TABLE OF CONTENTS............................................................................................................2-3
MESSAGE FROM THE FIRE CHIEF.................................................................................... 4-5
ABOUT SPOKANE FIRE.................................................................................................. 6-7
EVERY SECOND COUNTS................................................................................................ 8-9
COMBINED COMMUNICATIONS CENTER....................................................................10-11
FINANCE....................................................................................................................................12-13
EMERGENCY MEDICAL SERVICES..............................................................................14-15
TECHNICAL OPERATIONS............................................................................................16-17
HEALTH CARE INNOVATION.........................................................................................18-21
TRAINING................................................................................................................................22-23
FIRE PREVENTION...........................................................................................................24-25
COMMUNITY RISK REDUCTION..................................................................................26-27
MESSAGE FROM FIRE CHIEF
BRIAN SCHAEFFER

For the last 133 years, the Spokane Fire Department has been protecting the citizens and visitors of Spokane. While the role of the Fire Service has dramatically changed and increased in complexity over those years, the commitment to serve our community with integrity, courage, compassion, and resilience remains steadfast. Our Department recognizes the importance of adaptability and the critical need to change with the needs of the community. Emergency medical responses make up the vast majority of our incident volume; however, we continue to experience a high amount of fires, technical rescues, and hazardous material responses.

I am exceptionally proud of our men and women that serve in all areas of the Spokane Fire Department – they are all skilled professionals who are pushed to their physical, mental, and emotional limits on a daily basis. Passion for serving and a commitment to our mission are what we do, it is what the community expects, and it is why we earn the respect and support of those we serve.

We have designed this report to highlight our performance and accomplishments over 2017. I sincerely believe this report will make you proud to live, work, and recreate in the Capital of the Intermountain Northwest, the City of Spokane. In closing, I want to reiterate how proud I am of the work conducted by the members of the Spokane Fire Department and to share with you their commitment to serve. I hope their commitment to our mission and values provide you with the same pride and satisfaction I enjoy each day as their Fire Chief.
ABOUT SPOKANE FIRE

MISSION
We enhance your quality of life, always earning your trust, by saving lives, preventing harm and protecting property with compassion and integrity.

VISION
To empower our members to exceed the expectations of our citizens in an intricate and dynamic environment.

VALUES
Trust - Mutual Respect - Integrity - Empathy - Transparency - Equality

AGENCY OVERVIEW
The Spokane Fire Department (SFD) has existed as a fire protection agency within the State of Washington since 1884. The fire department is a unit of the City of Spokane general government as required of first class cities under Chapter 35.22 RCW. The City of Spokane is the second largest city in the State of Washington, located adjacent to the Idaho border, and has a Washington Survey and Rating Bureau (equivalent to the Insurance Services Office) rating of three (3).

The Spokane Fire Department’s service area is approximately 69.5 square miles and consists of a mix of urban, suburban, industrial, and wildland areas.

The primary services provided by the Spokane Fire Department include:
- Fire Suppression
- First Response Basic Life Support (BLS) Emergency Medical Services
- First Response Advanced Life Support (ALS) Emergency Medical Services
- Public Education/Community Risk Reduction
- Fire Prevention (Inspection, Fire Protection Engineering Services)
- Fire Investigation/Special Investigations
- Hazardous Materials “Specialist Level” Response
- Special Rescue (Marine, Technical, and USAR)
EVERY SECOND COUNTS

CASCADE OF EVENTS

The Commission on Fire Accreditation International (CFAI) has defined response time elements as a cascade of events. This cascade is similar to that used by the medical community to describe the events leading up to the initiation, mitigation, and ultimate outcome of a cardiac arrest. It is imperative to keep in mind that certain intervals described, such as turnout and travel time, can be directly influenced by the fire service via station locations and design, staffing levels, as well as local rules and procedures for response. Other factors, such as the alarm interval, can be influenced indirectly through public education and engineering initiatives. The fire service can also influence the call-processing interval through its ability to define standards and compel performance by its dispatch centers.

TIME TEMPERATURE STANDARD

The “time-temperature curve” standard is based on data from the National Fire Protection Association (NFPA) and the Insurance Services Organization (ISO), which have established that a typical point source of ignition in a residential house will “flash over” at some time between five and 10 minutes after ignition, turning a typical “room and contents” fire into a structural fire of some magnitude.

TIME TEMPERATURE CURVE

The utility of the time-temperature curve for fire station placement is limited to a number of factors including:

- It does not account for the time required for the existence of a fire to be “discovered” and reported to the fire department via the 911 system.

- The time from ignition to flashover varies widely (5-30 minutes depending on building characteristics); thus it cannot provide a valid basis for the allocation of resources.

- The curve is constantly shifting, given the numerous changes in building construction, built-in suppression systems, the increased use of fire resistive materials for furniture, and other items typically found in the interior of occupied buildings.

CARDIAC ARREST SURVIVAL RATE

In communities where the fire service is the principal provider of Emergency Medical Services (EMS) first response, the goal is for basic life support (CPR and defibrillation) to be available to the victim of a cardiac arrest within four minutes of the event, and that advanced life support (paramedic service) should be available within eight minutes or less of the event. Early notification, distribution and concentration of emergency response services are thus paramount to successful resuscitation efforts.

THE GOLDEN HOUR STANDARD

In trauma events, the golden hour is the historic benchmark applied to victims with significant critical traumatic injuries. The golden hour reflects the concept that survivability decreases significantly if the patient isn’t in the operating room within one hour of receiving a critical traumatic injury.
The Spokane Fire Combined Communications Center (CCC) provides fire service communications, dispatch and all-risk emergency coordination services to all local fire protection authorities in Spokane County. On average, the center receives and dispatches over 200 emergency calls per day. For 2017, the CCC processed and dispatched just over 78,000 incidents. The CCC provides services to 15 fire agencies, including the City of Spokane Fire Department, covering 1800 square miles and interfacing with neighboring county fire jurisdictions (Lincoln, Whitman County, etc.).

The CCC employs 21 staff members that work a combination of 12-hour, 24-hour and surge-related staffing/shifts.

Fire Communication Specialists each receive 1000 hours of initial training. They are all EMT and EMD certified, making them highly trained and skilled to answer and provide instruction during medical emergencies. For 2017, the CCC answered, triaged, and dispatched 65,186 EMS calls for Spokane County, all while meeting the NFPA 1221 standard of dispatching High Priority calls in 60 seconds or less 90% of the time and Low Priority calls in 90 seconds or less, 90% of the time. The CCC averaged 92.2% on high priority calls and 98.4% on low priority calls.
Spokane Fire Department 2017 Annual Report

FINANCE

Overall 2017 Budget

<table>
<thead>
<tr>
<th>Category</th>
<th>2017 Budget</th>
<th>2016 Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fire/EMS</td>
<td>51,677,303.00</td>
<td>47,915,967.00</td>
</tr>
<tr>
<td>Combined Communications Center</td>
<td>4,043,698.00</td>
<td>4,069,475.00</td>
</tr>
<tr>
<td>Combined Communications Building</td>
<td>1,934,894.00</td>
<td>2,027,250.00</td>
</tr>
<tr>
<td>Asset Management/Fire Capital</td>
<td>12,216,083.00</td>
<td>15,767,869.00</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>69,871,978.00</strong></td>
<td><strong>69,780,561.00</strong></td>
</tr>
</tbody>
</table>

Budgeted Expenses

<table>
<thead>
<tr>
<th>Category</th>
<th>2017 Budget</th>
<th>2016 Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personnel</td>
<td>49,401,254.00</td>
<td>45,726,425.00</td>
</tr>
<tr>
<td>M&amp;O</td>
<td>3,851,430.00</td>
<td>4,113,869.00</td>
</tr>
<tr>
<td>Capital</td>
<td>14,040,538.00</td>
<td>16,915,090.00</td>
</tr>
<tr>
<td>Interfund</td>
<td>2,530,606.00</td>
<td>3,029,177.00</td>
</tr>
<tr>
<td>Operating Transfers</td>
<td>48,150.00</td>
<td>0.00</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>69,871,978.00</strong></td>
<td><strong>69,780,561.00</strong></td>
</tr>
</tbody>
</table>

Budgeted FTEs

- Combined Communications Center
- Fire/EMS

Uniformed vs. Civilian FTEs

- Uniformed
- Civilian

2017 384 FTEs
- 363 FTEs
- 319 FTEs

2016 340 FTEs
- 346 FTEs
- 302 FTEs
Spokane Fire Department Emergency Medical Technicians (EMT’s) and Paramedics continue to provide quality care to people suffering from life-threatening conditions. This includes caring for people who suffer sudden cardiac arrest, heart attack, stroke and major trauma. The Spokane Fire Department works collaboratively with local hospital systems (Providence and MultiCare) to provide patients experiencing these conditions with the best possible, evidence-based care.

The severe health conditions listed above represent a small percentage of the total EMS responses made by the Fire Department. A higher percentage of patient contacts involve conditions which are non-life threatening yet still require access to quality health services. The ongoing effort to transform health care in the United States includes moving towards value based health care. That effort, is founded on improving the overall experience with the health care system, improving access to appropriate health care and reducing the overall expense associated with health care, or the “Triple Aim”. The Spokane Fire Department administers, and participates in, several innovative programs that provide our citizens with care and resources that improve quality of life and use the “Triple Aim” as the foundation.
HAZARDOUS MATERIALS
The goal of the Spokane Fire Department’s Hazardous Material Team (Hazmat) is to respond to potential releases of hazardous materials with the purpose of preventing, containing, or stopping the release. In addition, the Hazmat Team responds to confirmed or suspected incidents involving chemical, biological, radiological, or nuclear agents. All technicians and operations trained personnel complete regularly scheduled training to maintain proficiency and increase efficiency and safety at Hazardous Materials incidents. The City of Spokane Fire Department Hazardous Materials Team is staffed daily by three fire stations, Station 1, Station 7, and Station 9. The team is managed by one BC and three Captains, one of which is designated as the hazmat team coordinator.

SFD’s Hazmat Team also participates as part of the Inland Empire Hazmat Task Force. The Task Force is comprised of Spokane County Fire District resources, Spokane Fire Department, Fairchild AFB Hazmat Team and Kootenai County Fire and Rescue. These resources respond to mitigate large-scale, regional hazmat incidents.

TECHNICAL RESCUE
The Spokane Fire Department’s Technical Rescue Team was established in the early 1990’s. The team responds to rescue situations beyond the capabilities of the standard fire company within the City of Spokane and throughout Spokane County. The team has responded to many challenging and high profile incidents in its 20 plus years of existence. These extreme rescue situations include building collapse, confined-space rescue, trench / excavation emergencies and machinery rescue as well as high and low angle rope rescue operations. The team is made up of 40 personnel with highly specialized training and equipment responding from Station 15 and Station 4. The team is managed by the Captains of Station 15 and 4 with program administration handled by a Battalion Chief, under the supervision of the Deputy Chief of Operations.

WATER RESCUE
The SFD Water Rescue Team provides first response rescue capabilities for all types of water related incidents. The Spokane Fire Department Water Rescue Team also responds to emergencies throughout Spokane County in conjunction with the Spokane Valley Water Team and Spokane County Sheriff’s Dive Team. In addition to providing swift water rescue on the Spokane River the team will respond to pond, ice, and flooding incidents. Forty highly trained technicians, responding from Station 2, located in the Logan Neighborhood, and Station 16, located near Joe Albi Stadium utilize a variety of equipment to include a jet boat, catarafts, and kayaks to conduct rescue operations. The team is also supported by the SFD Drone Unit, which is based out of Station 17. The water rescue team is managed by the Captains of Station 2 and 16 with program administration handled by a Battalion Chief, under the supervision of the Deputy Chief of Operations.

RESCUE TASK FORCE
The Spokane Fire Department’s Rescue Task Force is a specialty team within the SFD that is tasked with the responsibility of providing medical care during mass casualty acts of violence or other active threat situations. RTF Teams are made up of specially trained Firefighter/EMTs and Firefighter/Paramedics from stations 3, 13, and 14. They are part of a work group made up of Firefighters and Law Enforcement Officers that have the common goal of treating and rescuing victims from an active threat. RTF Teams are designed to operate in the “warm zone” of active threat situations, where they work in areas that are clear but not secure. As the law enforcement objectives of identify, confine, and eliminate threats are proceeding, RTF Teams can be provided a separate security detail and enter the area to provide wound care for victims. The RTF Team’s main goal is to access, stabilize, and evacuate victims from these hostile environments.
HEALTH CARE INNOVATION

SPOKANE RIDE TO CARE
The Spokane Ride to Care program started in January of 2017. Initially, the program started as a proof of concept pilot project. The Ride to Care program’s primary goal is to leverage the Fire Department’s EMS responder’s knowledge and expertise to identify health conditions that can be appropriately treated in an urgent care setting versus a hospital emergency department (E.D.). When the Paramedic or EMT identifies health conditions that meet the criteria for treatment at an urgent care center, the individual is offered the opportunity to receive transport to an urgent care center in a non-emergency medical transportation van. When the urgent care center completes treating the client, the non-emergency transportation van transports the client back home. The cost of transportation is covered by the Program. In 2017, the Spokane Fire Department’s Ride to Care Program:
• Referred 261 people to local urgent care centers.
• Averaged less than an hour between arrival at the urgent care center and discharge home.
• Resulted in a 90% satisfaction rate with the overall experience as reported by clients through a customer service survey.
• Avoided the higher cost of an ambulance transport and hospital E.D. visit.

SPOKANE FIRE DEPARTMENT COMMUNITY ASSISTANCE RESPONSE (CARES) PROGRAM
The Spokane Fire Department’s CARES Program completed its ninth year of operation in 2017. The CARES Team is the Fire Department’s social response team. Many times, Fire Department personnel encounter an individual who has significant needs apart from their physical health needs. When they do encounter these situations, Fire Department EMS providers make a referral to the CARES Team requesting a follow-up visit. The CARES Team Manager then assigns a team comprised of Eastern Washington University School of Social Work students to visit the client referred by the firefighters. The Team makes contact with the client and completes a thorough social service needs assessment. The Team develops a plan for connecting the client with community resources that address their needs. The CARES Team advocates on behalf of the client and assures that connections are in place to help the client improve their quality of life. The primary goal of the Program is to improve quality of life and reduce unnecessary use of the emergency health care system through addressing needs based on the social determinants of health. In 2017, the CARES Team:
• Received 289 referrals from Spokane Fire Department EMS providers.
• Successfully connected 145 individuals with community resources and closed the case.
• Provided resources that allow vulnerable citizens in our community to remain in their home in a stable, safe and healthy environment.
• Reduced unnecessary use of the emergency health care system by 63% (based on historical use of the emergency care system before and after CARES Team intervention).
There are a number of people in our community that historically over-use the emergency care system in Spokane. These “Super-Utillizers” of the system typically will use Fire Department and Hospital E.D. resources numerous times during the course of a week or month. It is not uncommon for these people to have 10-15 contacts with the EMS system and as many, or more, hospital E.D. visits. Most, if not all, of these contacts are for non-life threatening conditions and may not even involve physical health issues. Commonly, these clients are homeless, have little or no income, are un-insured and have behavioral or substance use disorders. The Community HotSpotter group is a community collaborative comprised of:

- Fire Department EMS Providers
- Fire Department CARES Team
- Hospital Case Management
- Physicians
- Behavioral Health Treatment Professionals
- Law Enforcement
- Low income housing advocacy organizations (Catholic Charities and Volunteers of America)
- The criminal justice system (Community Court)
- Chemical Dependency Treatment Providers
- Health Insurance Company Case Managers

The Community HotSpotter group meets twice monthly and is led by Community Health Workers who work for the Volunteers of America. The group actively manages the care and support of the Super Utilizer. In 2017, the HotSpotters:

- Enrolled 51 of the community’s most prolific utilizers of the emergency care system.
- Provided support so that 6 individuals at risk of becoming homeless were able to remain in their home.
- Provided housing for 11 people that had a long history of being homeless.
- For those people enrolled in the Program, reduced unnecessary use of the emergency care system by 77%.
- Reduced the cost of use of the emergency care system by $22,000.

The Spokane Fire Department’s Integrated Medical Services Division remains committed to its primary mission of reducing death and disability associated with severe health conditions. We also are committed to improving the quality of life for our residents through these, and future, innovative programs.

### Call Processing Time

**Non-Priority**

2017: 98.4%
2016: 99.1%
2015: 99.6%
2014: 99.7%

**Priority**

2017: 92.2%
2016: 95.1%
2015: 97.4%
2014: 97.7%

### Priority EMS Turnout Time

Time unit assigned to an route

2017: 25.1%
2016: 28.0%
2015: 26.0%
2014: 21.1%

### Priority Fire Turnout Time

Time unit assigned to an route

2017: 55.7%
2016: 53.8%
2015: 46.1%
2014: 35.2%

### Priority Turnout Time

Time unit assigned to an route

2017: 62.6%
2016: 65.6%
2015: 62.3%
2014: 61.7%

### First Arriving Engine At Fire

Fire dispatch call received to on scene

2017: 95.3%
2016: 93.7%
2015: 94.9%
2014: 93.3%
The Spokane Fire Department Training Academy started “the year of academies” in March, with a Lateral Academy of nine experienced firefighters from different departments around the country. Lateral entry firefighters completed an accelerated 240 hour, six-week academy, with eight members completing their probationary year. The Lateral Academy was followed closely by an Open Entry Academy with 29 new hires. Twenty-six of those members completed the intense 600 hour, fifteen-week Regional Academy, along with one recruit from Fire District 9. Twenty-five of those members were able to complete their probationary year and shined in their cumulative Gold Room exam.

On September 18, 2017, 21 new hire cadets formed our 2017-2 Regional Academy. Twenty recruits completed the 15-week academy and officially became probationary members. Nineteen members recently completed their six-month test and are now studying for their extensive nine-month test on Spokane City knowledge.

The Spokane Fire Department is an accredited member of the International Fire Service Accreditation Committee (IFSAC), with elements of testing and evaluation established by the State Fire Marshal’s Office. Probationary members receive State IFSAC certifications in Hazardous Materials Awareness and Operations, Firefighter I, and Firefighter II. During the Academy, they also receive the Washington State Emergency Vehicle Incident Prevention (EVIP) certification and the 32-hour, NWCG Wildland FF2 certification. Recruits also attend the State Fire Academy in North Bend for three additional days of advanced instruction utilizing the search and rescue props, burn buildings, and flammable liquids props.
FIRE MARSHAL DIVISION

The Spokane Fire Department Fire Prevention Bureau consists of one Fire Marshal, one Assistant Fire Marshal, five Deputy Fire Marshals, one Fire Protection Engineer, a Community Risk Reduction Manager and three associated clerical staff. Responsibilities of the Prevention Bureau include education, engineering, code enforcement and special inspections for temporary special events. The Bureau currently utilizes the 2015 International Fire Code as adopted by the State of Washington and the City of Spokane. This provides the legal requirements for the protection of property from the hazards of fire, explosion or dangerous conditions in new and existing buildings, as well as providing a minimum level of life safety for the public and emergency responders during emergency operations.

In 2017, the Bureau conducted a total of 10,558 inspection activities requiring site visits or the review and approval of submitted reports. Of that number, there were seven different types of service reports reviewed totaling 6,137 activities, consisting of private hydrant reports, range hood service reports, fire alarm and sprinkler system reports, standpipe service reports, extinguishing system reports and paint/spray booth service reports.

Additionally, 1,533 Deputy Fire Marshal site visits were conducted to renew annual operating permits for activities involving more hazardous operations, 322 special event evaluations were conducted, 835 plan review approvals by the Fire Protection Engineer, and 631 construction related sign offs. The Bureau also monitors the end life dates for multiple single wall underground storage tanks in Spokane and notifies property owners when those tanks need to be removed. In 2017, fifteen tanks were removed, reducing the potential for contamination of the Spokane aquifer, our sole source of drinking water.

SPECIAL INVESTIGATION UNIT

The primary responsibility of the Special Investigation Unit is to conduct fire origin and cause investigations utilizing the Scientific Method in accordance with NFPA 921 Guide for Fire and Explosion Investigations. Investigators are called to investigate structure fires, vehicle fires, wildland fires, rubbish fires, and attempted fire starts. These investigations involve conducting a fire scene examination, witness and victim interviews, evidence collection, origin and cause investigation, testing and research, and report writing to determine a cause of the fire.

When a fire is determined to be a criminal act, SFD works in conjunction with Spokane Police Detectives, Spokane County Prosecuting Attorney Office, the United States Bureau of Alcohol, Tobacco, Firearms, and Explosives Special Agents to identify and prosecute the person or persons responsible.

The Special Investigation Unit also conducts internal investigations, internal accident investigations, burn injury investigations and offers assistance to neighboring agencies requesting fire investigation services.

The Unit currently staffs three full-time Fire Investigators, one Captain and two Lieutenants, with four supplemental Fire Investigators assigned on weekends as needed.
COMMUNITY RISK REDUCTION

PREVENTION/COMMUNITY RISK REDUCTION

The Prevention Division works collaboratively with businesses and community members to support life safety standards for those who live, work, and visit Spokane. Lead by the City of Spokane Fire Marshal, prevention and education efforts are provided by the Assistant Fire Marshal, District Inspectors, Fire Protection Engineer and the Community Risk Reduction team. They serve our community through providing information and responding to complaints regarding a variety of subjects such as fire and life safety hazards, special event and business permits, outdoor burning, hazardous material storage and emergency planning.

COMMUNITY RISK REDUCTION

Educational programming through the Prevention Division provides data driven, fire and life safety information to our community. Various community programs are offered with increased emphasis placed on the national Community Risk Reduction priority populations: older adults, people living with disabilities, immigrants and refugees, families with young children and low income households. Examples of programming include: smoke alarm installation, home safety visits for low income households, preschool and grade school fire safety curriculum, first responder interaction for refugees and immigrants, and fire and fall prevention programming for older adults.

NOTABLE COMMUNITY EQUITY EDUCATIONAL EVENTS

Kids Jr Fire Academy
Open to the public, the event provided an opportunity for kids to have positive interactions with first responders, practice hands only CPR, participate in a junior combat challenge, and sit in a firetruck.

Garland Theater Summer Movie
The weeklong event provided a positive family activity while learning about fire safety. All participants were provided a handout on escape planning and smoke alarms. Messaging reinforcing the ban on fireworks and escape planning.

Preschool Program
Spokane Fire Department works with preschool providers to help the community better recognize the higher risk status to children under the age of 5. We provide an age-appropriate lesson on the sound of a smoke alarm, tools for adults vs toys for kids, hands off matches & lighters and the chance for the children to see a firefighter slowly put on their gear. This positive interaction with first responders helps children feel more comfortable if they are ever in an emergency situation.

STATISTICS

7,823 Youth reached through children’s safety programs
50 Presentations and community events were organized through the Community Risk Reduction office
252 Smoke and CO alarms were installed
Chapter 35.103 RCW: Revised Code of Washington Chapter 35.103 was passed into law during the 2005 legislative session (House Bill 1756). This law mandated certain response criteria be established and measured by fire departments across the State of Washington beginning in 2007 with an analysis of responses in 2006. The requirement was passed and is now the law for all substantially career fire departments. The purpose of this law is to report to the Governing Body of each fire jurisdiction, as well as to the residents of any given area, how the fire department is doing in meeting its established emergency response standards. These standards take into consideration a number of response types: A) Fire Suppression, B) Emergency Medical Services - Basic Life Support (BLS), C) Emergency Medical Services - Advanced Life Support (ALS), D) Special Operations (i.e. Hazardous Materials response and Technical Rescue response), E) Aircraft rescue and firefighting, F) Marine rescue and firefighting, G) Wildland firefighting.