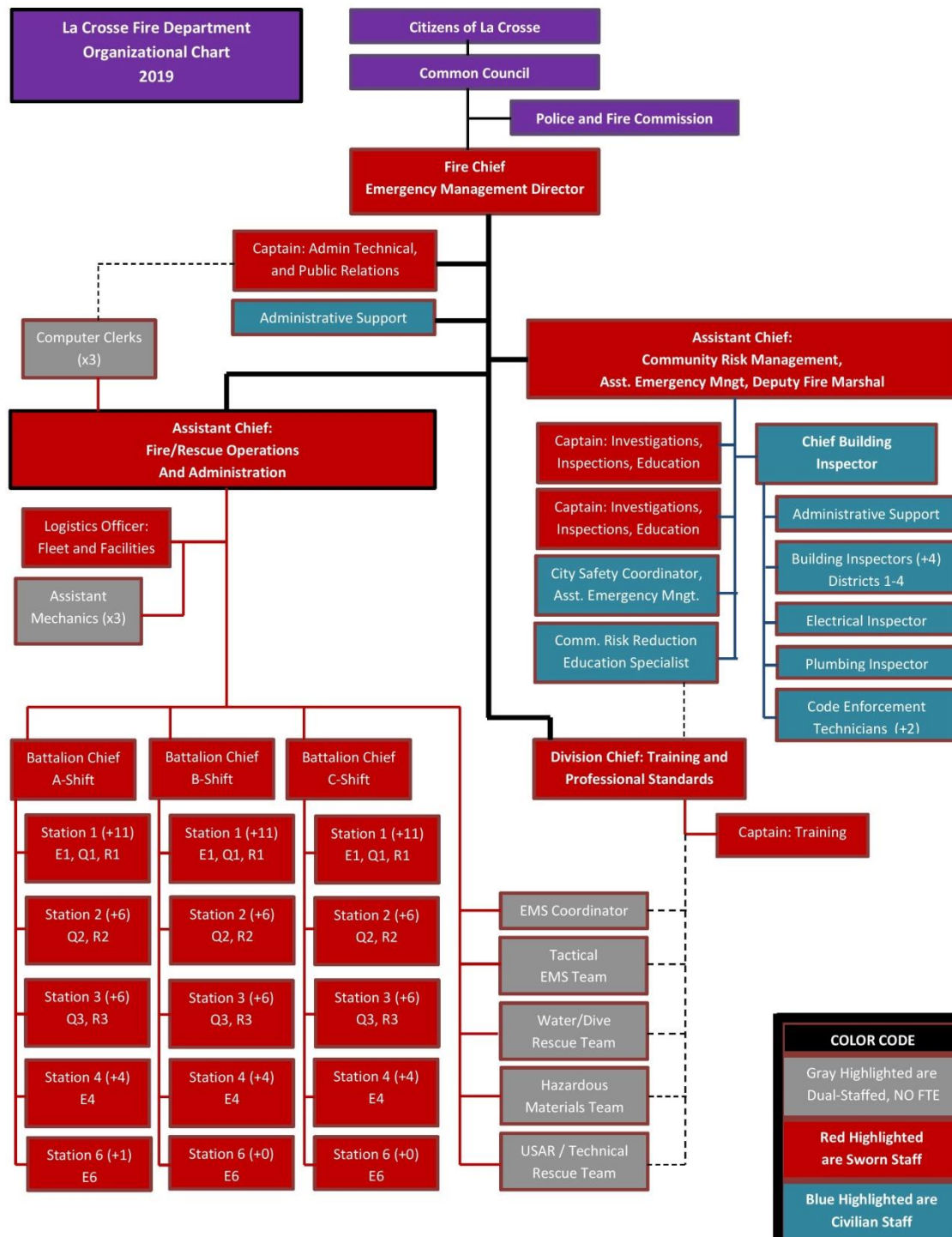


La Crosse Fire Department Staffing

The agency's Operations Division operates a three-platoon system, with a daily minimum staffing level of twenty-four personnel per shift. There are a total of 92 uniformed personnel, consisting of one Fire Chief, two Assistant Chiefs, one Division Chief of Training, three Battalion Chiefs, one Facilities Maintenance Specialist, 16 Captains, 10 Lieutenants, 27 Engineers, and 31 Firefighters. The Fire Prevention Building Safety division includes 6 Building Inspectors, 2 Code Enforcement Technicians, and 1 City Safety Coordinator. There are 2 Administrative Support Staff personnel, and one Medical Director on contract.



La Crosse Fire Department Table of Organization



Agency Overview

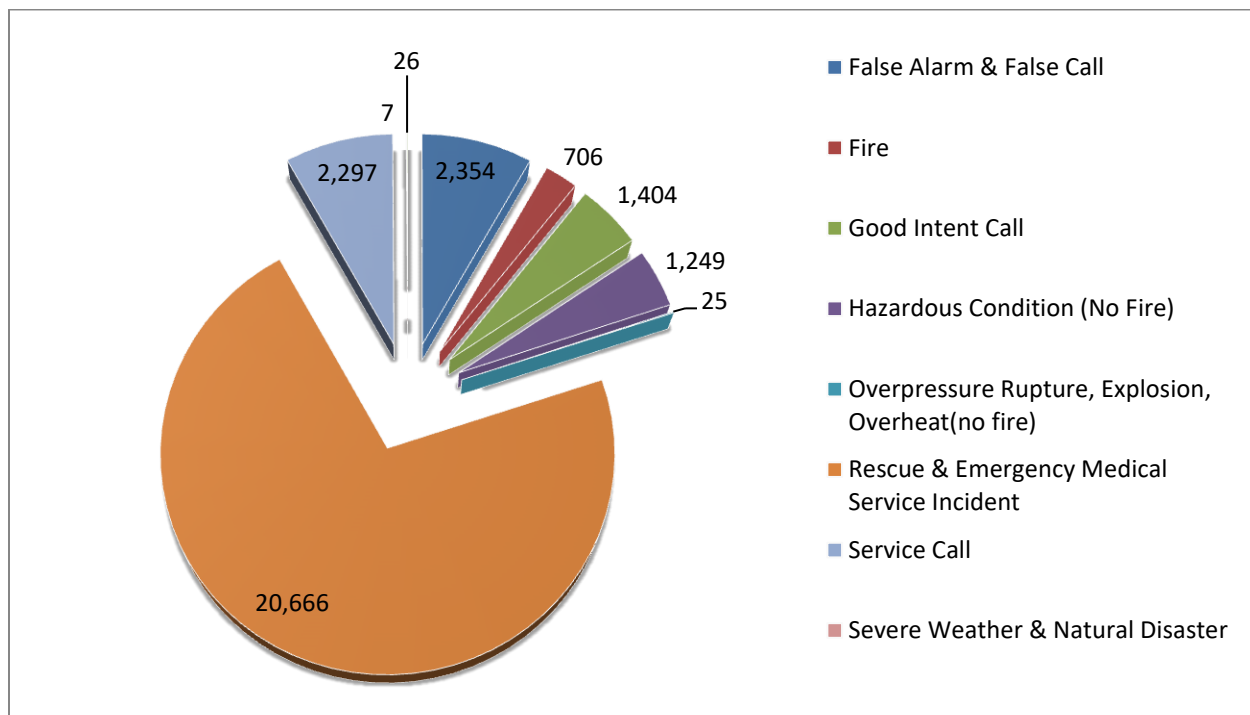
The agency operates nine front-line apparatus out of its four fire stations (Battalion Car, Engine 1, Quint 1, Rescue 1, Quint 2, Rescue 2, Quint 3, Rescue 3, and Engine 4). The agency has two reserve engines (Engine 10 and Engine 11) and a reserve quint (Quint 10). The agency has one Water Tender in front-line dual-staffed reserve status. The agency provides specialized services for hazardous materials, water rescue, high-angle rescue, confined space rescue, trench rescue, structural collapse, and vehicle extrication. The agency is a “Type II” Regional Hazardous Materials Team for the State of Wisconsin, serving a region of nine counties. The agency is also a member of the Wisconsin Task Force Urban Search and Rescue Team (WI-Task Force 1), specializing in the confined space, rope rescue, trench rescue, and structural collapse. The agency provides technical rope rescue capability to a significant risk area on our bluffs, and does a significant quantity of water rescue work due to our area rivers and marshes. The agency protects 23 miles of river shoreline, 1,350 acres of marsh grass, and 265 miles of biking trails.

The agency has an approximate annual Fire Operation Division operating budget (2017) of \$10,031,570 and responds to approximately 18 calls per day; for an overall average of approximately 6,500 calls per year. Incident response data is detailed below.

Year	Total Responses	Average Responses Per Day
2013	5,025	13.76
2014	5,415	14.84
2015	5,730	15.70
2016	5,999	16.44
2017	6,446	17.66

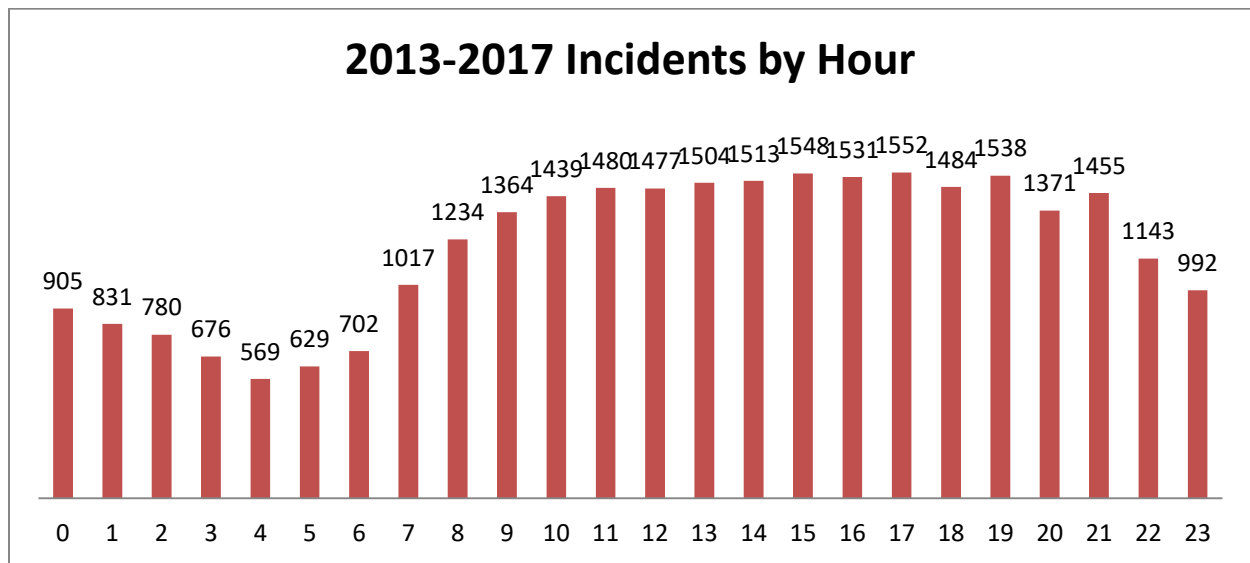
2013 through 2017 agency response types are shown below:

NFIRS Description 1	Incidents
Total	28,743
False Alarm & False Call	2,354
Fire	706
Good Intent Call	1,404
Hazardous Condition (No Fire)	1,249
Overpressure Rupture, Explosion, Overheat(no fire)	25
Rescue & Emergency Medical Service Incident	20,666
Service Call	2,297
Severe Weather & Natural Disaster	7
Special Incident Type	26



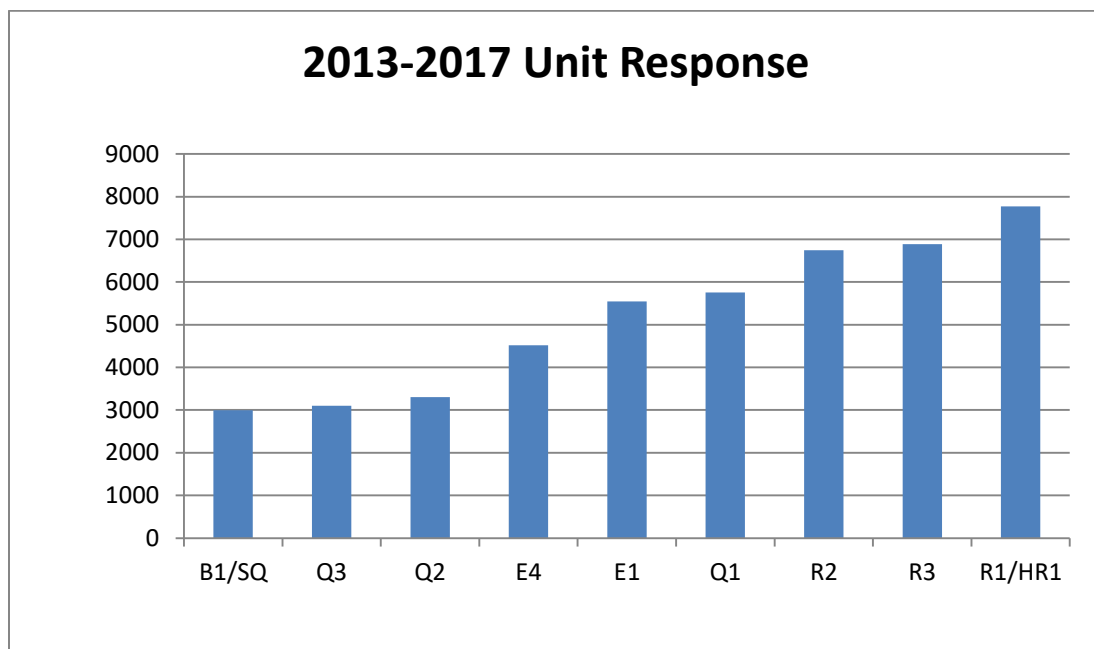
2013 through 2017 agency incident time of day analysis is shown below:

Hour	Incidents
23	992
22	1,143
21	1,455
20	1,371
19	1,538
18	1,484
17	1,552
16	1,531
15	1,548
14	1,513
13	1,504
12	1,477
11	1,408
10	1,439
9	1,364
8	1,234
7	1,017
6	702
5	629
4	569
3	676
2	780
1	831
0	905



2013 through 2017 agency response by apparatus is shown below:

Unit	Responses
SQ(Renamed B1)	2,996
Q3	3,103
Q2	3,302
E4	4,520
E1	5,544
Q1	5,757
R2	6,743
R3	6,887
HR1 (Renamed R1)	7,768
	49,509



The Future

The geography of La Crosse has not allowed for recent expansion, and will most likely limit future growth and expansion in a traditional sense. The Mississippi River borders La Crosse to the west, steep bluff land to the east, the City of Onalaska to the north, and the Town of Shelby to the south. In recent years the City has seen a dramatic increase in vertical growth. Multiple apartment complexes have been constructed and the increase in “Downtown Living” has led to an increase of almost 23% more people living downtown than the previous decade.

Requests for emergency services have steadily increased, with no end to this trend in site. A look at call volume by decade shows this steady increase; 1960 – 849 calls, 1970 – 932 calls, 1980 - 1,527 calls, 1990 – 2,747 calls, 2000 – 3,404 calls, 2010 – 4,828 calls, 2017 – 6,452. While we cannot predict the future, the call volume trend over the past fifty years, and especially the past decade, is exponentially trending upward. In consideration of the vertical development downtown, the city boundary agreement plans in the works, and an aging “baby boomer” population putting more demands on emergency services, we can expect to see more demands for service in the coming five years of this plan and beyond.

While city growth appears slow due to the natural east and west boundaries, a review of emergency responses and response times to outlying areas near the La Crosse Municipal Airport, Valley View Mall, the Highway 16 corridor, the County Road B corridor, and the Highway 14/61 corridor to the south, show a clear need for future fire station expansion or relocation. These areas of La Crosse are seeing growth and new development which has driven an increase in demand for agency services to those areas. In early 2017, the Mayor created a Fire Station Task Force to assess several years of data collection on the City’s fire station needs. The committee comprised of citizens and council members finalized their report near the end of 2017. This report provided City Council recommendations that included adding a fifth station on the far south side, along with recommendations for replacement or remodeling of the current four fire stations in the future. (see exhibit)

At the writing of this document, the agency has resolved an immediate crisis and is providing temporary all-hazards emergency response and community risk management services to our

neighboring Town of Medary. The Town of Medary is located adjacent to the City of La Crosse to the northeast. The township reached out the agency at the end of 2017 to provide service due to an impasse in contract negotiations with their previous service provider, and a temporary protection agreement was approved through the end of 2018.

The agency will continue its mission to protect lives and property through sound resource management and utilization of innovative strategies designed to provide cost-effective emergency services protection and community risk reduction efforts. The City of La Crosse will continue to support the Fire Department's mission by providing adequate funding for staffing, training, equipment, and facilities in line with the Common Council's strategic priorities

The agency's future performance goals and objectives will be formally documented in the La Crosse Fire Department's 2019 to 2023 Strategic Plan.

Community Expectations and Performance Goals

The following is the La Crosse Fire Department mission statement*:

“The La Crosse Fire Department serves all who live in and visit the City of La Crosse through excellence in fire protection, safety, emergency medical services, rescue and educational services at the highest professional standard in a compassionate, ethical, and cost effective manner.”

*The strategic planning committee will be developing a new agency mission statement with new goals and objectives.

This comprehensive Standards of Cover and deployment plan addresses the following community questions:

- What is the nature of the environment in which the agency delivers service?
- What level of risk exists within the community (life and property)?
- How will the community evolve in the future?
- What level of service is expected of the agency?
- What resources (facilities, apparatus, and personnel) are needed to safely and effectively deliver the desired level of service?
- How should resources be deployed to assure the expected level of service is achieved?
- How will resources need to change in the future in order to maintain the expected level of service?

Community Stake Holders Input

In early 2018, to help better identify community service needs, expectations, and strengths and weaknesses, the La Crosse Fire Department will be conducting external listening sessions with community leaders from many different viewpoints in the City. The results of these community listening sessions, as well as an internal committee focus group, will be the driving force behind many of the performance goals listed in the 2019 to 2023 strategic plan. During the first months of the transition of the agency's new Fire Chief, the agency has been working from dynamic goals and objectives list to track new projects and some reprioritization of efforts. The culmination of this work will be formally implemented in a community based five-year strategic plan in January of 2019.

See the La Crosse Fire Department 2019 to 2023 strategic plan for all performance goals and objectives.

ISO Rating

The agency was re-evaluated by the Insurance Service Office (ISO) in 2017, and maintained its Class II fire service rating status, which the agency first attained in the mid 1970's. The agency is proud to be one of 42 fire departments, out of approximately 864 fire departments, in Wisconsin that have received a Class II rating.

Performance Goals and the Cascade of Events

In every emergency there is a sequence of events that are critical elements in respect to time and evaluation of the response system, known as the cascade of events and it occurs on every emergency call. Part of the risk assessment includes the evaluation of the agency's ability to respond to emergencies.

Emergency Operations Cascade of Response Elements from State of Normalcy

Pre- Response Elements

- Event Initiation
- Emergency Event
- Alarm
- Notification

Response Time

- Alarm Processing
- Turnout Time
- Travel Time
- On Scene Time

Post Response Elements

- Initiation Action and Termination of Incident

Time Points and Time Intervals:

Event Initiation - the point at which factors occur that may ultimately result in activation of the emergency response system. Precipitating factors can occur seconds, minutes, hours, or even days before the point of awareness is reached. An example is the patient who ignores chest discomfort for days until it reaches a critical point at which time he/she makes the decision (Point of Awareness) to seek assistance. Rarely is it possible to quantify the point at which event initiation occurs.

Emergency Event - the point at which an awareness of conditions exists that requires an activation of the emergency response system. Considered the Point of Awareness, it may be the recognition by an individual that assistance is needed, or it may consist of a mechanical or electronic recognition of an event such as smoke or heat detector activation.

Alarm - the point at which emergency response system activation is initiated. The transmittal of a local or central alarm to public safety answering point is an example of this time point. Again, it is difficult to determine with any degree of reliability the time interval during which this process occurs.

Notification - the time point at which an alarm is received and acknowledged at a communications center. This transmittal may take the form of electronic or mechanical notification to the point at which a call is received and answered in the public safety answering point.

Alarm Processing - the time interval from when the alarm is acknowledged at the communications center until response information begins to be transmitted via voice or electronic means to emergency response facilities (ERF's) and Emergency Response Units (ERU's.) The benchmark for this element of response time is 60 seconds for 90 % of events.

Turnout Time - the time interval that begins when the Emergency Response Facilities (ERF's) and Emergency Response Units (ERU's) notification process begins by either an audible or visual annunciation or both and ends at the beginning point of time travel. For staffed fire stations the

benchmark is 80 seconds for fire and special operations response and 60 seconds for EMS response, for 90 % of events.

Travel Time - time interval that begins when a unit is en route to the emergency and ends when the unit arrives at the scene. This can generally be interpreted as from wheels rolling to wheels stopped. When conducting simulated analysis, travel time is based on 35 mph average or 53.1 feet/second. The benchmark for travel time is 240 seconds or less travel time for the arrival of the first engine company at a fire suppression incident and 240 seconds or less travel time for the arrival of a unit with first responder with automatic defibrillator (AED) or higher capability at an emergency medical incident. The benchmark performance objective is 90 % for achievement of travel time objectives.

On - Scene Time - time point at which the responding unit arrives on the scene.

Initiation Action - the time interval from when a unit arrives on the scene to the initiation of emergency mitigation. May include size-up, resource deployment, etc.

Termination of Incident - time point at which unit(s) have completed the assignments and are available to respond to another assignment or emergency request.

Total Response Time – the time interval from the receipt of the alarm at the primary PSAP to when the first emergency response unit is initiating action or intervening to control the incident.

State of Normalcy

If a state of normalcy exists there is no need to call emergency services to the scene. However, once an event initiation begins and the cascade of events begins to unfold the degree of loss of life and property that can be prevented may be impacted by the passage of time.

For the accreditation process, total response time is a compilation of the elements beginning with notification up to on-scene time. It has three elements: alarm processing time, turnout time, and travel time.

Community Benchmarks/Baselines - Therefore, for the purposes of definition and the need to establish a common baseline for purposes of evaluating total response time accreditation criteria;

Total Response Time is:

Alarm Processing = 60 second/90 % baseline and benchmark

Turnout Time = for fire response, rescue response, hazardous conditions response, and emergency report out response is 80 seconds/90 % baseline and benchmark; and **EMS response** is 60 seconds/90 % baseline and benchmark

Travel time = based on criteria for the different risk categories and within guidelines provided for service area and/or population density (see table below)

For the City of La Crosse – using the urban travel time benchmark/baseline (see below), a first unit 4 minute/90% benchmark, and 5 minute 12 second/90% baseline

Total response time = Alarm processing + Turnout time + Travel time

Urban Benchmark/Baseline (CFAI)				
Definition:				
Urban - An incorporated or unincorporated area with a population of over 30,000 people and/or a population density over 2,000 people per sq. mile.				
The times below relate to travel times only:				
	1 st Unit	2 nd Unit	Balance of 1 st alarm	Performance
Benchmark	4 minutes	8 minutes	8 minutes	90%
Baseline	5 minutes/12 seconds	10 minutes/24 seconds	10 minutes/24 seconds	90%

The criteria listed in the above table provide a target benchmark by CFAI and the lesser baseline of 70% of the benchmark time.

Performance Objective Measurement With a total response time equaling the alarm processing + turnout time + travel time, the agency has a goal of a total response time under 6 minutes on emergency medical responses; and under 6 minutes and 20 seconds for all other emergency responses; 90% of the time. The following tables show agency performance on emergency fire responses, EMS responses, emergency rescue responses, emergency hazardous condition responses, and emergency report out responses agency wide from 1-1-2013 to 12-31-2017.

January 1, 2013 to December 31, 2017

Baseline Time Elements– 1st Due Unit/Pumper to be measured against the 90th Percentile				
NFIRS Descriptions	Dispatch Time ≤60 sec	Turnout Time ≤80sec	Travel Time 1st Unit ≤ 5:12	Travel Time 1st Unit ≤ 4:00
Fire (NFIR 100)	71.98%	52.91%	94.16%	86.57%
Rescue (NFIR 300 Excluding EMS)	64.46%	64.11%	93.19%	85.88%
Hazardous Conditions (NFIR 400)	48.62%	56.07%	90.78%	82.94%
Report Out (NFIR 500, 600)	48.54%	64.48%	94.05%	86.52%

Baseline Time Elements– 1st Due EMS Unit to be measured against the 90th Percentile				
NFIRS Descriptions	Dispatch Time ≤60 sec	Turnout Time ≤60sec	Travel Time 1st Unit ≤ 5:12	Travel Time 1st Unit ≤ 4:00
EMS (NFIR 300 excluding rescue)	69.68%	55.35%	94.13%	85.17%

The following table shows agency performance on emergency fire responses, EMS responses, emergency rescue responses, emergency hazardous condition responses, and emergency report out responses agency wide from January 1, 2013 to December 31, 2017. Data includes the total response times for the second arriving unit, and the balance of the remaining units. Target benchmark times are established by CFAI and the lesser baselines times are 70% of the benchmark time.

January 1, 2013 to December 31, 2017

Performance Objective				
	Baseline	Benchmark	Baseline	Benchmark
	2nd Unit ≤13:43	2nd Unit ≤10:20	Balance of Remaining Units ≤13:43	Balance of Remaining Units ≤10:20
Fire	99.24%	96.71%	97.52%	93.94%
EMS	96.33%	92.02%	98.22%	97.21%
Rescue	98.99%	94.95%	92.35%	91.17%
Hazardous	97.95%	92.10%	96.63%	87.67%
Report Out	99.66%	98.00%	98.82%	93.16%
Response Times measured against 90th Percentile				

Community Risk Assessment

One of the issues the fire service has historically faced is how to define the levels of service for the community it serves. As part of the Commission on Fire Accreditation International (CFAI) process, a Standards of Cover (SOC) document has to be developed and adopted by the agency having jurisdiction. The La Crosse Fire Department proceeded to establish its service level goals based on the CFAI accreditation model. Specific resource needs were based upon the concept of meeting established service level goals for the types of emergencies routinely responded to in the City of La Crosse.

The agency must assess community risks based upon the potential frequency (probability of an incident occurring) and consequence (potential damage should an event occur). For example, a terrorist act has a low probability; however, if a terrorist act occurs, the damage and the psychological impact are potentially very high. This same outlook regarding risk assessment can also be applied to natural disasters. For example, an earthquake generally does not hit the same communities every year; but, if it does strike, the damage can be great. Conversely, medical emergencies happen every day. The overall potential damage from medical emergencies to the community as a whole is not nearly as significant as that from an earthquake or other natural disaster (though these individual incidents greatly affect those requiring the service). To design future deployment strategies, the agency must be able to compare the potential frequency and potential damage of events that may affect the community and service area.

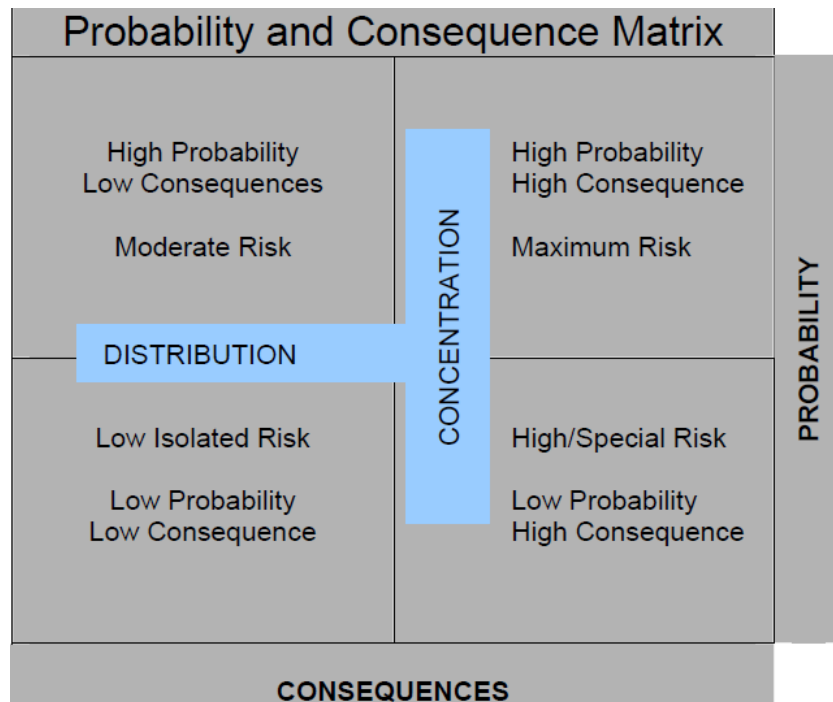
Community Risk Management

Risk management is the analysis of the chance of an event occurring and the resulting damage that could occur as a result of the event.

Probability Matrix	
High Probability Low Consequence	High Probability High Consequence
Low Probability Low Consequence	Low Probability High Consequence

For example: structure fires are relatively infrequent in comparison to medical incidents in La Crosse; however, the loss of subsequent dollars, loss of irreplaceable items, and loss of business or jobs make the consequences of such fires high; activation of automatic fire alarms is high probability with low consequence; earthquakes or a large hazmat incident may be infrequent but represent a large potential loss to life and property. Comparatively, a dumpster fire may be a high probability but have little consequence outside of the fire response. With an understanding of the different levels of probability and consequences, proper strategic planning in respect to risk management, and resource deployment can take place.

The evaluation of fire risks must take into account the frequency and severity of fires and other significant incidents. Risk assessment can be divided into four quadrants, which impose different requirements for commitment of resources in each area.



The relationships between probability and consequence and the community's adopted service level goals determine the needed concentration and distribution of resources. Distribution is the number of resources placed throughout the city. Concentration is the number of resources needed in a given area within the city. This varies depending on many factors including the number of events (calls) for service; the risk factors of the area; the availability, reliability, and time of arrival of secondary responding units; etc. A challenge will be to find the proper balance for the distribution and concentration of resources needed to meet the service level goals today and in the future.

Community Risk Assessment and Evaluations

For the most part it is the potential types of risks, their associated consequences, and the expected outcomes of fire and other emergency service occurrences within a community that become the determining factors when establishing an overall risk assessment strategy. Without knowing this information, we cannot plan effectively. Once the above issues have been determined, those factors in turn become highly dependent upon other components such as efficient geographical positioning of fire stations, effective equipment, and staffing levels to support the various needs.

Planning Zone Risk Assessment and Response Analysis:

The agency divided the city into forty seven planning zones. These zones are approximately one mile by one mile. NFIRS 5ALIVE software was originally used in creating risk assessment scores, occupancy analysis, and fire flow analysis. Vinelight software was used for emergency call history and response time analysis in the planning zones. A detailed risk assessment and response analysis was conducted for each of the city's forty seven planning zones. The agency now relies on Metrics and the City IT department utilizes Arcview GIS to analyze our planning zones.

See Appendix D and J for the forty seven planning zones and subsequent data.

Fire Flow Analysis

As part of the risk assessment process the agency conducted a fire flow analysis of inspected buildings in the City of La Crosse. The information was entered and filtered from the agency's Zoll Fire Records Management System (RMS).

See Appendix D and J for the forty seven planning zones, which includes fire flow data.

See Appendix E for the La Crosse Fire Department Fire Flow Analysis Report.

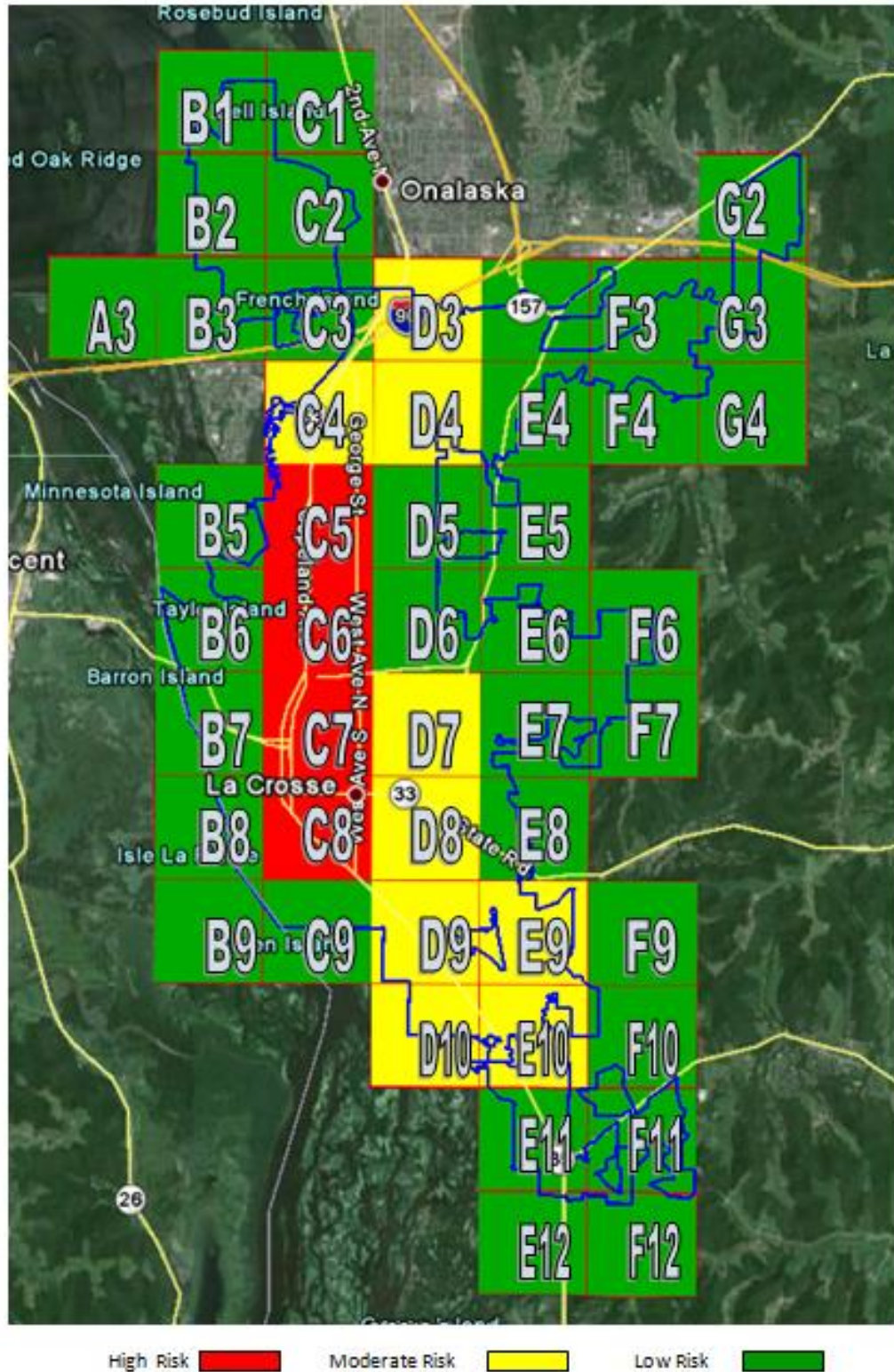
Structure Fire Risk Assessment Process

The agency originally began its risk assessment evaluation of the city in 2010. The agency has semi-annually conducted approximately 3,000 occupancy inspections. These buildings include all commercial properties and all three unit or larger residential properties. The agency's fire inspection officers gather risk assessment data while conducting building inspections on an ongoing basis and enter this data into the agency's Zoll Fire Records Management System (RMS).

See Appendix F for an explanation of the agency's risk assessment process and the results of the risk assessment.

The following page shows the results of the demand zone analysis for fire risk:

City of La Crosse Fire Department
Fire Risk Response



Non-Structure Fire Risk Assessments

The following non-structural/building risks have been identified by type and location:

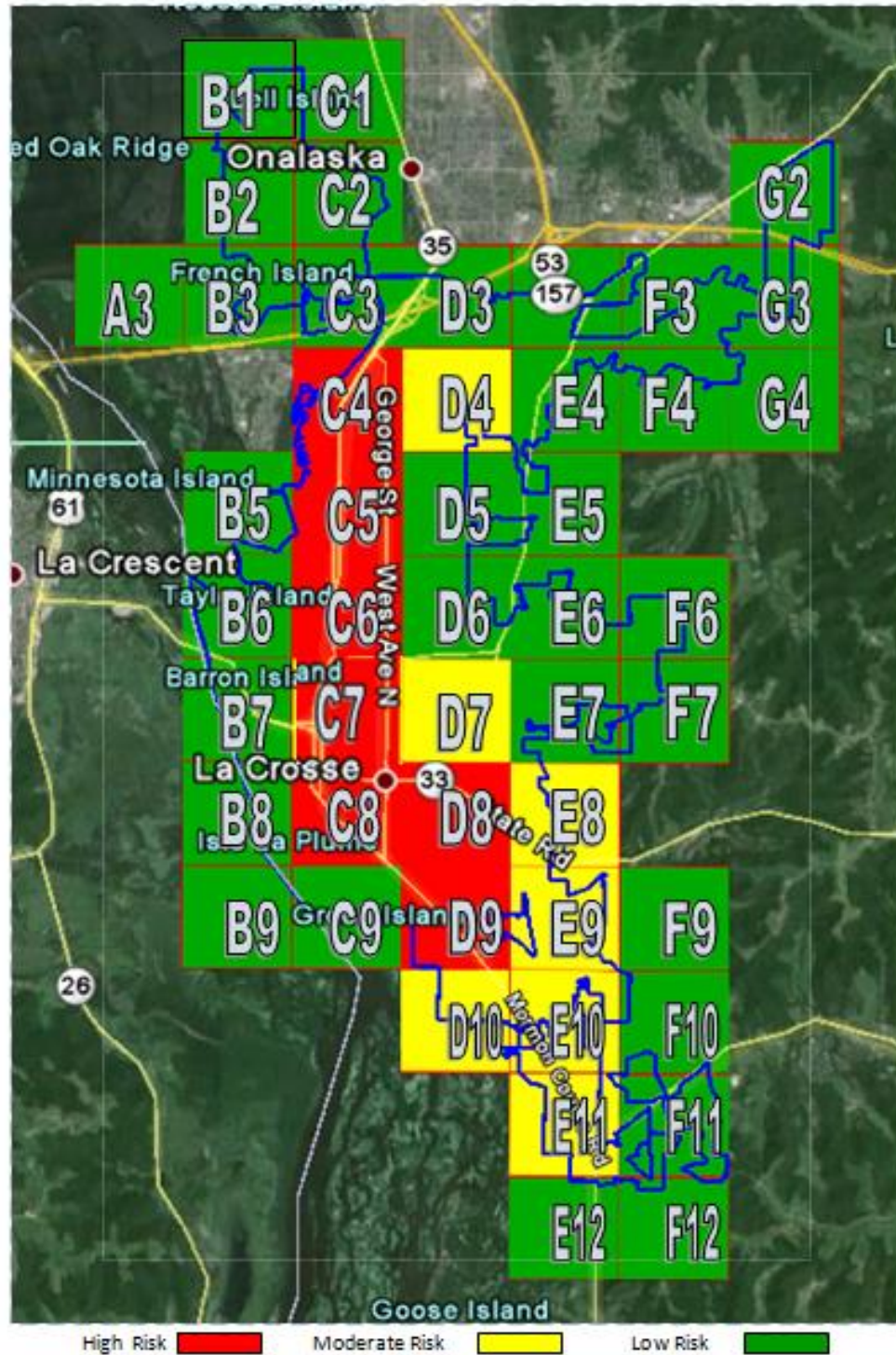
Emergency Medical Incidents

Agency firefighters are authorized to practice to the EMT-D level, serving as first responders trained to use defibrillators. The agency is not licensed for patient transport; Gundersen Tri-State Ambulance (a private service) is authorized for medical transports. It is not uncommon for agency personnel to assist Gundersen Tri-State Ambulance with patient transport to local hospitals (by assisting in the ambulance en route to the hospital).

Emergency medical risks – typically ranging from basic first aid to cardiac arrest, were evaluated as low, medium, or high; based on incident types, location (i.e. district, demand zone), demographics, population density, and call volume.

The following page shows the results of the demand zone analysis for EMS risk:

City of La Crosse Fire Department
EMS Risk Response



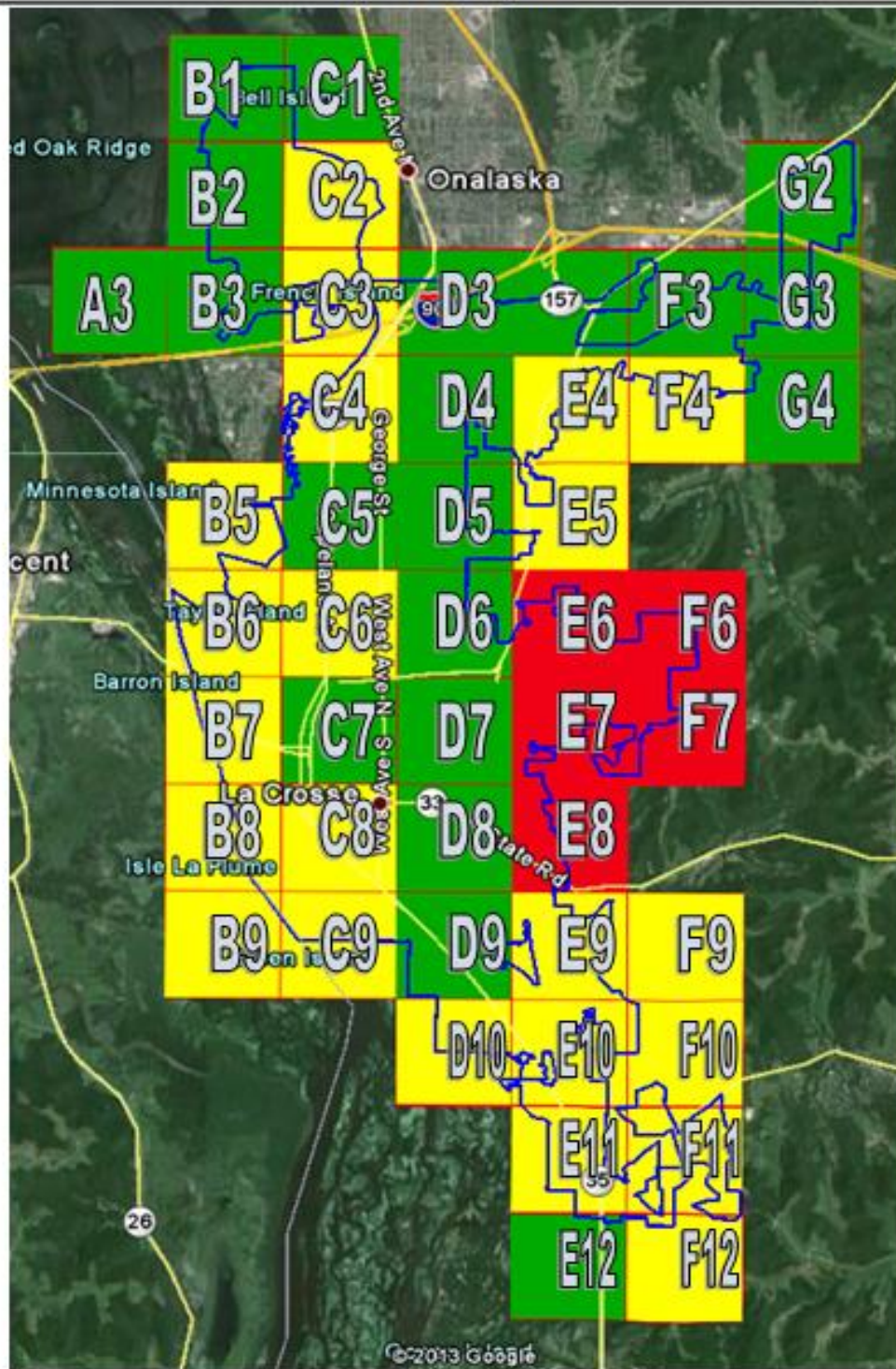
Rescue Incidents

Rescue risks – typically range from industrial accidents, motor vehicle collisions, entrapment, water/ice rescues, and urban search and rescue. All firefighters are trained in the use of extrication equipment, and basic rescue techniques. The agency has two specialty rescue teams (water/ice rescue, and Urban Search and Rescue - USAR). The water rescue team has 20 members including 13 divers. The USAR team has members that serve as part of the State of Wisconsin technical rescue team (WI-TF1). The USAR team has 18 firefighters trained in their area of specialized rescue.

Risks were evaluated as low, medium, or high; based on incident types, location (i.e. district topography - bluff land, demand zone, major road, rail & water ways), and call volume.

The following page shows the results of the demand zone analysis for rescue risk:

City of La Crosse Fire Department
Rescue Risk Response



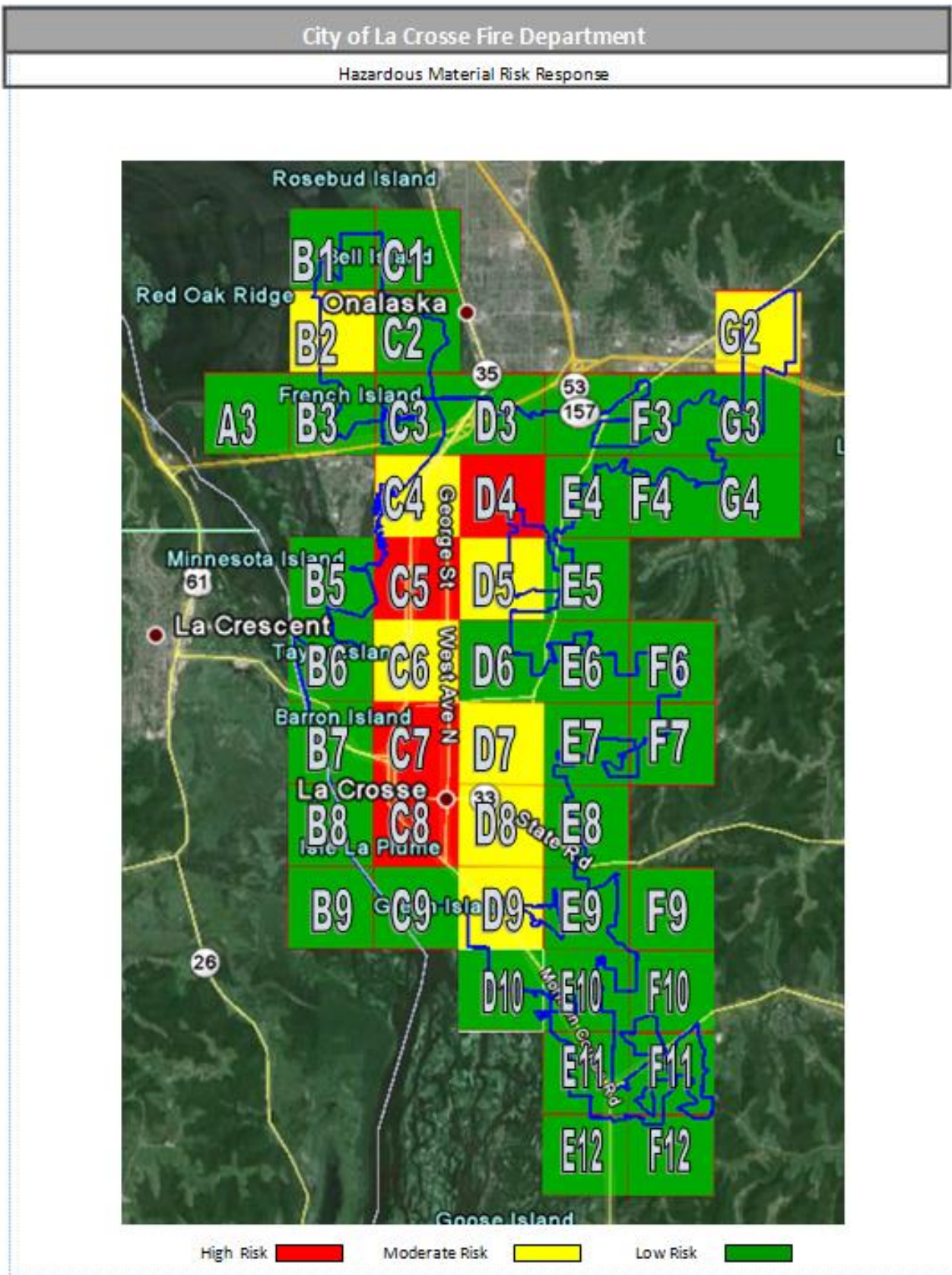
High Risk ■ Moderate Risk ■ Low Risk ■

Hazardous Materials Incidents

Hazardous materials risks – typically range from spills, leaks, releases, product identification, and product disposal. The agency has a specialty hazardous material team, which also serves as a State of Wisconsin regional hazardous materials team. This team has twenty-six firefighters trained at the technician level and all agency firefighters are trained at the operations level.

Risks were evaluated as low, medium, high; based on occupancy and incident types, location (i.e. district, demand zone, major road, rail & water ways), and call volume.

The following page shows the results of the demand zone analysis for hazardous materials risk:



Natural Hazard Assessment

Natural hazards such as tornadoes, severe thunderstorms/lightning, flooding, winter storms and extreme cold, heat drought and wildfires, and earthquakes have been identified as risks or possible risks to the City of La Crosse. These hazards have the ability to create conditions that would strain the resources of the La Crosse Fire Department. The La Crosse County Natural Hazards Assessment, prepared by NOAA/National Weather Service La Crosse and updated in November of 2015 was referenced for this natural hazard assessment.

Overview

La Crosse is in the Upper Mississippi River Valley of the Midwest with relatively hilly terrain and bluffs. The area experiences a temperate climate with both warm and cold season extremes. Winter months can bring occasional heavy snows, intermittent freezing precipitation or ice, and prolonged periods of cloudiness. While true blizzards are rare, winter storms impact the area on average about 3 to 4 times per season. Occasional arctic outbreaks bring extreme cold and dangerous wind chills. Thunderstorms occur on average 30 to 50 times a year, mainly in the spring and summer months. The strongest storms can produce associated severe weather like tornadoes, large hail, or damaging wind. Both river flooding and flash flooding can occur, along with urban-related flood problems. The terrain can lead to mud slides and generally increases the flash flood threat. Heat and high humidity is occasionally observed in June, July, or August. The autumn season usually has the quietest weather. Valley fog is most common in the late summer and early fall months. On calm nights, colder air settles into valleys leading to colder low temperatures compared to ridge top locations. High wind events can also occur occasionally, usually in the spring or fall.

Since 1998, La Crosse County has been included in a FEMA Federal Disaster Declaration 5 times:

1998 – Severe storms

2001 – Flooding

2004 – Severe storms / flooding

2007 – Severe storms / flooding

2008 – Severe storms / flooding

Tornadoes

The risk potential for a tornado is low to moderate, primarily highest in May and June. Even though Wisconsin averages about 23 tornadoes per year, La Crosse County has only had 16 tornadoes since 1950, averaging about one tornado every 4 years. Most tornadoes are short-lived and small. May and June are the peak months and most occur between 3 and 9 p.m., but they can occur nearly any time of year and at all times of the day. In May 2011, a tornado (EF2) crossed the south end of the City of La Crosse from the west side to the east side, damaging infrastructure, power and gas lines, buildings, businesses, homes, and many trees, miraculously there were no reported injuries. LCFD resources were quickly exhausted and an all call was placed for all off duty firefighters to report for duty.

Severe Thunderstorms / Lightning

The risk potential for severe thunderstorms is moderate, primarily highest from April to September, with a peak month of June. The National Weather Service (NWS) considers a thunderstorm severe when it produces wind gusts of 58 mph (50 knots) or higher, 1 inch diameter hail or larger, or a tornado. Downdraft winds from a severe thunderstorm can produce local or widespread damage, even tornado-like damage if strong enough. Most severe thunderstorm winds occur in June or July and between the hours of 4 and 8 p.m., but can occur at other times. Most damage involves blown down trees, power lines, and damage to weaker structures (i.e. outbuildings, garages) with occasional related injuries. In 1998, a large squall line moved through the region with wind gusts in excess of 100 mph knocking down hundreds of trees and damaging buildings. Large hail can also occur in a severe thunderstorm. June is the peak month with the most common time between 1 and 9 p.m., but it can occur in other warm season months and at any time of day. Hail is typically a crop damaging hazard but can damage roofs, windows, and vehicles if large enough (> 1"). Expenses can be high. Injuries or fatalities are rare for hail. In April 2011, hail up to 3" in diameter damaged hundreds of roofs and vehicles across mainly the south side of La Crosse causing millions in damages.

Non-severe thunderstorms still pose a lightning risk. Nationally, Wisconsin ranks 24th in lightning related fatalities with 6 deaths reported between 2001 and 2010.

All of these factors, in combination, or individually, have been cause for concern to the community and the agency over the years. Response incidents ranging from building lightning strikes causing structure and/or utility fires/power outages, fire alarm activations, to fallen trees and power lines can present a challenge to the agency. Since the resultant occurrences can be wide spread throughout the City, resources can be taxed to maximum levels; however normally only for a short period of time.

Flooding and Hydrologic Concerns

The risk potential for flooding is moderate from April to September. The highest probability for Mississippi River related flooding is late April from snow melting. On occasion intense, heavy rain producing thunderstorms or consecutive thunderstorms can bring excessive rainfall leading to flash flooding. The hilly terrain promotes rapid run-off and enhances the threat. Mudslides can occur in extreme cases. Intense rainfall rates also lead to occasional urban street flooding. June is the most common month for flash floods, but they can occur from May through September. They are most common in the evening hours, between 8-10 p.m., but can occur at other times and typically last from 3 to 6 hours. In August 2007, nearly 12 inches of rain fell in one evening across the City of La Crosse leading to widespread flash flooding and property damage. Water swept across parts of Highways 14 and 35 with large mudslides and a train derailment. The county was declared a federal disaster area with an estimated 15 million dollars in damage. Three main rivers can impact La Crosse, the Mississippi River, the Black River, and the La Crosse River. The Mississippi River is often highest in the spring associated with the seasonal snowmelt, but on rare occasions can reach flood stage during the summer or fall from heavy rain patterns. The combination of up-river snowmelt and area rain brought major flooding along the Mississippi River in April 2001, setting the 2nd highest crest levels in many locations. The record Mississippi River crest year remains 1965.

The agency is prepared to assist with flooding situations, including assisting with evacuation and surface water rescue, which could involve Boat 1, Boat 2, Dry Land Access Vehicle (DLAV), three inflatable Rapid Deployment Crafts (RDC), and other water rescue equipment.

In the event of a 100 year flood (depth of water at a river stage of 16.5 feet), sections of La Crosse's north side would be under water as projected by flood maps from the City's engineering department.

Winter Storms and Extreme Cold

The risk potential for winter storms and extreme cold are moderate to high from December to March. Hazardous winter weather can bring a variety of conditions to La Crosse. Since 1982, an average of three to four winter storms impact the area each season. The terrain does limit the number of true blizzards (only 3 since 1982) but heavy snow, blowing snow, ice, and sleet all occur. The 30-year average seasonal snowfall at La Crosse is 44.5 inches. The all-time record one-day snowfall in La Crosse was 16.7 inches set on December 7, 1927. The bulk of snow falls between December and March. On February 23-25, 2007, a major winter storm impacted La Crosse. Heavy snow, including lightning, brought nearly a foot of snow the first night. Winds later increased and created major blowing and drifting. Some sleet and freezing rain fell next, followed by another round of heavy snow and blizzard conditions the next night. When the storm finally moved out, 22.4 inches of snow had fallen, ranking as the largest multi-day snow storm on record. Another major storm hit less than a week later, leading to the snowiest week on record (27.4" in a 7-day period, ending 3/2/07). March can often be a snowy month. Even though snowfall may be less frequent, heavy wet snow can form from large spring storms. In 1997, a large winter storm dropped nearly 20 inches (19.7") of wet snow in La Crosse.

Ice storms (1/4" of ice or more) can occur but are relatively rare with only six occurrences since 1982. Arctic cold outbreaks can occur in the upper Midwest as well. Snow depth can modify these cold temperatures leading to sub-zero readings on average 22 times a winter. Occasionally strong northwest winds will combine with arctic outbreaks to create dangerous wind chill conditions as well. The coldest temperatures are usually in January and February with average lows in the single digits and record lows colder than -25°F most days. The all-time record low is -43°F set in 1873. In 1996 La Crosse went six consecutive days with temperatures below zero degrees (F) following a blizzard about a week earlier. Record low temperatures of -34 degrees (F), -35 degrees (F), and -31 degrees (F) were set on three straight mornings.

Winter storms can be such that severe cold could affect pumping operations due to freezing and snow/ice accumulation. Ice accumulation on power lines causes downed power lines and power outages. It also affects road conditions; slowing down response times for emergency calls, and makes hydrant location and access difficult.

Heat, Drought, and Wildfires

The risk potential for heat, drought, and wildfires is moderate during the summer months. On occasion the weather pattern across the upper Midwest favors prolonged heat and humidity, leading to heat waves. June through August is the warmest months with average high temperatures in the 80s and record highs above 100°F most days. The warmest temperature on record at La Crosse has occurred twice, 108°F set on July 13, 1995 and July 14, 1936.

Prolonged dry spells can also lead to drought causing extreme damage to crops. Droughts vary in length and intensity but abnormally dry to moderate drought conditions can occur quite frequently. Severe to extreme droughts occur far less frequently. Dry weather can also lead to a wildfire threat, especially in the spring before foliage has emerged (i.e. before green up) or in the fall after vegetation has started to die off. Warm, dry (i.e. lower relative humidity's), and windy conditions all favor higher fire danger and can lead to sporadic grass fires in La Crosse. Thick, wooded areas also pose a threat for wildfires under extremely dry conditions but occur far less frequently.

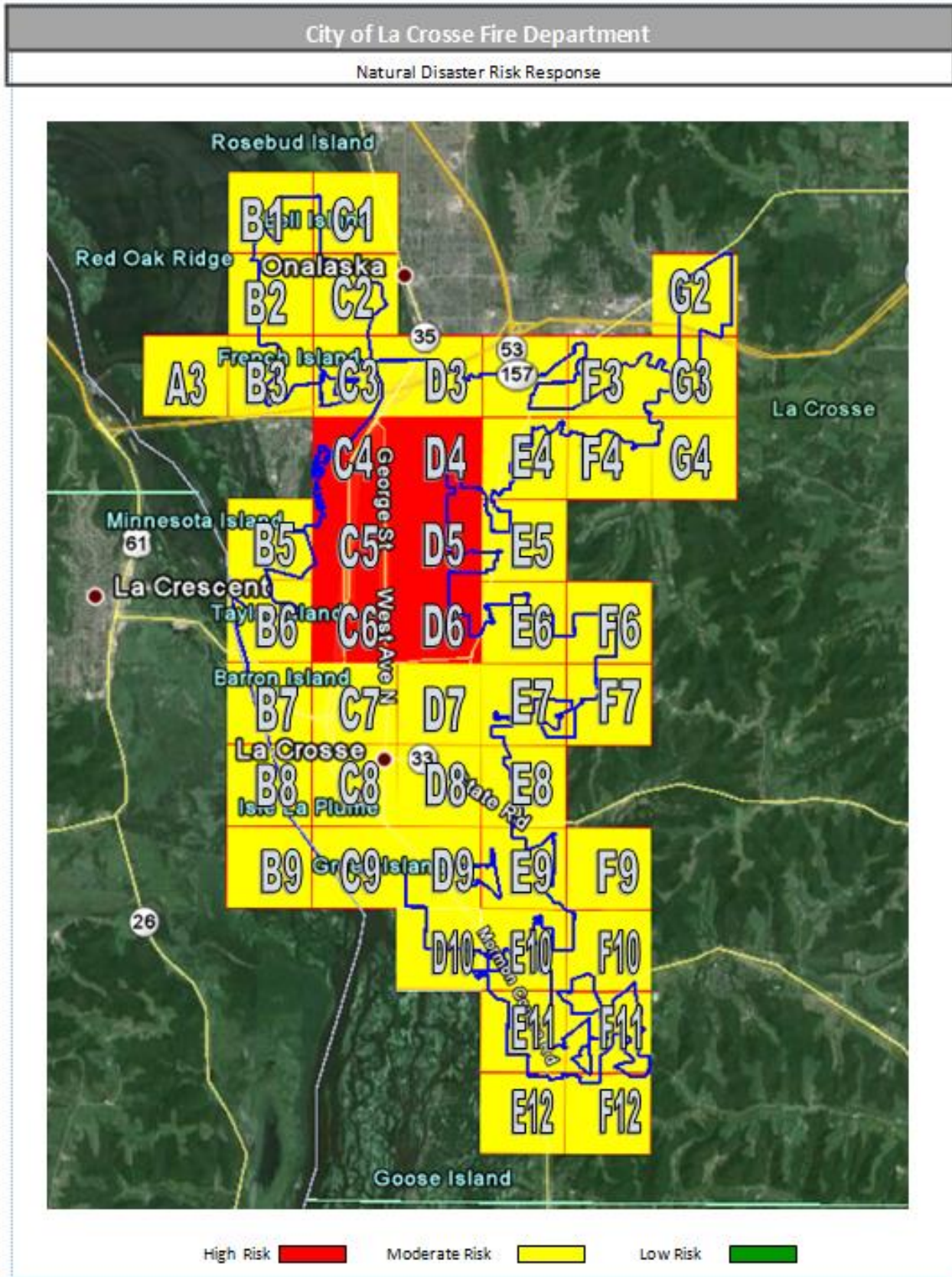
High heat conditions can be taxing to firefighters during an emergency situation as the risk of heat exhaustion increases. Fighting a large grass fire can be very labor intensive to firefighting staff, as they are many times faced with using water cans if the locations are not accessible by fire apparatus. The general population is also at greater risk during high heat conditions which can lead to an increase in related medical responses for the agency

Earthquake

The risk potential for an earthquake is generally low as compared to the rest of the United States. The La Crosse area has a low rate of seismic activity. The La Crosse Fire Department would be

prepared to assist in the rare event that a seismic movement was strong enough to cause damage to areas of La Crosse. As history indicates, most movement that has occurred has been minimal; therefore any damage that may occur could be expected to be limited to infrastructure such as underground water mains and water and gas lines and possibly power interruptions. Evacuation assistance or standby requirements could also be a possibility.

The following page shows the results of the demand zone analysis for natural disaster risk:



Population Analysis

La Crosse's population was analyzed for each of the forty seven planning zones, basically to find out where people live and where the potential is for emergency responses.

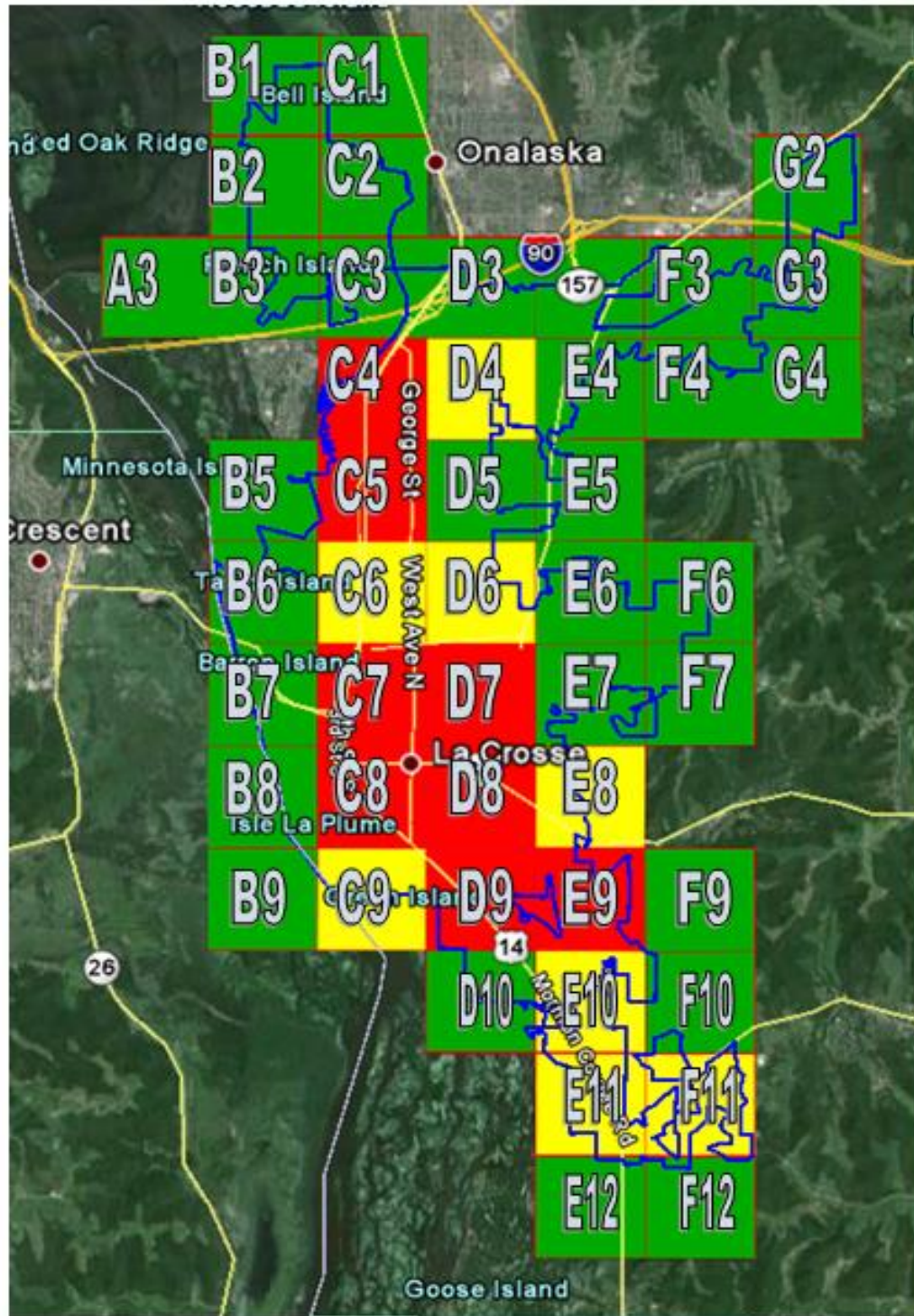
The following page shows the results of the demand zone analysis for population:

Low planning zones (green) have less than 500 persons

Moderate planning zones (yellow) have between 500 and 2500 persons

High planning zones (red) have greater than 2500 persons

City of La Crosse Fire Department
Population Risk Response



>2500 High Risk ■ 500-2500 Moderate Risk ■ <500 Low Risk ■

Technological/Human Hazard Assessment

The following technological/human hazards were identified as being potential risks to the City of La Crosse. An incident involving any one of these hazards has the ability to create a dramatic strain on the emergency services resources.

1) Utility Failure

The risk potential for prolonged utility failure in La Crosse is low to moderate; with low consequence. However, this would be dependent upon the duration of incident and time of year. Utilities such as water, gas, electricity and phone are located throughout La Crosse which all are at risk of disruption in service as a result of equipment fatigue or failure as well as being affected by natural causes i.e. weather related, or mechanical damage i.e. road construction mishaps.

The disruption of any of these services could essentially affect response times because of detours caused by necessary repairs being conducted, traffic lights not working etc. Interruptions in gas and electrical service can also cause an increase in public service calls, fire alarm signals and fire calls due to unsafe or improper candle and wood burning appliance use. Generally, utility service is only disrupted for a relatively short period of time; however the potential is always there.

The agency is prepared to respond and assist with water main breaks and resulting flooding, gas line breaks, securing the scene when downed power lines are a threat to the community etc. La Crosse County 911 Emergency Dispatch Center (EDC), as well as the Emergency Operations Center (EOC) is able to continue functioning in the event of an electrical power failure.

2) Structure Fires – Conflagration

The City of La Crosse covers approximately 22 square miles with the bulk of the buildings consisting of commercial, industrial, and residential structures. The agency responds to over 100 structure related fires annually; therefore the risk is moderate with the consequence being moderate as well. Although there is always a low risk of conflagration as a result of an incident such as an aircraft mishap in a heavily populated area, the main area of concern with respect to the possibility of conflagration would be in the downtown core. The core is made up of several

rows of century old multi story physically attached commercial/residential buildings. Many downtown buildings do not have sprinkler systems or fire alarm systems and have been through various structural alterations over the years; including dividing walls and false ceilings. However, stone walls originally constructed as fire walls between many of the buildings have proven to be effective in the past at preventing major fires from escalating into a conflagration situation. Since 2010 there has been an increase of 23% of people living in the downtown area. La Crosse has started to go vertical with its buildings with a mix of commercial and residential living in our downtown district.

Currently, the agency's headquarters station #1 is located at the south end of the downtown core. Station #1 houses the largest number of on-duty staff and equipment. Therefore, first due response time to the downtown core with the greatest number of equipment and staff is very quick, improving the chance of containing a fire at the incipient or early stage. The agency has the resources to deal with major structure fires and when required, can initiate a call-back utilizing TeleStaff or EDC whereby all off-duty staff would be called to respond. Should a conflagration occur to the point where more resources would be required, mutual aid could also be initiated.

3) Transportation – air, rail, highway, and water

Air

The La Crosse Regional Airport lies within the city limits of La Crosse on the city's far north side. The airport sits on 1,380 acres of land and supports 25,000 operations annually, and processes 189,000 passengers annually. Delta Airlines and American Airlines are currently offering several daily flights. While there is a constant stream of aircraft activity over the City, the potential risk hazard for an aircraft incident is low with the consequence being very high.

LCFD conducts joint training operations with the La Crosse Regional Airport Fire Department. The agency participates in annual disaster drills at the airport to prepare for an airline emergency.

Rail

La Crosse railway traffic includes the Canadian Pacific Railway that operates 28 trains per day including two Amtrak passenger trains and the Burlington Northern-Santa Fe that operates 40 to

50 trains per day. These rail tracks cross many of the City's roadways used for responding to various locations throughout the City. Response strategies are in place to use overheads (bridges built over railroad tracks) to avoid encountering delays from train traffic while on emergency responses. In 2017 the agency installed computer screens at Station 3 that have a live graphical usage feed of the train tracks. This gives crews the opportunity to verify if the tracks are clear of train traffic at a glance and if we can cross them, thus saving time on responding to emergencies. The agency has been faced with vehicle train collisions as well as pedestrians being struck at crossings. The possibility of a train derailment is a very real possibility within the City; however the risk is low, but the consequence could be very high; especially if the train was transporting hazardous materials as is so often the case. There is also the possibility of a derailment being a threat to residential, commercial or industrial properties which could increase the overall threat.

Over the years, members of the agency have participated in rail car training and hazardous materials release/fire incident training and would be prepared to respond accordingly to fire, rescue and/or hazardous release incidents involving rail car(s).

Highway

Interstate I-90 and numerous State highways are critical to transportation in the agency's response region. La Crosse has approximately 220 miles of streets and highways. The risk potential for having to respond to an incident on any portion of these streets and highways is moderate with the consequence in most cases being low i.e. motor vehicle collision involving two or more vehicles with possible injuries/fatalities. However, in the event of an incident involving a major fuel or other hazardous product spill/fire from a transporting water tender could result in a moderate hazard for the agency's resources.

The agency's first responding fire apparatus contains vehicle extrication equipment and basic life support supplies as well as an adequate water/foam supply to deal with motor vehicle collisions; including fire.

Water

There are three major rivers in the agency's response region, the Mississippi River, the Black River, and the La Crosse River. La Crosse has 23 miles of shoreline and 1,350 acres of

marshland. Barge traffic on the Mississippi River brings 2,434 barges annually transporting 45,575 tons of petroleum and 966,115 tons of chemical fertilizers.

The possibility of a barge or large vessel accident is a possibility on the Mississippi River; however the risk is low, but the consequence could be very high; especially if the barge was transporting dangerous goods. There is also the possibility of an accident causing environmental harm to the Mississippi River which could increase the overall threat. Every year the agency responds to multiple requests for water/ice rescues.

Members of the agency have participated in water rescue training and would be prepared to respond accordingly to fire, rescue and/or hazardous release incidents on area water ways.

4) Natural Gas Pipelines

The City of La Crosse has a high concentration of underground natural gas pipelines supplying fuel for heating to the many homes and businesses throughout the City. It is not uncommon for the agency to respond to reported gas leaks as a result of a ruptured pipeline. This occurrence, in many cases, is usually a result of mechanical damage caused during construction activity of some sort. The risk hazard with this type of occurrence is low to moderate with the potential consequence being moderate to high. La Crosse also contains several industries that have internal processes involving the transfer of flammable/combustible liquids and/or gases.

The agency conducts training sessions with the local gas utility company (Xcel Energy) on how to respond to natural gas incidents; while the agency's hazmat team has the knowledge and equipment to assess and deal with associated risks involving transfer piping systems.

5) Chemical Facilities

Hydrite Chemical, located in La Crosse near the Black River, is one of the nation's largest independent providers of chemicals and services, shipping and storing more than 400 different chemicals. Hydrite Chemical has a bulk storage capacity of 2,027,500 gallons. La Crosse has 94 facilities that have a reportable amount of hazardous materials. The risk hazard for a hazardous materials incident at a chemical facility is low to moderate with the potential consequence being moderate to high.

The agency has participated in hazardous materials mitigation training at chemical facilities. The agency has conducted training in hazardous materials release/fire incident training and would be prepared to respond accordingly to fire, rescue and/or hazardous release incidents involving a chemical facility.

Security Hazard Assessment

The following security hazards have been identified as possible risks to the City of La Crosse. Although the following events are mentioned in this document, it is felt that the overall risk potential of an actual occurrence of this nature is very low. Nevertheless, the consequences associated to any one of the following could be very high and severely strain the resources of the agency.

1) Civil Disorder

The City of La Crosse is located on the mighty Mississippi River, approximately 140 miles northwest of Wisconsin's capital city of Madison. La Crosse is located approximately 155 miles to the southeast of Minneapolis, Minnesota and 280 miles to the northwest of Chicago, Illinois. La Crosse has a population of 51,800 and covers 22 square miles. The University of Wisconsin La Crosse, Viterbo University, and Western Technical College have a combined student population of over 17,000, of which many do not reside in the City. To date, there has not been any significant disorder or unrest within the City. Moderate to low levels of civil disturbance have occurred in the downtown and college areas during civic events and festivals (such as Oktoberfest). Therefore, the risk of civil disorder in the City of La Crosse is low with the consequences being low to moderate.

Civil disorder could include riots, violent protests, and large outbreaks of destructive or malicious behavior which could involve the setting of vehicle and structure fires. In the event that civil disorder of any kind did break out, the agency's role would be to only perform the normal fire and emergency functions and not to be involved with crowd control or in preventing resulting human destruction/vandalism.

In the event a threat of any kind was received, the City of La Crosse Police Department would initially prepare for the potential situation. If and when the event escalated or had the potential

to escalate to a scale that could affect the community at large, the police would notify the agency. The agency would act accordingly upon being placed on standby and respond as necessary.

2) Nuclear Attack

The City of La Crosse is far enough away from major cities that the possibility of a nuclear attack, specifically on La Crosse, is highly improbable. Although in today's world, the threat from a nuclear attack could be anywhere around the globe; with the possibility of broad range coverage that could pose as a high consequence.

The City of La Crosse is in close proximity to two nuclear power generation plants; Genoa Nuclear Power Plant near Genoa, WI (12 miles to the south of La Crosse) and Prairie Island Nuclear Power Plant near Red Wing, MN (92 miles to the northwest of La Crosse). Both facilities store spent radioactive fuel. The agency has a hazardous materials radiological field response team, under its hazardous materials program, that would respond to a radiological emergency at either site. The radiological field team is also available to respond to radiological emergencies in the City of La Crosse and in its State of Wisconsin regional response district.

3) Terrorism

The threat of terrorism is a reality in any city in the United States. The City of La Crosse does not have the "typical" terrorism targets that are found in larger metropolitan cities. As is all too common in the world today, domestic terrorism can happen anywhere, and at any time; although the risk is very low, the consequence has the potential to be very high. The agency would deliver emergency services in the event of an act of terrorism. The agency would perform fire, medical, hazardous materials, urban search and rescue, and water rescue activities accordingly with the option of initiating a department call-back and possibly a mutual aid request. All agency Emergency Medical Technicians (EMTs) are trained in first response awareness for Weapons of Mass Destruction (WMD). The agency's hazardous materials response team is a member of the State of Wisconsin regional network. The agency has twenty five members trained to the

hazardous materials technician level. Team members are trained for Chemical, Biological, Radiological, Nuclear, and Explosive (CBRNE) responses, which could result from a domestic terrorism attack. All agency members are trained to an awareness level in CBRNE responses. The agency has a radiological field team available to respond to radiological emergencies in the City of La Crosse and in its State of Wisconsin regional response district. The agency has the hazardous materials apparatus and equipment to respond and mitigate an act of terrorism.

The La Crosse Fire Department Urban Search and Rescue (USAR) team is a member of the State of Wisconsin regional network (WI-Task Force 1). The agency has 18 members trained in the four disciplines of technical rescue; confined space, trench, collapse, and rope rescue. The agency has the USAR apparatus and equipment to respond and mitigate an act of terrorism.

Critical Task Analysis

There are critical tasks that must be conducted by firefighters at structure fires, by rescuers at vehicle accidents, and by EMS personnel at a medical-aid incident. The agency conducted an assessment of critical firefighter tasks to create a standard level for response in the mitigation of an emergency incident. In the Effective Response Force (ERF) section of this document (page 109) the agency listed critical firefighter tasks for low, moderate, and high risk occupancy responses to structure fires, emergency medical calls, emergency rescues, emergency hazardous materials responses, and emergency report out responses.

The agency reviewed in detail the operations required at all of the above listed emergency responses. For example, an interior fire attack operation was reviewed. To conduct an interior attack, firefighters are required to use protective equipment, including turnout gear, SCBA, and an appropriate number of fire attack and exposure protection and minimum of 1 ¾ inch hose lines. Additional personnel must be staged to perform rescue functions for interior firefighting personnel, and a command structure must be in place. Since the establishment of OSHA 29 CFR 1910 (2 in/ 2 out standard), the agency must have in place a rapid intervention crew, as the effective response force arrives on scene. While other tasks may be achieved at different times, these functions must be in place prior to entry into the IDLH atmosphere.

In conducting this critical task analysis the agency followed industry standards, such as OSHA 29 CFR 1910, Wisconsin SPS 330.14(3), National Institute of Standards and Technology (NIST) studies on Residential Fireground Field Experiments and EMS Field Experiments. The agency also relied on past historical practices and past performance outcomes at these emergencies.

Historical Perspective and a Summary of the System Performance with Performance Objectives and Performance Measures

Resource Management

A critical element in the assessment of any emergency service delivery system is the ability to provide adequate resources for anticipated fire control and extinguishment, medical emergencies, and other incidents such as rescue, hazardous materials, and natural or uncommon disasters.

Each incident requires a variable amount of staffing and resources to be effective. Properly trained and equipped fire crews must arrive, deploy, and mitigate the event within specific timeframes if successful emergency event strategies and tactical objectives are to be met. Each event whether fire, medical emergency, rescue operation, disaster response, and other situations will require varying and unique levels of resources. For example, controlling a fire before it has reached its maximum intensity requires a rapid deployment of personnel and equipment within a limited timeframe.

There is a direct correlation between the type of risk and the amount of resources needed to mitigate that risk. More resources, both in equipment and staffing, is required for the rescue of persons trapped within a high-risk building with a high-occupant load, than for a low-risk building with a low-occupant load. Similarly, more resources are required to control fires in large heavily loaded buildings than in small buildings with limited contents. Therefore it is important to create a well-matched level of service through the distribution and concentration of resources to that of the potential demand placed upon them by the level of risk in the community.

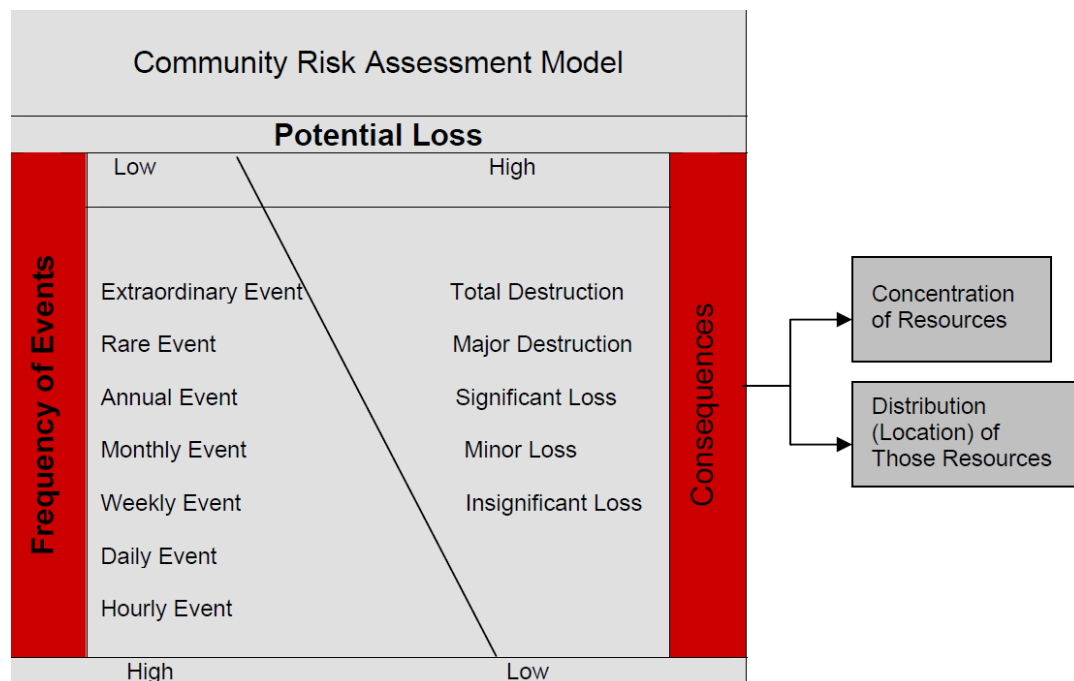
The objective is to have a distribution of resources that is able to reach a majority of events in the timeframe as stated in the service level goals. The following factors; (or lack thereof) are examples of what can attribute to different types of risk levels, and which would indicate the need for higher or lower concentration of resources:

- Inability of occupants to take self-preserving measures
- Type of construction
- Size and height of building
- Lack of built-in fire protection (fire alarms, automatic sprinklers)
- Exposures
- Lack of needed fire flow (water supply)
- Building access (exterior & interior)
- Separation distance between buildings
- Hazards in a building

Evaluation of such factors lead to the number of personnel needed to conduct the critical tasks necessary to contain the event in an acceptable timeframe. The level of service provided by an agency should be based on the agency's ability to cope with various types and sizes of emergencies that the agency can reasonably expect after conducting a risk assessment. This process starts with examining the most common community risk, the potential fire problem, target hazards, critical infrastructure, and an analysis of historic call data review.

Community risk assessment incorporates the various elements of risk to the relationship among the community as a whole, the frequency of events that occur, the severity of potential losses, and the usual distribution of risks. Overall, the City and its service areas are likely to have a wide range of potential risks. Normally, there is an inverse relationship between risk and frequency. The daily event is usually the routine type of risk that results in minimal losses, while significant events are less frequent. Toward the highest risk levels, the events are less frequent. If

the risk management system is working in the community, a catastrophic loss should be an extraordinary event. The objective of a risk assessment is to reduce the truly serious loss to a very unusual event for the area served and involves trying to keep routine emergencies from becoming serious loss situations. This is accomplished only when a comprehensive Standards of Cover integrated risk management plan has been developed, which provides the necessary resources for those risks identified within the city.



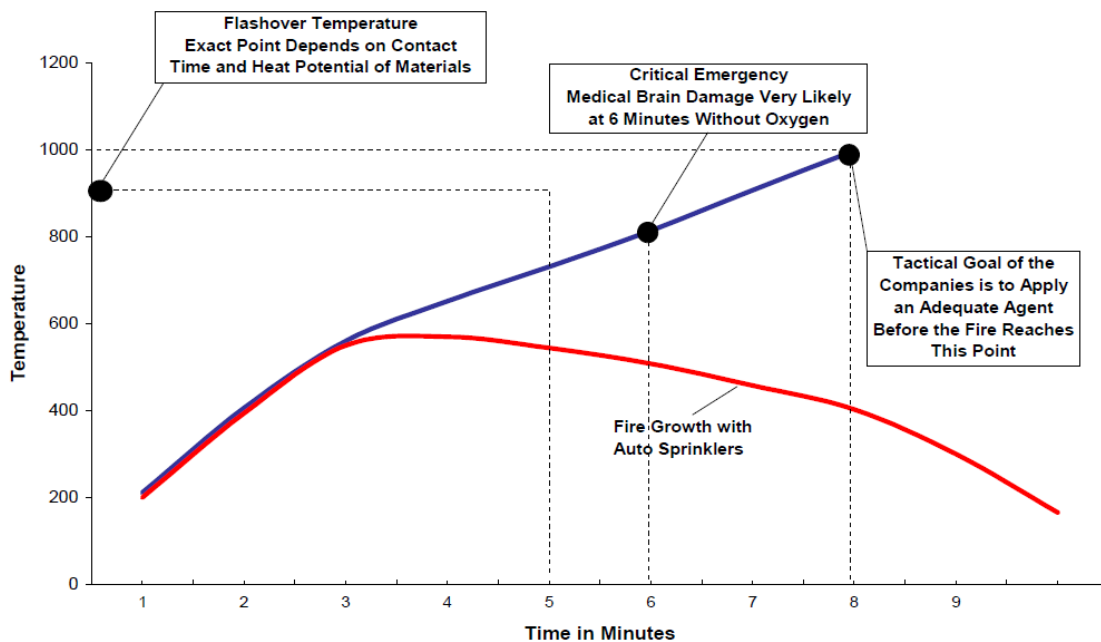
The purpose of risk assessment is not only to evaluate risks and hazards in the agency's response area, but also to provide a basic methodology to evaluate existing response coverage. The process begins with the identification of community hazards and risks. Hazard is defined as *a source of potential danger or an adverse condition*; risk is defined as *the possibility of loss or injury; the exposure to the chance of loss; the probability of an event multiplied by the significance of the consequence (impact) of the event = Risk (Risk = Probability x Impact)*. To determine the overall community risk and vulnerability, several areas must be assessed.

Evaluating Community Risk

It is important to provide a description of the scope, complexity, and relationship of the various risk factors within the City of La Crosse and the method used to evaluate these risks.

The City of La Crosse presents a variety of risks that the agency is routinely called upon to respond to. These areas include both a structural/fire and non-structural/fire risk in this evaluation. Non-structural risks include emergency medical, hazardous materials, rescue (motor vehicle, water & ice, machinery entrapment), grass/brush fires, and possible natural disasters. Structural risks evaluated included various types of buildings throughout the service area. In order to determine the extent of various risk factors, the agency analyzed the demographics in the area protected, the building stock, historical call volume, assessed value, the existing deployment of resources.

The following table illustrates the need for rapid response to fire response to mitigate these emergencies.



Evaluating Fire Suppression Capabilities

Firefighters encounter a wide variety of conditions at each fire. Some fires will be at an early stage and others may have already spread throughout the building. This variation in conditions complicates attempts to compare agency capability. A common reference point must be used so that the comparisons are made under equal conditions. In the area of fire suppression, service-level objectives are intended to prevent the flashover point, a particular point of a fire's growth that makes a significant shift in its threat to life and property. Fire suppression tasks required at a typical fire scene can vary a great deal.

What fire crews must do, simultaneously/systematically and quickly, if they are to save lives and limit property damage, is to arrive within a short period of time with adequate resources to do the job. Adequately matching the arrival of resources within a specific time period is the objective of developing a comprehensive Standards of Cover.

The Stages of Fire Growth

Virtually all structure fires progress through a series of identifiable stages.

Stage 1: *The Ignition Stage* -The ignition of a fuel source takes place. Ignition may be caused by any number of factors, from natural occurrences such as lightning to premeditated arson.

Stage 2: *The Smoldering Stage* – When heat is applied to a combustible material, the heat oxidizes the material's surface into combustible gases. The oxidation process is exothermic; meaning the oxidation process itself produces heat. The heat from oxidation raises the temperature of more material, which increases the rate of oxidation and begins a chemical chain reaction of heat release and burning. This stage can vary in time from a few minutes to several hours. When sufficient oxygen is present, the fire will progress to the open-burning stage.

Stage 3: *The Incipient/Open Burning Stage* - When the temperature gets high enough, flames can be seen. The visible burning at this stage is still limited to the immediate area of

origin. The combustion process continues to release more heat, which heats nearby objects to their ignition temperature, and they begin burning.

Stage 4: *The Flashover Stage* - Not all combustible gases are consumed in the incipient stage; they rise and form a superheated gas layer at the ceiling. As the volume of this gas layer increases, it begins to bank down to the floor, heating all combustible objects regardless of their proximity to the burning object.

Flashover:

The flashover stage is very significant because it marks a critical change in conditions. This turning point in fire conditions escalates the challenge to a fire department's resources.

Research into the flashover phenomenon has yielded criteria that precisely measure when flashover occurs; however, any exact scientific measurement in the field is extremely difficult. Observable events that would indicate a flashover are "total room involvement" and "free burning." These indicators are easily observable by firefighting personnel and the public and can be easily recorded and retrieved for future evaluation. Both scientific tests and field observations have shown when flashover is experienced, it has a direct impact on fire protection and the ability of the emergency services system.

- a. Flashover occurs at a temperature between 1,000 and 1,200 degrees Fahrenheit. These temperatures are well above the ignition points of all common combustibles in residences, businesses, and industries. When this temperature range is reached, all combustibles are immediately ignited. Human survival after this point is highly improbable without specialized protective equipment.

- b. At the point of flashover, lethal fire gases (carbon monoxide, hydrogen sulfide, cyanide) increase explosively. People exposed to these gases, even when not directly exposed to the fire, have drastically reduced chances of survival.
- c. Flashover can occur within a relatively short period of time. Precisely controlled scientific tests indicate that flashover can occur in as little as two minutes from the flame stage. On the other hand, field observations of actual fires indicate that total room involvement can take as long as 20 minutes or more. There is no way to ascertain the time to flashover since it is not possible to determine when a fire started. Nevertheless, a correlation can be drawn between flashover and the entire fire protection system. As suggested previously, the number of times that fires are controlled before flashover depends on the entire fire protection system and is not solely dependent upon emergency response forces.

The Significance of Flashover

Pre – Flashover

Limited to one room

Requires smaller attack lines

Search and rescue is easier

Initial assignments can handle

Post - Flashover

May spread beyond one room

Requires larger, more attack lines

Compounds search and rescue

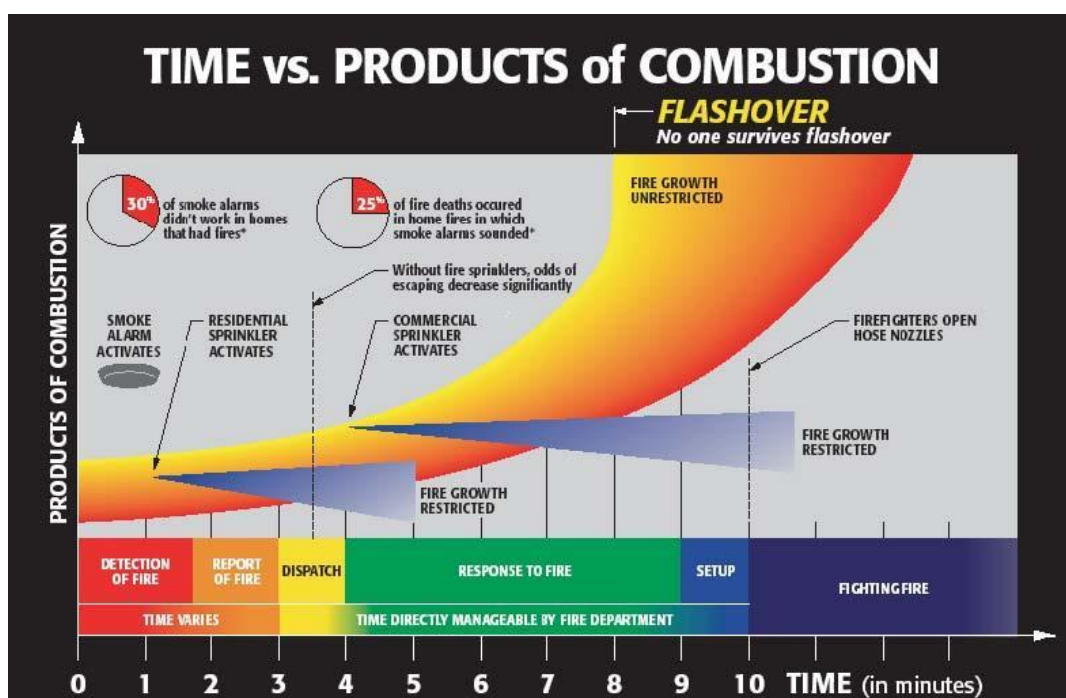
Requires additional companies

Staffing and equipment needs can be reasonably predicted for different risk levels and fire stages. The correlation of staffing and equipment needs with fires according to their stage of growth is the basis for response coverage. The goal is to maintain and strategically locate enough firefighters and equipment so a minimum acceptable response force can reach a fire scene before flashover occurs, and mitigate medical emergencies.

To minimize risk, the agency strives to extinguish small fires quickly before they reach flashover potential to minimize risk and to mitigate medical emergencies quickly to reduce cardiac death. As flashover is such a significant fire event, preventing this stage of fire behavior is imperative. Time is a key factor in this effort. Once flashover potential is reached, an exponential increase occurs not only in the rate of combustion, but in the amount of resources necessary to mitigate the fire emergency.

Products of Combustion

The air people breath is approximately 21 percent oxygen. When oxygen levels drop below 19 percent and is still above 12 percent, judgment is impaired, the pulse rate increases, and fatigue is present. If levels drop further, to less than 12 percent, but greater than 6 percent, extreme fatigue, nausea, and vomiting will occur. In the final stages of deprivation, when levels are 6 percent or lower, convulsions and cardiac arrest will occur, resulting in death. This is simply due to the absence of oxygen. The graphic below illustrates the relationship between the physics of the fire and the factors the agency can control:



To summarize the above, the stage of a fire affects staffing and equipment needs. Several critical points are obvious. The time it takes to detect the fire and report it can be positively influenced by automatic-alarm systems. The early suppression of fires by installed fire protection systems can also have significant impact on the outcome. However, if neither of these mitigations sources is present, the fire suppression forces must arrive within a certain timeframe, allowing adequate application of water to the fire prior to flashover if the suppression efforts are to have the most beneficial results.

Evaluating EMS Capabilities

Additionally, survival of cardiac death or in a fire preventing flashover is often time driven. The brain can only be without oxygen for a short period of time, i.e., four to six minutes. Rapid intervention is necessary to prevent brain death from occurring.

From an emergency medical perspective, the service-level objective typically is to provide medical intervention within a six-minute timeframe, as brain damage is very likely at six minutes without oxygen. However, in a cardiac arrest situation, survivability dramatically decreased beyond four minutes without appropriate intervention. Intervention includes

early recognition and bystander CPR. When cardiac arrest occurs, the heart starts to beat chaotically (fibrillation) and cannot pump blood efficiently. Time is critical. If a normal heart rhythm is not restored in minutes, the person will die. In fact, for every minute without defibrillation, the odds of survival drop seven to ten percent. A sudden cardiac arrest victim who is not defibrillated within eight to ten minutes has virtually no chance of survival.

The shortest possible response times create the highest probabilities of resuscitation. An important evaluation point lost on most agencies is the time that crews reach patient side. Often the clock stops when the vehicle arrives or stops at the address. The key to a successful outcome is the point the patient is actually contacted. In high-rise communities or other larger complexes, this time period can be substantial and can most certainly affect the outcome due to delayed intervention.

A study by the Emergency Medical Director's Association of California offers supporting evidence. The results of that study, depicting the relation of timing to two key resuscitation efforts, CPR and defibrillation, are illustrated in the following table:

Collapse to CPR	Collapse to Defibrillation	Probability of Survival
< 5 Minutes	< 10 Minutes	37%
< 5 Minutes	> 10 Minutes	7%
> 5 Minutes	< 10 Minutes	20%
> 5 Minutes	> 10 Minutes	0%

Distribution

Distribution is the geographic location of all first-due resources for initial intervention.

The agency has four fire stations. See Appendix B for a fire station response zone map.

The City of La Crosse has approximately 220 miles of roads.

The following shows the approximate road miles per station response area:

Station	Road Miles	Percent
Station 1	55	25
Station 2	35	16
Station 3	75	34
Station 4	55	25

The City of La Crosse covers approximately 22 square miles or 14,283 acres.

The following shows the approximate square miles covered per station response area:

Station	Square Miles	Percent
Station 1	4.4	20
Station 2	3.3	15
Station 3	8.8	40
Station 4	5.5	25

The City of La Crosse has a population of approximately 51,800, with approximately 16,000 buildings.

See Appendix G for a population map by the forty seven planning zones.

The following table shows the approximate number of buildings per station response area:

Station	Buildings	Percent
Station 1	3,281	20
Station 2	1,615	10
Station 3	8,104	51
Station 4	3,000	19

GIS Analysis

In 2011 the La Crosse Common Council “Fire Department Management and Operations Committee” hired a consulting firm to provide GIS analysis of the agency and City of La Crosse. ArcGIS 9.2 navigation model software was used by Mapping Specialists Ltd.

The results of this GIS analysis are in Appendix H.

Since that time the City has hired a part time GIS Analyst that works under the City IT Department.

Significant points:

- Based on GIS analysis the study determined that there was a need for one more fire station in La Crosse to meet travel time standards
- Maps were provided with optimum station locations and the location of a proposed fifth fire station

- Travel time analysis was provided of the four current stations – areas of concern were noted with over 5 mile travel distances of first due units and over 8 mile travel distances for balance of alarm units
- Travel time analysis expectations including a proposed fifth fire station

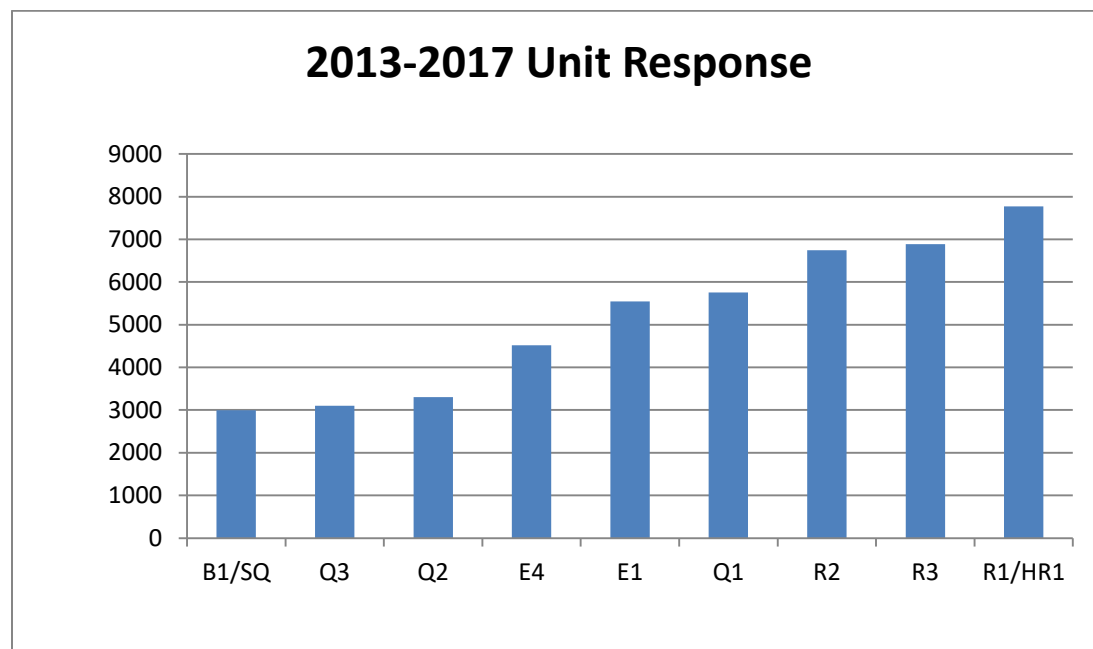
Concentration

Concentration is the spacing of multiple resources arranged to that an “effective response force (ERF)” can arrive on scene within the adopted time frames.

Due to the loss of our previous software and turnover of personnel the agency has invested in First Watch software to measure performance ERF data for all different types of agency responses in 2018. The build out of our ERF tables are being finalized.

An overview of agency responses by apparatus from 2013 through 2017 is shown below:

Unit	Responses
SQ(Renamed B1)	2,996
Q3	3,103
Q2	3,302
E4	4,520
E1	5,544
Q1	5,757
R2	6,743
R3	6,887
HR1 (Renamed R1)	7,768
	49,509



Performance Objectives

Performance objectives follow the SMART (Specific, Measureable, Attainable, Relevant, and Timely) formula. They are relevant to the following analysis on the evaluation of fire growth, flashover, EMS response needs, special service needs, response times, on-scene operations, problem-solving critical tasks, and the determined effective response force for the community served.

Fire Benchmark Performance Objective:

For all fire incidents, La Crosse Fire Department shall arrive in a timely manner with sufficient resources to stop the escalation of the fire and keep the fire to the area of involvement upon arrival. Initial response resources shall be capable of containing the fire, rescuing at-risk victims, and performing salvage operations, while providing for the safety of the responders and general public.

- **Distribution Performance Measure for all Structure Fires:** The first due pumper (Engine or Quint) in the first due area staffed with a minimum of three personnel shall arrive within 6 minutes and 20 seconds total response time, for 90% of all requests for emergency services.
- **Concentration Performance Measure for Fire – Low:** Requires second pumper (Engine or Quint) staffed with a minimum of three personnel and shall arrive within 10 minutes and 20 seconds total response time for 90% of all requests for emergency service. Remaining units including Battalion Chief and rescue apparatus, for a minimum of 12 personnel in total shall arrive within 10 minutes and 20 seconds total response time for 90% of all requests for emergency services. A minimum of 12 personnel is required.
- **Concentration Performance Measure for Fire – Moderate:** Requires second pumper (Engine or Quint) staffed with a minimum of three personnel shall arrive within 10 minutes 20 seconds total response time for 90% of all requests for emergency service. Remaining units which may include a third pumper (Engine or Quint), Battalion Chief, and rescue apparatus for a total of 14 personnel, shall arrive in 10 minutes 20 seconds

total response time for 90% of all requests for emergency services. A minimum of 14 personnel is required.

- **Concentration Performance Measure for Fire – High:** Requires second pumper (Engine or Quint) staffed with a minimum of three personnel and shall arrive within 10 minutes 20 seconds total response time for 90% of all requests for emergency service. Remaining units which may include a fourth pumper (Engine or Quint), Battalion Chief, and rescue apparatus for a minimum of 18 personnel, shall arrive in 12 minutes 20 seconds total response time for 90% of all requests for emergency services. A minimum of 18 personnel is required.

Actual Baseline Fire Service Level Performance from 2013 through 2017:

TBD and built out with aggregate numbers. Year by year data is available as part of the agency's ACR

EMS Benchmark Performance Objective:

For all emergency medical incidents, La Crosse Fire Department shall arrive in a timely manner with sufficiently trained and equipped personnel to provide medical services. They will stabilize the situation, provide care and support to the victim and/or reduce, reverse, or eliminate the conditions that have caused the emergency.

- **Distribution Performance Measure for all EMS:** The first due apparatus (Engine, Quint, or Rescue) in the first due area, with Basic Life Support (BLS) and defibrillation capabilities; staffed with a minimum of two personnel shall arrive within 6 minutes total response time for 90% of all requests for emergency services. A minimum of 2 personnel is required.
- **Concentration Performance Measure for EMS – Low:** Same as distribution performance measures.
- **Concentration Performance Measure for EMS – Moderate:** The second apparatus (Engine, Quint, or Rescue) with Basic Life Support (BLS) and defibrillation capabilities, staffed with a minimum of two personnel shall arrive within 6 minutes total response time for 90% of all requests for emergency service. Any further requested units; including a third apparatus (Engine, Quint, or Rescue) with Basic Life Support (BLS) and defibrillation capabilities, shall arrive in 8 minutes total response time, for 90% of all requests for emergency services. A minimum of 4 personnel is required.
- **Concentration Performance Measure for EMS – High:** The second apparatus (Engine or Quint) with Basic Life Support (BLS) and defibrillation capabilities, staffed with a minimum of three personnel shall arrive within 8 minutes total response time for 90% of all requests for emergency service. Any further requested units; including a third apparatus (Engine, Quint, or Rescue) with Basic Life Support (BLS) and defibrillation capabilities, shall arrive in 8 minutes total response time, for 90% of all requests for emergency services. A minimum of 5 personnel is required.

Rescue Performance Objective:

For all incidents where rescue of victims is required (Elevators, Water, Ice, Technical (Urban Search and Rescue - USAR), La Crosse Fire Department shall arrive in a timely manner with sufficient resources to stabilize the situation and remove the victim(s) from the emergency situation or location without causing further harm to the victim, responders, public or the environment.

- **Distribution Performance Measure for all Rescues:** The first due apparatus (Engine, Quint, USAR, or Boat) in the first due area (with rescue equipment); staffed with a minimum of 3 personnel shall arrive within 6 minutes and 20 seconds total response time for 90% of all requests for emergency services. A minimum of 3 personnel is required.
- **Concentration Performance Measure for Rescue – Low (Elevator):** Same as distribution performance measure.
- **Concentration Performance Measure for Rescue – Moderate:** Requires that the Battalion Chief and the apparatus needed to meet the needs of the response, with the appropriate rescue equipment, for a minimum of 14 personnel; shall arrive within 10 minutes 20 seconds total response time, for 90% of all requests for emergency service. A minimum of 14 personnel is required.
- **Concentration Performance Measure for Rescue – High:** In addition to what is already present for equipment and staffing for the above **Moderate** incident, it may be necessary to request all, or part, of the remaining off-duty USAR or Water Team members. A minimum of 18 personnel shall arrive within 14 minutes and 20 seconds total response time, for 90% of all requests for emergency service.

**The response time goal for a call-back of off duty USAR or Water Team members to respond to a rescue incident is 60 minutes, for 90% of all requests for emergency service.*

Hazardous Materials/Special Hazards Objectives:

For all hazardous materials/special hazards (spills, leaks, odors, carbon monoxide complaint), La Crosse Fire Department shall arrive in a timely manner with sufficiently trained and equipped personnel to secure, assess, contain, and/or mitigate hazardous incidents. Where applicable, an action plan for the successful conclusion of the incident while providing for the safety and security of the responders, public and the environment will be established.

- **Distribution Performance Measure for all Hazardous Incidents:** The first due apparatus (Engine or Quint) in the first due area staffed with a minimum of three personnel shall arrive within 6 minutes and 20 seconds total response time for 90% of all requests for emergency services. A minimum of 3 personnel is required.
- **Concentration Performance Measure for Hazardous Incident – Low (Vehicle Leaking Fuel, Carbon Monoxide Complaint):** Same as distribution performance measure.
- **Concentration Performance Measure for hazardous Incident – Moderate:** Requires that the Battalion Chief and the apparatus needed to meet the needs of the response, with the appropriate hazardous materials equipment, for a minimum of 17 personnel (of which 4 will be trained to the technician level); shall arrive within 10 minutes 20 seconds total response time, for 90% of all requests for emergency service. A minimum of 17 personnel is required.
- **Concentration Performance Measure for Hazardous Incident – High:** In addition to what is already present for equipment and staffing for the above **Moderate** incident, it may be necessary to request all, or part, of the remaining off-duty Hazmat Technician Team (for a possible total of 25 technicians). A minimum of 24 personnel shall arrive within 16 minutes and 20 seconds total response time, for 90% of all requests for emergency service.

**The response time goal for a call-back of off duty Hazardous Materials Technicians to respond to a hazardous materials/special hazard incident is 90 minutes, for 90% of all requests for emergency service as required by the State of Wisconsin.*

Report Out Performance Objective:

For all emergency report out incidents (bomb threats, power line complaints, odor complaints, water complaints, and airport stand by), La Crosse Fire Department shall arrive in a timely manner with sufficiently trained and equipped personnel to provide services. They will stabilize the situation, provide care and support to the victim and/or reduce, reverse, or eliminate the conditions that have caused the emergency.

Availability

Availability is the amount of time a unit is available to respond to an emergency within its own service area/district.

Reliability

See Appendix D and J, planning zone map and planning zone analysis, for all emergency call data from 2013 through 2017.

Reliability is the ability of a unit to perform and maintain its functions in routine circumstances. Reliability is measured as the number of calls for service, in relationship to the total number of serviced calls that the fire units performed within the system adopted timeframes (performance measures).

The system analysis included the agencies established first due baseline performance measure of 6 minutes, 20 seconds at the 90th percentile for all emergency type responses in the following five categories (emergency fire, emergency medical, emergency rescue, emergency hazardous materials, and emergency report outs). This is the total response time from receipt of call to the first unit on scene. The comparisons shown in the following table depicts first due workload from 2013 through 2017, by station (all responses), first due unit responses in the first due district, and calls missed by the first due unit. Calls may have been missed due to concurrent calls, training, maintenance, etc. The table also shows the percentage of calls answered by the first due unit in its first due response district, the percentage of any first due unit meeting response standards in any response district, and the percentage of first due units meeting response standards in its own response district.



La Crosse Fire Department

726 5th Ave South, La Crosse, WI 54601
http://www.cityoflacrosse.org

(608) 789-7260 Fax (608) 789-7276
Gilliamk@cityoflacrosse.org

Serving La Crosse and Southwestern Wisconsin Quality Emergency Services Since 1896



Availability vs. Reliability

2013-2017

Fire Station/District	FS-1	FS-2	FS-3	FS-4
First-Due Workload(All Responses)	11,520	4,766	7,011	3,801
(Any First Due Unit)				
First Due Unit Responses in	10,344	4,415	6,647	3,318
Calls Missed by First Due	1,176	351	346	483
Availability– First-Due Unit in	89.79%	92.63%	94.80%	87.29%
Reliability-Any First Due Unit (<=6:20sec)	93.06%	91.51%	76.08%	77.32%
(Emergency Response Only)				
Reliability-First Due Unit (<=6:20 sec)	94.11%	91.86%	76.36%	79.62%
(Emergency Response Only)				
Reliability is based on the established 6:20 second for first unit standard				

The chart above shows the availability vs. reliability for the years 2013 through 2017

Availability and Reliability Analysis

Station 1 houses multiple apparatus (Quint 1, Engine 1, Rescue 1 and Battalion 1) and had an availability level of (89.79%). Station 2 houses multiple apparatus (Quint 2 and Rescue 2) and had an availability level of 92.63%. Station 3 houses multiple apparatus (Quint 3 and Rescue 3) and had an availability level of 94.80%. Station 4 is a single house (Engine 4) and had an availability level of 87.29%.

Station 1 had availability of (89.79%), yet had adequate reliability (93.06%). Station 1 had the highest call volume (11,520 calls) with four frontline apparatus. Station 1's reliability was assisted by Station 2 to the north and Station 3 to the south. Station 4 had the lowest call volume (3,801 calls), and also had the 2nd lowest reliability (77.32%). Station 3 had the second highest call volume (7,011 calls) and with two frontline apparatus and automatic move ups from station 1, had a reliability level of 76.08 %. Station 3 and Station 4's reliability were hurt because they only had one station nearest to each of them and large response districts.

Stop-Loss Points and Resources Exhaustion

Stop-loss point is the resource level an agency will not go below when asked for assistance or mutual aid. In any organization there will be a specific number of initial attack resources. For example, an agency may have six fire emergency response vehicles. The agency may also have reserve vehicles staffed by recalling personnel. An example of the stop-loss policy is “Every Town Fire Department will commit up to 50% of its resources to respond on mutual aid or automatic aid emergencies. Once this level is committed, the agency will no longer respond to requests until reserves are placed in service, or upon approval of the chief or designate.” Setting stop-loss points prevents the agency from facing a situation where an emergency occurs within the jurisdiction and its resources are totally out of position.

Resources exhaustion is when a system has depleted its resources for both initial response and an area-wide effective response force. In the City of La Crosse this would be when all agency units were committed.

In an effort to ensure the agency’s resources will not be depleted it has established the following criteria:

- **Stop-loss point**
 - For mutual aid the agency will normally send a water tender and/or an Engine/Quint. Other specialized vehicle(s) may be sent in place of the tender or Quint upon request.
 - The agency will normally not commit resources beyond the point of having only two remaining Quints within the City.
- **Resource exhaustion**
 - A Call-back (request for off-duty staff) will be initiated when additional staffing beyond the on-duty staffing and equipment capabilities is necessary to mitigate an effective response. This would normally occur when all on-duty resources have been depleted, or when specialized resources (i.e. hazmat technicians, USAR, water rescue) are required.

- Requests for mutual aid from participating mutual aid communities will be initiated by the agency when all available resources have been utilized and are expected to be required for an extended period of time.
- **Authorization**
 - The decision to initiate and/or alter a stop-loss point or resource exhaustion point normally lies at the discretion of the Incident Commander/Battalion Chief; through consultation with the Assistant Chief and/or the Chief

Comparability

It is important to compare the performance of the agency to other agencies of similar size. See Appendix I for comparable city data.

The data in Appendix I is from a recent La Crosse Common Council “Fire Department Management and Operations Review Committee” study that compared La Crosse to 34 cities in Wisconsin. The data compares population, square miles, number of fire stations, authorized firefighters, firefighters/1000 population, budget, and expenditures per capita. The study also compared services offered, equipment, response volume, property loss data, response times, building inspection data, city housing data, and agency community programs.

Significant findings listed in the study are as follows:

- La Crosse Fire Department ranked 9 out of 34 departments based upon cost per capita
- La Crosse Fire Department is one of two departments that does not have an ambulance service of the reporting agencies
- The City of La Crosse ranked 2 out of the 34 cities in percent of individuals living below the poverty line
- 49% of the housing stock in the City of La Crosse is rental property
- La Crosse Fire Department has one of the best overall response times of the reporting agencies
- La Crosse Fire Department community programming is at par or slightly above other fire departments in the state

The agency also compared Insurance Service Organization (ISO) ratings in Appendix I. The agency has a Level 2 ISO rating.

Effective Response Force (ERF) for structure fire with low risk occupancy: Example is a detached garage.

Representative Tasks

Rescue and Subsequent Fire Control	Firefighter Tasks	Number of Firefighters
Size-up, Incident Command, Accountability	Incident Command assumed by Battalion Chief	1
Attack Line	Establish a pre-connect hose line for initial firefighting, search & rescue	2
	First arriving officer to supervise interior operations once command assumed by Battalion Chief	1
Establish Water Supply	Water supply hook-up to hydrant with 5 inch hose	1
	Establish 5 inch water supply into first arriving pumper	1
Rescue	Search & rescue with additional back-up pre-connect hose	2
Rapid Intervention Team	On standby should firefighter rescue be required	2
Exposures, Utilities, Ventilation	Establish additional hose line if required to protect exposures and/or shut down utilities (e.g. natural gas). Provide ventilation as required	2 * assisted by water supply team
Total		12

Effective Response Force (ERF) for structure fire with moderate risk occupancy: Example is a typical single family dwelling.

Representative Tasks

The following table depicts LCFD's likely critical tasks for a moderate risk structure fire with a hydrant water supply, and concludes with an Effective Response Force (ERF) of 14 personnel.

Rescue and Subsequent Fire Control	Firefighter Tasks	Number of Firefighters
Size-up, Incident Command, Accountability	Incident Command assumed by Battalion Chief	1
Attack Line	Establish a pre-connect hose line for initial firefighting, search & rescue	2
	First arriving officer to supervise interior operations once command assumed by Battalion Chief	1
Establish Water Supply	Water supply hook-up to hydrant with 5 inch hose	1
	Establish 5 inch water supply into first arriving pumper	1
Rescue	Search & Rescue with additional back-up pre-connect	2
Rapid Intervention Team	On standby should firefighter rescue be required	2
Exposures, Utilities, Ventilation	Establish additional hose line if required to protect exposures and/or shut down utilities (e.g. natural gas). Provide ventilation as needed	2 * assisted by water supply team
Confinement	Secondary search & rescue and fire attack operations with back up hose lines.	2
Total		14

Effective Response Force (ERF) for structure fire with high risk occupancy: Example is a large commercial or industrial property.

Representative Tasks

The following table depicts LCFD's likely critical tasks for a high risk structure fire with a hydrant water supply, and concludes with an Effective Response Force (ERF) of 18 personnel.

Rescue and Subsequent Fire Control	Firefighter Tasks	Number of Firefighters
Size-up, Incident Command, Accountability	Incident Command assumed by Battalion Chief	1
Attack Line	Establish a pre-connect hose line for initial firefighting, search & rescue	2
	First arriving officer to supervise interior operations once command assumed by Battalion Chief	1
Establish Water Supply	Water supply hook-up to hydrant with 5 inch hose	1
	Establish 5 inch water supply into first arriving pumper	1
Rescue	Search & Rescue with additional back-up pre-connect	2
Rapid Intervention Team	On standby should firefighter rescue be required	2
Exposures, Utilities, Ventilation	Establish additional hose line if required to protect exposures and/or shut down utilities (e.g. natural gas). Provide ventilation as needed	2 * assisted by water supply team
Confinement	Additional search & rescue and fire attack operations with back up hose lines	6
Total		18

Effective Response Force (ERF) for an EMS response in the low category: Example is typical first responder response.

EMS	Firefighter Tasks	Number of Firefighters
Deliver patient care	Provide emergency medical services care at the EMT level with appropriate medical equipment	2
Total		2

Effective Response Force (ERF) for an EMS response in the moderate category: Example is a first responder code (pulseless non breathing patient).

EMS	Firefighter Tasks	Number of Firefighters
Deliver patient care	Provide emergency medical services care at the EMT level with appropriate medical equipment: including CPR and defibrillation	4
Total		4

Effective Response Force (ERF) for an EMS response in the high category: Example is a vehicle accident with injuries.

EMS	Firefighter Tasks	Number of Firefighters
Deliver Patient Care	Provide emergency medical services care at the EMT level with appropriate medical equipment	3
Conduct Vehicle Extrication	Provide vehicle extrication with the appropriate extrication equipment	2
Total		5

Effective Response Force (ERF) for a rescue response in the low category: Example is a person trapped in an elevator.

Rescue	Firefighter Tasks	Number of Firefighters
Conduct Rescue Operations	Provide rescue services with the appropriate rescue equipment	3
Total		3

Effective Response Force (ERF) for a rescue response in the moderate category: Example is a typical water rescue or technical rescue response with a single victim.

Rescue	Firefighter Tasks	Number of Firefighters
Size-up, Incident Command, Accountability	Incident Command assumed by Battalion Chief	1
Operations Officer	Establish an operations officer to run the operations of the incident	1
Conduct Rescue Operations	Provide rescue services with the appropriate equipment (boats, rapid deployment crafts, technical rescue equipment) for a single victim rescue or a small scale incident	10
Support/Safety	Provide support (rescue back up team) and safety officer	2
Total		14

Effective Response Force (ERF) for a rescue response in the high category: Example is a water rescue or technical rescue response with multiple victims.

Rescue	Firefighter Tasks	Number of Firefighters
Size-up, Incident Command, Accountability	Incident Command assumed by Battalion Chief	1
Operations Officer	Establish an operations officer to run the operations of the incident	1
Conduct Rescue Operations	Provide rescue services with the appropriate equipment (boats, rapid deployment crafts, technical rescue equipment) to rescue multiple victims or a large scale incident	14
Support/Safety	Provide support (rescue back up team) and safety officer	2
Total		18

**Effective Response Force (ERF) for a hazardous materials response in the low category:
Example is a vehicle leaking fuel or a carbon monoxide alarm investigation.**

Hazardous Materials	Firefighter Tasks	Number of Firefighters
Conduct Hazardous Materials Operations	Provide hazardous materials services with the appropriate rescue equipment	3
Total		3

Effective Response Force (ERF) for a hazardous materials response in the moderate category: Example is a spill or leak mitigation or a single victim rescue.

Hazardous Materials	Firefighter Tasks	Number of Firefighters
Size-up, Incident Command, Accountability	Incident Command assumed by Battalion Chief	1
Operations Officer	Establish an operations officer to run the operations of the incident	1
Conduct Hazardous Materials Operations (identify, monitor, sample, evacuate, rescue, decontaminate)	Provide hazardous materials services with the appropriate equipment (entry team, back up entry team, decon, research, medical support) for a single victim rescue or a small scale incident	13
Liaison/Safety	Provide support services and a safety officer	2
Total		17

**Effective Response Force (ERF) for a hazardous materials response in the high category:
Example is a large spill or leak investigation or a multiple victim rescue.**

Hazardous Materials	Firefighter Tasks	Number of Firefighters
Size-up, Incident Command, Accountability	Incident Command assumed by Battalion Chief	1
Operations Officer	Establish an operations officer to run the operations of the incident	1
Conduct Hazardous Materials Operations (identify, monitor, sample, evacuate, rescue, decontaminate)	Provide hazardous materials services with the appropriate equipment (entry team, back up entry team, decon, research, medical support) for a multiple victim rescue or a large scale incident	20
Liaison/Safety	Provide support services and a safety officer	2
Total		24

Effective Response Force (ERF) for an emergency report out in the low category: Example is a power line complaint or water complaint.

Report Out	Firefighter Tasks	Number of Firefighters
Mitigate Incident	Provide services with the appropriate equipment to mitigate the incident (investigate and mitigate complaint)	3
Total		3

Effective Response Force (ERF) for an emergency report out in the moderate category: Example is an odor complaint.

Report Out	Firefighter Tasks	Number of Firefighters
Mitigate Incident	Provide services with the appropriate equipment to mitigate the incident investigate and mitigate complaint)	4
Total		4

Effective Response Force (ERF) for an emergency report out in the high category: Example is a bomb threat or airport stand-by.

Report Out	Firefighter Tasks	Number of Firefighters
Size-up, Incident Command, Accountability	Incident Command assumed by Battalion Chief	1
Mitigate Incident	Provide services with the appropriate equipment to mitigate the incident (investigate and secure area)	7
Total		8

The Following pages contain response data collected from 2013-2017 that are categorized in the High Risk Category and include the Effective Response Force response.

Fire Suppression - 90th Percentile Times			2013 - 2017	2017	2016	2015	2014	2013	Benchmark
Alarm Handling	Pick-up to Dispatch	URBAN	01:06	00:41	00:51	00:53	01:01	01:22	01:00
Turnout Time	Turnout Time 1st Unit	URBAN	01:34	01:30	01:40	01:12	00:54	01:32	01:20
Travel Time	Travel Time 1st Unit Distribution	URBAN	04:43	04:41	03:37	03:36	04:32	07:17	04:00
	Travel Time ERF Concentration	URBAN	40:08	42:33	46:31	18:57	25:34	42:45	08:00
Total Response Time	Total Response Time 1st Unit Distribution	URBAN	05:19	05:02	04:13	04:15	05:04	07:38	05:20
			<i>n = 46</i>	<i>n = 8</i>	<i>n = 11</i>	<i>n = 7</i>	<i>n = 11</i>	<i>n = 9</i>	
	Total Response Time ERF Concentration	URBAN	41:15	43:16	47:43	20:22	26:11	43:25	09:20
			<i>n = 46</i>	<i>n = 8</i>	<i>n = 11</i>	<i>n = 7</i>	<i>n = 11</i>	<i>n = 9</i>	

EMS - 90th Percentile Times			2013 - 2017	2017	2016	2015	2014	2013	Benchmark
Alarm Handling	Pick-up to Dispatch	URBAN	01:24	01:24	01:18	01:18	01:24	01:34	01:00
Turnout Time	Turnout Time 1st Unit	URBAN	01:38	01:44	01:39	01:32	01:34	01:35	01:00
Travel Time	Travel Time 1st Unit Distribution	URBAN	04:53	04:31	05:05	04:47	05:08	04:35	08:00
	Travel Time ERF Concentration	URBAN	08:07	08:44	07:20	08:19	08:18	07:41	08:00
Total Response Time	Total Response Time 1st Unit Distribution	URBAN	05:58	05:54	06:19	05:42	06:24	05:56	09:00
			<i>n = 1,232</i>	<i>n = 266</i>	<i>n = 278</i>	<i>n = 222</i>	<i>n = 223</i>	<i>n = 243</i>	
	Total Response Time ERF Concentration	URBAN	10:08	11:25	09:25	09:46	10:28	09:56	09:00
			<i>n = 1,232</i>	<i>n = 266</i>	<i>n = 278</i>	<i>n = 222</i>	<i>n = 223</i>	<i>n = 243</i>	

Water Rescue - 90th Percentile Times			2013 - 2017	2017	2015	Benchmark
Alarm Handling	Pick-up to Dispatch	URBAN	00:26	00:28	00:00	01:00
Turnout Time	Turnout Time 1st Unit	URBAN	01:04	00:13	01:25	01:20
Travel Time	Travel Time 1st Unit Distribution	URBAN	04:39	04:39	02:27	04:00
	Travel Time ERF Concentration	URBAN	04:39	04:39	02:27	08:00
Total Response Time	Total Response Time 1st Unit Distribution	URBAN	04:39	04:39	02:27	05:20
			<i>n = 4</i>	<i>n = 3</i>	<i>n = 1</i>	
	Total Response Time ERF Concentration	URBAN	04:39	04:39	02:27	09:20
			<i>n =</i>	<i>n =</i>	<i>n =</i>	

Public Assist - 90th Percentile Times			2013 - 2017	2017	2016	2015	2014	2013	Benchmark
Alarm Handling	Pick-up to Dispatch	URBAN	01:36	00:59	02:04	01:33	01:36	01:38	02:00
Turnout Time	Turnout Time 1st Unit	URBAN	01:31	01:58	01:19	01:27	01:27	01:11	02:00
Travel Time	Travel Time 1st Unit Distribution	URBAN	04:42	07:07	03:28	03:20	03:33	03:32	08:00
	Travel Time ERF Concentration	URBAN	04:42	07:07	03:28	03:20	03:33	03:32	08:00
Total Response Time	Total Response Time 1st Unit Distribution	URBAN	04:42	07:07	03:28	03:20	03:33	03:32	05:20
			<i>n = 45</i>	<i>n = 8</i>	<i>n = 5</i>	<i>n = 11</i>	<i>n = 13</i>	<i>n = 8</i>	
	Total Response Time ERF Concentration	URBAN	04:42	07:07	03:28	03:20	03:33	03:32	09:20
			<i>n = 45</i>	<i>n = 8</i>	<i>n = 5</i>	<i>n = 11</i>	<i>n = 13</i>	<i>n = 8</i>	

Good Intent - 90th Percentile Times			2013 - 2017	2017	2016	2015	2014	2013	Benchmark
Alarm Handling	Pick-up to Dispatch	URBAN	01:58	01:57	02:15	01:36	01:55	02:27	02:00
Turnout Time	Turnout Time 1st Unit	URBAN	01:27	01:28	01:27	01:29	01:22	01:24	02:00
Travel Time	Travel Time 1st Unit Distribution	URBAN	04:33	05:34	04:53	03:56	03:32	03:28	08:00
	Travel Time ERF Concentration	URBAN	04:33	05:34	04:53	03:56	03:32	03:28	08:00
Total Response Time	Total Response Time 1st Unit Distribution	URBAN	04:33	05:34	04:53	03:56	03:32	03:28	08:00
			<i>n = 168</i>	<i>n = 42</i>	<i>n = 28</i>	<i>n = 36</i>	<i>n = 32</i>	<i>n = 30</i>	
	Total Response Time ERF Concentration	URBAN	04:33	05:34	04:53	03:56	03:32	03:28	09:20
			<i>n =</i>	<i>n =</i>	<i>n =</i>	<i>n =</i>	<i>n =</i>	<i>n =</i>	

False Alarms - 90th Percentile Times			2013 - 2017	2017	2016	2015	2014	2013	Benchmark
Alarm Handling	Pick-up to Dispatch	URBAN	01:27	01:32	01:16	01:29	01:24	01:34	02:00
Turnout Time	Turnout Time 1st Unit	URBAN	01:31	01:36	01:33	01:33	01:23	01:27	02:00
Travel Time	Travel Time 1st Unit Distribution	URBAN	04:41	05:02	04:46	04:33	04:11	04:17	08:00
	Travel Time ERF Concentration	URBAN	04:41	05:02	04:46	04:33	04:11	04:17	08:00
Total Response Time	Total Response Time 1st Unit Distribution	URBAN	04:41	05:02	04:46	04:33	04:11	04:17	08:00
			<i>n = 1,098</i>	<i>n = 208</i>	<i>n = 231</i>	<i>n = 215</i>	<i>n = 238</i>	<i>n = 206</i>	
	Total Response Time ERF Concentration	URBAN	04:41	05:02	04:46	04:33	04:11	04:17	09:20
			<i>n =</i>	<i>n =</i>	<i>n =</i>	<i>n =</i>	<i>n =</i>	<i>n =</i>	

The Following pages contain response data collected from 2013-2017 that are categorized in the Moderate Risk Category and include the Effective Response Force response.

Fire Suppression - 90th Percentile Times			2013 - 2017	2017	2016	2015	2014	2013	Benchmark
Alarm Handling	Pick-up to Dispatch	URBAN	01:11	00:54	01:16	01:14	01:12	01:01	01:00
Turnout Time	Turnout Time 1st Unit	URBAN	01:36	01:42	01:33	01:36	01:22	01:15	01:20
Travel Time	Travel Time 1st Unit Distribution	URBAN	04:49	04:53	04:15	04:53	05:00	03:58	04:00
	Travel Time ERF Concentration	URBAN	09:42	11:35	09:34	07:59	09:29	08:23	08:00
Total Response Time	Total Response Time 1st Unit Distribution	URBAN	05:28	05:26	05:11	05:57	05:55	04:47	05:20
			<i>n = 179</i>	<i>n = 38</i>	<i>n = 36</i>	<i>n = 36</i>	<i>n = 30</i>	<i>n = 39</i>	
	Total Response Time ERF Concentration	URBAN	11:36	13:35	11:33	10:20	11:41	09:38	09:20
			<i>n = 179</i>	<i>n = 38</i>	<i>n = 36</i>	<i>n = 36</i>	<i>n = 30</i>	<i>n = 39</i>	

Haz Mat - 90th Percentile Times			2013 - 2017	2017	2016	2015	2014	2013	Benchmark
Alarm Handling	Pick-up to Dispatch	URBAN	01:24	00:30	01:28	01:22	01:04	01:08	01:00
Turnout Time	Turnout Time 1st Unit	URBAN	01:10	00:34	01:06	01:05	01:15	00:53	01:20
Travel Time	Travel Time 1st Unit Distribution	URBAN	03:53	04:17	03:27	01:15	03:38	02:36	04:00
	Travel Time ERF Concentration	URBAN	20:15	05:57	09:39	05:57	22:25	07:59	08:00
Total Response Time	Total Response Time 1st Unit Distribution	URBAN	04:31	04:29	04:15	02:20	04:40	03:29	05:20
			<i>n = 11</i>	<i>n = 2</i>	<i>n = 4</i>	<i>n = 1</i>	<i>n = 3</i>	<i>n = 1</i>	
	Total Response Time ERF Concentration	URBAN	22:52	06:56	11:52	08:24	23:54	10:00	09:20
			<i>n = 11</i>	<i>n = 2</i>	<i>n = 4</i>	<i>n = 1</i>	<i>n = 3</i>	<i>n = 1</i>	

EMS - 90th Percentile Times			2013 - 2017	2017	2016	2015	2014	2013	Benchmark
Alarm Handling	Pick-up to Dispatch	URBAN	01:31	01:26	01:31	01:30	01:27	01:38	01:00
Turnout Time	Turnout Time 1st Unit	URBAN	01:39	01:47	01:42	01:35	01:27	01:38	01:00
Travel Time	Travel Time 1st Unit Distribution	URBAN	04:56	05:10	04:29	05:04	04:53	04:59	08:00
	Travel Time ERF Concentration	URBAN	04:59	05:10	04:29	05:05	04:57	05:00	08:00
Total Response Time	Total Response Time 1st Unit Distribution	URBAN	05:57	06:14	05:45	05:56	05:47	05:53	09:00
			<i>n = 4,480</i>	<i>n = 970</i>	<i>n = 892</i>	<i>n = 895</i>	<i>n = 880</i>	<i>n = 843</i>	
	Total Response Time ERF Concentration	URBAN	06:57	07:14	06:47	06:56	06:51	06:53	09:00
			<i>n = 4,480</i>	<i>n = 970</i>	<i>n = 892</i>	<i>n = 895</i>	<i>n = 880</i>	<i>n = 843</i>	

Technical Rescue - 90th Percentile Times			2013 - 2017	2015	Benchmark
Alarm Handling	Pick-up to Dispatch	URBAN	00:00	00:00	01:00
Turnout Time	Turnout Time 1st Unit	URBAN	00:00	00:00	01:20
Travel Time	Travel Time 1st Unit Distribution	URBAN	10:21	10:21	04:00
	Travel Time ERF Concentration	URBAN	10:21	10:21	08:00
Total Response Time	Total Response Time 1st Unit Distribution	URBAN	10:21	10:21	05:20
			<i>n = 1</i>	<i>n = 1</i>	
	Total Response Time ERF Concentration	URBAN	10:21	10:21	09:20
			<i>n = 1</i>	<i>n = 1</i>	

Public Assist - 90th Percentile Times			2013 - 2017	2017	2016	2015	2014	2013	Benchmark
Alarm Handling	Pick-up to Dispatch	URBAN	03:16	03:55	03:46	02:40	02:39	02:24	02:00
Turnout Time	Turnout Time 1st Unit	URBAN	01:59	02:15	02:04	02:04	01:37	01:50	02:00
Travel Time	Travel Time 1st Unit Distribution	URBAN	05:54	06:15	06:05	05:52	05:08	05:23	08:00
	Travel Time ERF Concentration	URBAN	05:54	06:15	06:05	05:52	05:08	05:23	08:00
Total Response Time	Total Response Time 1st Unit Distribution	URBAN	05:54	06:15	06:05	05:52	05:08	05:23	05:20
			<i>n = 756</i>	<i>n = 194</i>	<i>n = 212</i>	<i>n = 153</i>	<i>n = 124</i>	<i>n = 73</i>	
	Total Response Time ERF Concentration	URBAN	05:54	06:15	06:05	05:52	05:08	05:23	09:20
			<i>n = 756</i>	<i>n = 194</i>	<i>n = 212</i>	<i>n = 153</i>	<i>n = 124</i>	<i>n = 73</i>	

Good Intent - 90th Percentile Times			2013 - 2017	2017	2016	2015	2014	2013	Benchmark
Alarm Handling	Pick-up to Dispatch	URBAN	02:14	01:58	02:33	01:49	02:33	02:04	02:00
Turnout Time	Turnout Time 1st Unit	URBAN	01:53	01:57	02:00	01:55	01:32	01:59	02:00
Travel Time	Travel Time 1st Unit Distribution	URBAN	05:14	05:14	05:50	06:08	04:30	04:23	08:00
	Travel Time ERF Concentration	URBAN	05:14	05:14	05:50	06:08	04:30	04:23	08:00
Total Response Time	Total Response Time 1st Unit Distribution	URBAN	05:14	05:14	05:50	06:08	04:30	04:23	08:00
			<i>n = 347</i>	<i>n = 88</i>	<i>n = 81</i>	<i>n = 57</i>	<i>n = 75</i>	<i>n = 46</i>	
	Total Response Time ERF Concentration	URBAN	05:14	05:14	05:50	06:08	04:30	04:23	09:20
			<i>n =</i>	<i>n =</i>	<i>n =</i>	<i>n =</i>	<i>n =</i>	<i>n =</i>	

False Alarms - 90th Percentile Times			2013 - 2017	2017	2016	2015	2014	2013	Benchmark
Alarm Handling	Pick-up to Dispatch	URBAN	01:37	01:31	01:42	01:36	01:31	01:46	02:00
Turnout Time	Turnout Time 1st Unit	URBAN	01:33	01:33	01:48	01:33	01:31	01:18	02:00
Travel Time	Travel Time 1st Unit Distribution	URBAN	06:37	07:48	06:14	06:22	06:28	06:35	08:00
	Travel Time ERF Concentration	URBAN	06:37	07:48	06:14	06:22	06:28	06:35	08:00
Total Response Time	Total Response Time 1st Unit Distribution	URBAN	06:37	07:48	06:14	06:22	06:28	06:35	08:00
			<i>n = 674</i>	<i>n = 129</i>	<i>n = 138</i>	<i>n = 137</i>	<i>n = 149</i>	<i>n = 121</i>	
	Total Response Time ERF Concentration	URBAN	06:37	07:48	06:14	06:22	06:28	06:35	09:20
			<i>n =</i>	<i>n =</i>	<i>n =</i>	<i>n =</i>	<i>n =</i>	<i>n =</i>	

Demand Planning Zone Evaluation

All emergency incident types from the beginning of 2013 to end of 2017 were evaluated in each of the forty seven planning zones. The focus was to determine what zones posed the greatest number of emergency responses that were outside of the established benchmark of 6 minutes 20 seconds. The agency recorded emergency 90th percentile total response times of the first arriving unit in the forty seven planning zones. See Appendix D and J for the results of this demand zone evaluation.

Observations:

Fringe areas of the city have worse total response times than the core areas of the city (which is to be expected as fire station locations are in the core areas of the city). In most cases the fringe planning zones only contain a small portion of the city. Some fringe areas of the city have little to no request for agency services (for example; A3, B1, B9, C1, C2, E12, F6, F7, F9, F10, F12, G2, G3, and G4). Some fringe areas of the city have a small number of requests for agency services (for example; B2, B3, B5, B6, B8, C3, E3, E4, E5, F3, F4, F5, and F11). The bottom line is that the agency has poor total response times to the fringe areas of the city, but the call volume is low to these areas.

Total response times meet agency benchmarks in the core areas of the city, where agency fire stations are located (C5, C6, C7, and D8), and in close proximity to agency fire stations (planning zones surrounding C5, C6, C7, and D8).

The areas of greatest concern are where the agency has a higher call volume, but does not meet total response time benchmarks. These areas are mainly in the southeast portion of the city (for example; D9, D10, E9, E10, E11). Several of these areas require agency apparatus to travel via the State Road Overhead (Overpass) to avoid north/south train tracks which dissect the city from east to west. Station 3 apparatus use the State Road Overhead whenever they have an emergency response east of the train track, which slows response times, but ensures the arrival of apparatus versus being totally delayed by a train.

Compliance Methodology

Introduction

The purpose of this section is to determine the how, when, and what will be measured to ensure the Standards of Cover is valid and continues to provide the appropriate direction for the strategic planning process.

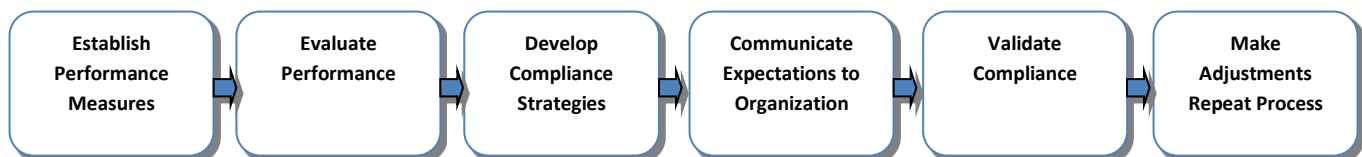
Compliance methodology requires that the service level objectives and performance measures are evaluated and efforts are made to reach or maintain the established levels.

The overall responsibility for the agency's ongoing efforts to provide analysis and evaluation of the adopted Standards of Cover has been assigned to the Captain of Administration that serves as the accreditation manager. Assistance will be provided by the agency's management staff, computer trainers, and other assigned designates in accordance with their established responsibility and work-plans.

The agency will continue to use Zoll Fire Records Management (RMS) system and is in the process of adding First Watch to measure response in real time for future analysis and evaluation of the Standards of Cover. The agency has also added Lexipol to assist in policy KMS and Target Solutions for training and certification tracking.

Compliance Model

The following compliance model is utilized to demonstrate the entire six-step systematic approach that will be taken on an annual basis. Certain components within the full model may be conducted more frequently (quarterly or bi-annually) to account for any unforeseen system variables



Strategic Plan

The agency will complete its Strategic Plan for 2019-2023 at the end of 2018. This plan will include analysis and strategic objectives and initiatives. This SOC document's conclusion and recommendations will include information from the Strategic Plan in addition to data analysis completed in the SOC.

See 2019 – 2023 Strategic Plan.

Conclusions/Recommendations

The agency has experienced success during the time period since the development of its first Standards of Cover document and the focus it brought to quality improvement. With a new Fire Chief, new senior management structure, new Accreditation Manager, and many other departmental leadership roles that have new members in place, the agency has a renewed focus on quality improvement data and goals. A summary of recommendations are as follows in no particular order of importance:

1. The agency is upgrading its data analysis software to the First Watch data management platform in 2018. The First Watch program will allow the agency to address issues more timely and effectively by affording us the opportunity to have response data in a real time format, as well as data assessment tools to evaluate cross divisional information.
 - Annual unit activity reporting should include 90th percentile by unit and shift.
 - The LCFD should consider refining the way it reports fire loss to include contents loss, structure loss values.
 - Capture community risk management and marketing metrics using internal databases sources.
 - Address inconsistencies in turnout time and evaluate by station, shift and unit.
2. The agency is working as part of a citywide transition to the EnerGov platform for tracking and managing building inspection data and progress. Future work will be done to integrate preplanning and chronic nuisance building strategies between all city departments.
 - Create goals and statistic metrics to analyze efficiency and impact of Building Inspection and Fire Prevention activities.
3. The agency is in the process of replacing Engine 4 and that project is expected to be completed in 2018. The agency is also in the process of replacing its 1985 Water Tender with a new, combined Pumper/Tender in 2019. This will not only provide us a more reliable water tender, but also add a versatile reserve engine to our fleet.
4. The agency will begin to merge its existing policies and procedures into the Lexipol Knowledge Management System in 2018, in effort to provide dependable and defendable

policy to our personnel. The system also affords us individual policy acknowledgement accountability and additional training capacity.

5. Beginning in 2018, the agency will begin using the Target Solutions training management platform for training and occupational compliance standards. This program will allow the agency to better track certifications, probationary firefighter task books, education assignments and verify individual training records.
6. The agency has completed ongoing needs assessment of decontamination equipment and procedures. Occupational exposure awareness training has been completed in 2017 to address alarming health statistics, and the agency will focus its efforts on adding exhaust capture systems and turnout gear extractors in all four fire stations as future opportunities and budgets processes allow.
7. The end of 2017 has shown some initial promise towards an emerging opportunity to get the agency's Paramedic-level trained personnel approved to work as first-response Paramedics within our response system. This would address recruitment and retention issues and allow the agency to provide a higher standard of care. Negotiations will continue into 2018 with the hopes of a pilot program beginning in early 2019.

Although the agency has identified specific improvement needs and challenges, it is confident that by working within the established parameters identified above and within other applicable accreditation documents, the agency will meet its performance objectives and the expectations of the CFAI.