# THE CITY OF EDMONTON FIRE RESCUE MASTER PLAN 2012







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# EXECUTIVE SUMMARY



# EXECUTIVE SUMMARY

The City of Edmonton vision describes Edmonton as a recreation city, an arts city, a city of many cultures and educational opportunities, a city where – east, west, north or south - you are always in the heart of somewhere special. Edmonton Fire Rescue Services plays a key role in making this vision a reality by protecting life, property and the environment in our city. *The Fire Rescue Master Plan* was approved by City Council in 2006 to help guide Edmonton Fire Rescue Services' decision making. Since implementation, the *Master Plan* has been a key element of Edmonton Fire Rescue Services' many successes.

The Master Plan has been reviewed and updated in 2012 to ensure it:

- Aligns with the new direction set by City Council in *The Way Ahead* and its accompanying six 10-year strategic goals (such as improving Edmonton's Livability) that guide the work of all City departments and branches.
- Incorporates any changes in legislative requirements governing the provision of municipal emergency fire rescue services in the Province of Alberta.
- Builds upon the important work that led to Edmonton Fire Rescue Services becoming one of only three other municipalities in Canada to receive international accredited agency status with the Commission on Fire Accreditation International in 2010.
- Reflects current community expectations as identified by key stakeholders, including representatives from community groups, not-for-profit agencies, government organizations, industry and business leaders, regional fire services, the education sector, corporate partners, staff and the general public.

The updated *Master Plan* clearly describes the following Mission, Vision, Values and Goals to effectively guide Edmonton Fire Rescue Services:

MISSION:	We are committed to protecting life, property and the environment.			
VISION:	To make Edmonton a safer, more livable city by providing the best fire rescue services in North America.			
VALUES:	Service; Safety; Relationships; Teamwork			
Goal 1:	We will provide service excellence to make Edmonton a safe and secure community where people choose to live, work and play.			
Goal 2:	We will value employee growth, involvement, and development.			
Goal 3:	We will continue to strengthen, develop and enhance stakeholder partnerships.			
Goal 4:	We will ensure that services are comprehensive, effectively integrated and sustainable.			

In addition, there are seventeen more specific principles which are supported by detailed and measurable targets, standards or guidelines. *The Master Plan* also includes supporting rationale and references to applicable legal statutes and relevant City Council Policies and Bylaws.

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Edmonton Fire Rescue Services delivers an essential public service, helping make Edmonton a safer place to live, work and play. The services provided by Edmonton Fire Rescue Services are essential in responding to fire, rescue and emergency situations, fire prevention and public education, and in responding to life threatening emergency medical situations. The role and expectations placed on Edmonton Fire Rescue Services have evolved to include responding to environmental disasters, preparing for potential acts of terrorism and fostering increased partnerships both inside and outside of City limits.

In 2009, City Council created *The Way Ahead*, a new bold 30 year vision to enhance the quality of life for all Edmontonians. Created with input from thousands of citizens, *The Way Ahead* sets six 10-year strategic goals that guide the work of all City departments and branches, including Fire Rescue Services.

The *Master Plan* is strongly aligned and linked to *The Way Ahead* and its accompanying strategic plans and outlines City Council's policy framework for Fire Rescue Services. Together *The Way Ahead* and the *Fire Rescue Master Plan* guide the current and future direction of *Fire Rescue Services* within the City of Edmonton.



Providing fire rescue services in a complex urban environment requires the efforts of a number of other city departments, community and industry partners, and other orders of government to coordinate and deliver services in a team environment. The chain of survival is the foundation upon which the programs and services are delivered.



Staff Training & Re-certification

#### FEDERAL AND PROVINCIAL LEGISLATION

All policies and guidelines in this document are consistent with relevant provincial government legislation and related regulations. Federal Government legislation affecting Edmonton Fire Rescue Services includes, but is not limited to the Canada Water Act. Provincial Government legislation affecting Edmonton Fire Rescue Services includes, but is not limited to the Municipal Government Act, the Environmental Protection and Enhancement Act, the Health Discipline Act and the Safety Codes Act (the Safety Codes Act is the governing statute for all of the Province of Alberta's safety standards and code regulations, including both Building and Fire Codes).

#### **CITY COUNCIL**

The Municipal Government Act legislates that City Council be responsible for creating and evaluating the policies and programs of the municipality. The act states that a recognized fire department should identify requirements for the establishment of boundaries, provision of funding, and for the formal appointment of a Fire Chief.

#### COMMISSION ON FIRE ACCREDITATION INTERNATIONAL

On March 9, 2010, the Commission on Fire Accreditation International (CFAI) granted Edmonton Fire Rescue Services full status as an accredited agency. CFAI is an international non-profit organization committed to assisting and improving fire and emergency service agencies around the world by promoting organizational and professional excellence and approves a framework of goals and performance measures that if followed will ensure service levels. CFAI is governed by an 11-member commission representing a cross-section of the fire service industry, city and county management, code councils, the U.S. Department of Defense, and the International Association of Firefighters.

#### PARTNERS

Edmonton Fire Rescue Services coordinates services with a wide range of partners including other emergency response service providers within the city and region, the building and development industry, national and international fire industry and other orders of government. Edmonton Fire Rescue Services is responsible to establish, develop, maintain and enhance these partnerships as a cornerstone to effective service delivery. Edmonton Fire Rescue Services also supports effective working relationships with other areas of the Corporation and the Edmonton Fire Fighters' Union through shared vision, collaboration, integration, communication, information sharing and transparency as identified in the City's leadership principle: "We are one city."

#### EDMONTON FIRE RESCUE SERVICES

Edmonton Fire Rescue Services is responsible for executing and ensuring adherence to the *Master Plan* policies and guidelines. The *Master Plan* guides Edmonton Fire Rescue Services strategic plans, business plans, long range operating and capital infrastructure, and associated financial implications.

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# MISSION, VISION AND CORE VALUES

# MISSION

We are committed to protecting life, property and the environment.

# VISION

To make Edmonton a safer, more livable city by providing the best fire rescue services in North America.

# **CORE VALUES**

We value...

## SERVICE:

GOALS

Describe broad

accomplishments.

We fulfill our mission to serve the public 24 hours a day, 7 days a week, 365 days a year.

## SAFETY:

We make public safety and firefighter safety our number one priority through ongoing training, development and innovation.

## **RELATIONSHIPS:**

We build and maintain public trust through integrity, dedication, professionalism and accountability.

## **TEAMWORK:**

We work together as a team. We can only achieve our mission and our other core values by working closely with our internal and external partners.

# **FIRE RESCUE MASTER PLAN**

# PRINCIPLES

Establish more specific directions under each respective goal.

# TARGETS, STANDARDS & GUIDELINES

Identify very detailed and measurable results that will be achieved.

# MISSION, VISION AND CORE VALUES

Edmontonians will continue to recognize Edmonton Fire Rescue Services as an organization that consistently delivers quality service. By demonstrating service, safety, teamwork, and relationship building, we will earn the respect of the people we serve.

Edmonton Fire Rescue Services management and the Edmonton Fire Fighter's Union Local 209 will work effectively together and will unite to provide the best possible fire rescue services to our community. We will hold each other accountable for applying our organizational values and for working together to address challenges.

We will honor and maintain our community's trust by providing timely, effective and efficient service to all response areas. By continuously evolving, we will improve our standards of coverage and address the needs and expectations of our community. By applying a comprehensive workforce development strategy, our services will be delivered by properly trained and professional personnel who are focused on our mission.

We will ensure that our public information and education initiatives continue to evolve and remain relevant so that our services and methods are clearly understood, because we hold dear our community's support and trust. We will explore opportunities to improve service quality through efficient implementation of new processes and strategies while demonstrating fire rescue best practices. We will ensure that city residents, visitors and regional municipalities covered by mutual aid agreements continue to receive outstanding fire and rescue services.

Edmonton Fire Rescue Services will support the City of Edmonton's ongoing work to transform the way City departments work and function to bring our vision to life. To effectively guide us, we have clearly identified and described our Mission, Vision and Core Values:

OUR MISSION: OUR VISION:	We are committed to protecting life, property and the environment. To make Edmonton a safer, more livable city by providing the best fire rescue services in North America.				
OUR CORE VALUES:					
We Value	Our success is dependent upon how well				
Sevice:	We fulfill our mission to serve the public 24 hours a day, 7 days a week, 365 days a year.				
Safety:	afety: We make public safety and firefighter safety our number one priority through ongoing training, development and innovation.				
Relationships:	<b>Relationships:</b> We build and maintain public trust through integrity, dedication, professionalism and accountability.				
Teamwork:	Teamwork:We work together as a team. We can only achieve our mission an our other core values by working closely with our internal and external partners.				

# GOALS & PRINCIPLES



# GOALS & PRINCIPLES

The *Master Plan* is composed of seventeen administrative principles that support the four goals of Edmonton Fire Rescue Services.

These goals directly link to the *The Way Ahead*, a 10-year strategic plan that guides the work of all City departments and branches. The updated *Master Plan* supports the strategic goals in *The Way Ahead*, particularly the goal of improving Edmonton's livability by making our city safer.

# **GOAL 1**

# WE WILL PROVIDE SERVICE EXCELLENCE TO MAKE EDMONTON A SAFE AND SECURE COMMUNITY WHERE PEOPLE CHOOSE TO LIVE, WORK AND PLAY.

- 1.1 Edmonton Fire Rescue Services shall have fire response service level targets that guide the effective and efficient allocation of resources.
- 1.2 Edmonton Fire Rescue Services shall have personnel service level targets that guide the effective and efficient allocation of resources.
- 1.3 Edmonton Fire Rescue Services shall annually review the strategic placement of fire stations, fire apparatus and deployment models to pro-actively plan for changing population patterns in coordination with the City's strategic plans.
- 1.4 Edmonton Fire Rescue Services shall have fire apparatus preventive maintenance and life cycle programs to guide the effective and efficient management of resources.

# **GOAL 2**

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## WE WILL VALUE EMPLOYEE GROWTH, INVOLVEMENT, AND DEVELOPMENT.

- 2.1 Edmonton Fire Rescue Services shall implement inclusive recruitment practices that reach out to the entire community and utilize hiring standards that attract and select the best and most qualified candidates.
- 2.2 Edmonton Fire Rescue Services shall ensure personnel possess the required core competencies, maintained and upgraded through ongoing training, education and certification.
- 2.3 Edmonton Fire Rescue Services shall provide safety, health and wellness programs that contribute to the long term wellbeing of its personnel.
- 2.4 Edmonton Fire Rescue Services shall develop collaborative strategies to enhance communication and feedback opportunities throughout the entire organization.

# GOALS & PRINCIPLES

# **GOAL 3**

WE WILL CONTINUE TO STRENGTHEN, DEVELOP AND ENHANCE STAKEHOLDER PARTNERSHIPS.

- 3.1 Edmonton Fire Rescue Services shall have a City Council approved and Alberta Safety Codes Council endorsed Quality Management Plan.
- 3.2 Edmonton Fire Rescue Services shall use a community risk assessment and management approach to build a safe community.
- 3.3 Edmonton Fire Rescue Services shall develop educational and community based programs that target at risk populations and help foster community involvement and ownership
- 3.4 Edmonton Fire Rescue Services shall enhance relationships with the community at large, and as an integral regional service partner will work closely with other front-line agencies, neighbouring municipalities and our national and international peers.
- 3.5 Edmonton Fire Rescue Services is committed to the City of Edmonton's Working Relationship Agreement principles and will continue to partner with the Edmonton Fire Fighters' Union through a collaborative approach to problem solving, decision making and negotiation.

# **GOAL** 4

WE WILL ENSURE THAT SERVICES ARE COMPREHENSIVE, EFFECTIVELY INTEGRATED AND SUSTAINABLE.

- 4.1 Edmonton Fire Rescue Services shall monitor, report and evaluate its progress towards the *Master Plan* goals and business plan initiatives in support of the City of Edmonton's Strategic Plan *The Way Ahead*.
- 4.2 Edmonton Fire Rescue Services shall be open to the assessment of future opportunities that enhance revenue streams and improve efficiencies while maintaining appropriate levels of essential services.
- 4.3 Edmonton Fire Rescue Services shall follow an integrated approach to ensuring community safety through fire prevention, public education, emergency response and rescue services, medical aid, environmental protection and emergency preparedness planning.
- 4.4 Edmonton Fire Rescue Services shall research innovative programs and partnership opportunities that help continuously improve overall service delivery, build capacity and enhance community ownership.

## **PRINCIPLE 1.1**

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# EDMONTON FIRE RESCUE SERVICES SHALL HAVE FIRE RESPONSE SERVICE LEVEL TARGETS THAT GUIDE THE EFFECTIVE AND EFFICIENT ALLOCATION OF RESOURCES.

#### SERVICE LEVEL TARGETS

The service level targets for fire response times that Edmonton Fire Rescue Services shall work towards include:

- 1. A 90 second call evaluation and dispatch time for fire rescue events, 90% of the time.
- 2. A turnout time of 90 seconds 90% of the time.
- 3. A four minute (240 seconds) or less response time for the arrival of the first pumper company at fire rescue incidents, 90% of the time.
- 4. A four minute (240 seconds) or less response time for the arrival of the first pumper company with first responder capability at life threatening emergency medical incidents, 90% of the time.



5. An eight minute (480 seconds) or less response time for the deployment of a full first alarm assignment of a minimum of 16 firefighters at a fire suppression incident, 90% of the time.

Call Evaluation	• Turnout Time	• Full First Alarm Assignment					
90 seconds	90 seconds	480 seconds					
660 seconds							



#### RATIONALE

There is currently no Federal or Provincial regulations that mandate the level of fire rescue services that a municipality must provide, therefore industry standards and benchmarking are used to identify service level targets. The City of Edmonton's targets are based on industry standards adopted from the National Fire Protection Association 1710 and the International Academy of Emergency Dispatch. The industry standards are based on research and balance the needs of the public, the safety of fire rescue personnel and the protection of lives, property, and the environment.

The National Fire Protection Association and the International Academy of Emergency Dispatch have an array of standards and guidelines. The response time service level targets that Edmonton Fire Rescue Services has selected represent the fundamental standards that guide an effective and efficient deployment model.

The service level targets are objectives that Edmonton Fire Rescue Services works toward and are subject to annual budgets and ongoing assessment of risk. These service level targets apply city-wide and not at a neighbourhood level.

The service level targets provide the mechanism to assess and ensure effective, cost efficient, quality services are achieved today and in the future. The service level targets represent the basic criteria for service delivery, assessing response capabilities and determining resource requirements.

Since City Council endorsed the Fire Rescue Service Level Targets, Edmonton Fire Rescue Services has made a number of process and system improvements that have lead to significant improvements in service delivery. Two service level targets have been revised.

- The service level target for call evaluation and dispatch time has been raised from an average of 90 seconds to achieving the 90 second target on 90% of calls. This target is more closely inline with National Fire Protection Association and is currently being achieved.
- The service level target for Full First Alarm Assignment established in 2003 was based on 14 firefighters arriving on scene. Following the completion of the ladder upgrade program, all ladder trucks now have crews of four firefighters (rather than two). Edmonton Fire Rescue Services has increased the Full First Alarm Assignment to 16 firefighters to reflect this change. This change also reflects the critical tasking requirements conducted during the CFAI accreditation process.

#### REFERENCES

NFPA 1710: Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments

NFPA 1221: Standard for the Installation, Maintenance, and use of Emergency Services Communication Systems

## **PRINCIPLE 1.2**

# EDMONTON FIRE RESCUE SERVICES SHALL HAVE PERSONNEL SERVICE LEVEL TARGETS THAT GUIDE THE EFFECTIVE AND EFFICIENT ALLOCATION OF RESOURCES.

#### SERVICE LEVEL TARGETS

The service level targets for firefighter resources that Edmonton Fire Rescue Services shall work towards include:

- 1. All Pumper companies whose primary function is fire attack, search and rescue, scene safety, ventilation, forcible entry, salvage and overhaul and first responder medical aid will be staffed with a minimum of four firefighters.
- 2. All Rescue companies whose primary function is fire attack, search and rescue, extrication, technical rescues will be staffed with a minimum of four firefighters.
- All Ladder companies whose primary function is scene safety, ventilation, search and rescue, aerial operations for water delivery, high aerial rescue will be staffed with a minimum of four firefighters.
- 4. All Tanker companies whose primary function is shuttling water, wild land urban interface fires and relay pumping will be staffed with a minimum of two firefighters.
- 5. All Hazmat companies whose primary function is hazardous materials dangerous goods response (Chemical, Biological, Radiological, Nuclear) will be staffed with a minimum of five firefighters.
- 6. Single apparatus fire stations will be staffed with a minimum of five firefighters to address risk incurred by technical hazard occupancies, high incident frequencies or geographical restrictions.
- 7. A staff maintenance factor of 1.25 as the standard for 24 hour coverage, 7 days a week, 365 days a year (i.e. five firefighters are required for every 24 hour position).

# 1.2

#### RATIONALE

There is currently no Federal or Provincial regulations that mandate the firefighter resource requirements that a municipality must provide, therefore industry standards and benchmarking are used to identify service level targets. These service level targets are based on industry standards adopted from the National Fire Protection Association 1710. The service level targets are also supported by the Insurers Advisory Organization and identified in the Fire Underwriters Survey (2009).

The key to being able to provide fire rescue services 24 hours a day, 7 days a week, 365 days a year is to ensure that there is adequate firefighter staffing to staff apparatus. Fire Services typically use a determinant called the Maintenance Factor. The Maintenance Factor is derived from an assessment of the City of Edmonton Human Resources policies in areas such as vacation, illness, Workers Compensation, bereavement leave, etc. The Maintenance Factor is the number firefighters that are needed for every 24 hour position (i.e., 20 firefighters are required to staff a four person apparatus, 24 hours a day, 365 days a year).

The provision of safe and effective firefighting conditions for firefighters is achieved through these service level targets. The staff requirements identified in the service level targets enables firefighters to safely and effectively initiate offensive fire attack that protects lives, property and the environment. The service level targets are integral to Edmonton Fire Rescue Services deployment model that ensure the right number of firefighters and apparatus are assigned in Edmonton communities.

The service level targets are objectives that Edmonton Fire Rescue Services works toward achieving and are subject to annual considerations of funding and ongoing assessment of risk and changes.

Since 2006, City Council has provided additional funding to Edmonton Fire Rescue Services to upgrade all Aerial trucks to four firefighter Ladder crews and all single rig stations now have five firefighter Pumper crews which resulted in improved full first alarm assignment response.

All service level targets for firefighter resources are being met.

# **PRINCIPLE 1.3**

### EDMONTON FIRE RESCUE SERVICES SHALL ANNUALLY REVIEW THE STRATEGIC PLACEMENT OF FIRE STATIONS, FIRE APPARATUS AND DEPLOYMENT MODELS TO PRO-ACTIVELY PLAN FOR CHANGING POPULATION PATTERNS IN COORDINATION WITH THE CITY'S STRATEGIC PLANS.

#### **GUIDELINES**

Fire stations and fire apparatus are strategically located throughout the City of Edmonton based on ongoing demand and risk analysis of the variables including:

- 1. Analysis of call volumes and fire response times in neighbourhoods of the city.
- 2. Overall risk assessment that considers Edmonton's unique residential, commercial and industrial environments and natural areas, high risk areas and hazards
- 3. Population in areas of the city.
- 4. Analysis of alternative station location and apparatus deployment strategies.
- 5. Geography of Edmonton, including roadways, bridges, river, traffic patterns and congestion, existence of permanent traffic obstructions such as rail road tracks.
- 6. Analysis of alternative apparatus deployment strategies; and
- 7. Ensure sufficient lands are dedicated for required facilities in coordination with Policy 3.2.2 of *The Way We Grow* (Municipal Development Plan).

#### RATIONALE

Edmonton Fire Rescue Services uses a station based deployment model with fire stations placed at strategic locations throughout the city. Each station location is based on an analysis of the variables identified in the guidelines above and the overall level of risk. The apparatus assigned to each station is also deployed based on the overall level of risk and these variables are considered in conjunction with each other rather than in isolation. In addition, stations are designed to be flexible with the ability to accommodate additional or alternate apparatus if the deployment model needs to be changed.

The goal of the deployment model is to have stations located so that the response time of the first arriving unit from a station to the location of an incident can occur in four minutes or less, 90% of the time. This travel time is critical in allowing Edmonton Fire Rescue Services to arrive at the scene of a fire incident in time to limit the impact of the fire. Early and aggressive fire attack is recognized as the most effective method of minimizing loss of lives, property and impact to the environment.

As the city grows and expands, Edmonton Fire Rescue Services reviews its response time capability and the projected and real growth in population and commercial activity to assess the need and timing for new stations. Edmonton Fire Rescue Services recognizes that it is not feasible to provide uniform



# 1.3

coverage across the whole geographic area of the city, specifically in areas of low population density. In addition Edmonton is also undergoing rapid intensification in various parts of the city. The deployment model needs to ensure that resources are deployed in response to changing trends.

Increased call volumes result in Edmonton Fire Rescue Services spending more time responding to incidents which impacts their availability. In these situations crews from alternate stations provide response coverage with longer response times. Apparatus are assigned to stations based on key factors and while the types of apparatus assigned to each station may vary, all stations are equipped with a minimum of one Pumper unit. Assignment of additional apparatus to specific stations is based on a risk assessment of the surrounding neighbourhoods and the operational capabilities of the units. For example, some areas of the city have a greater number of high rise buildings and therefore have a greater need for Ladder units that can supply elevated water streams.

In recent years there has been a noticeable increase in the number of high rise properties in the residential suburbs impacting apparatus deployment. The outer fringes of the city require stations equipped with Tanker units capable of providing water supply as hydrant water may not be readily available or sufficient to support aggressive fire attack. The heavy industrial and concentrated commercial nature of the city also has a significant impact on the high life hazards which need to be considered when deploying apparatus. Edmonton Fire Rescue Services continually reviews the placement of apparatus to ensure that optimal coverage is provided with the resources available.

The geography of the city and the influences of the river valley, bridges, arterial roadways and traffic congestion are also analyzed and assessed when determining the locations of new stations and the deployment of apparatus. When it is determined that a new station is required, the decision on the location of the new station and the associated apparatus is made in consideration of the project land use and subsequent impacts this may have on existing stations and apparatus.

As existing stations reach the end of their lifecycle a full analysis and risk assessment is carried out to determine the optimal location of the replacement station to support the deployment model in relation to other stations. Edmonton Fire Rescue Services has developed a Station Location Master Plan to guide the development of future fire stations. This plan is continually reviewed to confirm the proposed locations are still the most effective for service delivery and that the priority sequence reflects the changing needs of the city. Where required, changes to the plan are made. The Station Location Master Plan is a key guide to the development of the Long Range Financial Plan and the development of capital budget requests.

#### REFERENCES

The Way We Grow, Municipal Development Plan City of Edmonton (Policies 3.2.2.2; 3.2.2.3; 3.2.2.4)

# **PRINCIPLE 1.4**

## EDMONTON FIRE RESCUE SERVICES SHALL HAVE FIRE APPARATUS PREVENTIVE MAINTENANCE AND LIFE CYCLE PROGRAMS TO GUIDE THE EFFECTIVE AND EFFICIENT MANAGEMENT OF RESOURCES.

#### **GUIDELINES**

- 1. The fire apparatus preventive maintenance program includes:
  - a. A program specific to each type of vehicle with a maintenance schedule based on kilometers traveled and hours of operation for each vehicle.
  - b. Annual testing of Pumpers and Aerials as outlined by the Underwriters' Laboratories of Canada and Alberta Commercial Vehicle Inspection Program.
- 2. The fire apparatus life cycle program requires the completion of a replacement assessment on each vehicle as it nears the end of its designated life cycle. The replacement assessment includes:
  - a. Consideration of the age, condition and usage;
  - b. Operational functionality with regards to its ability to meet the current needs, reliability and technological requirements;
  - c. Economic feasibility through an Annual Equivalent Cost analysis based on principle components: the decline in residual value and rise in operating cost.
- 3. Years of service guidelines and equipment replacement funding for various types of fire apparatus will be based on the following guidelines that are developed in association with City of Edmonton Fleet Services:

Apparatus	Years of Service Guidelines	Replacement Funding
Light vehicles	5 to 10 years	7 years
Boats	6 to 10 years	8 years
Rescue	15 to 20 years	17 years
Specialized Vehicles	8 to 20 years	14 years
Aerials/Ladders	15 to 20 years	17 years
Pumper Trucks	12 to 14 years	13 years
Tankers	15 to 20 years	17 years

3. An annual evaluation of the preventative maintenance program and working relationship with Fleet Services will be conducted, including efficiency reviews of fleet acquisition and fleet maintenance.

# 1.4

### RATIONALE

To provide an effective fire service, fire apparatus must meet industry standards for equipment maintenance, life cycle and safety. Apparatus in service that do not meet these standards become a liability both for the municipality and the firefighters staffing the apparatus. The Insurance Advisory Organization strongly recommends a maintenance and life cycle program to be in place. A service level agreement between Edmonton Fire Rescue Services and City of Edmonton Fleet Services establishes preventative maintenance needs and ensures ongoing monitoring and evaluation of this program.

The Annual Equivalent Cost model for determining when to replace vehicles or equipment is a well recognized model endorsed by the American Public Works Association and used in commercial fleet management. The Annual Equivalent Cost model evaluates replacement based on a number of economic considerations including decline in residual value, and rise in operating costs.

The fire apparatus preventive maintenance and lifecycle program also includes criteria based on Edmonton Fire Rescue Services research, historical data, and industry standards adopted from the National Fire Protection Association 1901 standard, Manufacturer guidelines, provincial testing requirements and certification, Underwriters' Laboratories of Canada and the Fire Underwriters Survey Guide to Public Fire Protection.

Edmonton Fire Rescue Services, in partnership with Fleet Services has reviewed years of service guidelines and has determined that the original (15-20 years) lifecycle for pumper trucks is not achievable and cost effective. The lifecycle of pumper units has been reduced to 12-14 years in the 2012 revision of the Fire Rescue Services Master Plan. Implementing this change will help to achieve:

- Fewer impacts associated with vehicle servicing down-time.
- Net cost savings through reduced maintenance needs.
- Better alignment with guidelines set by organizations such as the Fire Underwriters Survey.
- Improved access to newer and greener equipment exhibiting the latest technology.

#### REFERENCES

NFPA 1901: Standard for Automotive Fire Apparatus

# **PRINCIPLE 2.1**

EDMONTON FIRE RESCUE SERVICES SHALL IMPLEMENT INCLUSIVE RECRUITMENT PRACTICES THAT REACH OUT TO THE ENTIRE COMMUNITY AND UTILIZE HIRING STANDARDS THAT ATTRACT AND SELECT THE BEST AND MOST QUALIFIED CANDIDATES.

### GUIDELINES

Ensure the best qualified applicants are selected through firefighter hiring standards and the recruitment practices that include:

- 1. A recruitment process that reaches out to the community and is designed to be non-gender biased and non-discriminatory.
- 2. Applicants must meet the firefighter hiring standards.
- 3. Applicants complete several stages of testing including, but not limited to, aptitude testing, physical fitness evaluation, health and medical evaluation, security clearance and reference checks and personal interviews.
- 4. Edmonton Fire Rescue Services will incorporate deliberate and ongoing strategies of inclusion when developing, modifying or implementing policies, directives, processes, practices, programs and services.
- 5. Edmonton Fire Rescue Services will regularly demonstrate progress towards the creation of a municipal workforce that is reflective of the citizens and communities it serves.

#### RATIONALE

Edmonton is a city made rich, vibrant and energetic by the diversity of its citizens and communities. Diversity is a defining feature of Edmonton's past, present and future. A fundamental relationship exists between the diversity of our city and its capacity for cultural, economic, social and political excellence. Deriving the greatest benefit from our diversity requires a deliberate, ongoing strategy of inclusion. Through inclusion the City of Edmonton makes full, effective use of the broad range of talents, abilities and perspectives found amongst our citizens. The City strives to develop all facets of City policy and operations to allow each citizen to participate fully in the life of their city, and to allow each to feel they are a respected and valued member of the community with a stake in Edmonton's future.

Edmonton Fire Rescue Services is committed to attracting and retaining outstanding employees through inclusive practices. A rigorous screening process is required to ensure the best qualified candidates are selected. There are rigorous physical demands on firefighters; research has repeatedly shown a need for high levels of fitness to perform safely and effectively. Extensive job related physical testing is required to ensure candidates can meet the demands of the job. The eligibility criteria and several stages of testing help ensure the best qualified candidates are selected.

Edmonton Fire Rescue Services is making considerable effort to hire the best qualified people. Edmonton Fire Rescue Services will enhance recruitment efforts to reach out to potential candidates from across the community. To be successful in attracting diverse candidates, Edmonton Fire Rescue Services workforce requires an environment of competence that is free of bias.

REFERENCES

City Policy C538 Diversity and Inclusion City Directive A1104A Hiring

# **PRINCIPLE 2.2**

## EDMONTON FIRE RESCUE SERVICES SHALL ENSURE PERSONNEL POSSESS THE REQUIRED CORE COMPETENCIES, MAINTAINED AND UPGRADED THROUGH ONGOING TRAINING, EDUCATION AND CERTIFICATION.

#### **GUIDELINES**

- Core competencies are based on the needs of service delivery to the City of Edmonton that include, but are not limited to National Fire Protection Association (NFPA) and National Association of Professional Drivers (NAPD) standards:
  - a. Professional Firefighter NFPA 1001
  - b. Emergency Medical Responder Alberta College of Paramedics Certification
  - c. Fire Apparatus Driver / Operator NFPA 1002
  - d. First Responder to Hazmat Incident NFPA 472
  - e. Fire Officer Competencies NFPA 1021
  - f. Organization and Deployment of Fire Suppression Operations NFPA 1710
  - g. Fire Investigators Alberta Safety Codes Act
  - h. Driving Certification NAPD
  - i. Fire Prevention Officers Alberta Safety Codes Act
  - j. Emergency Communication Specialist National Academy of Emergency Dispatch (EFD certification)
  - k. Technical Rescue Competencies NFPA 1006
- 2. Comprehensive training models for firefighters and officers are designed to achieve and maintain core competencies.
- 3. Organization strength is built through career development and leadership for firefighters and officers.
- 4. Edmonton Fire Rescue Services training school, in collaboration with all training program coordinators and operations, will annually prioritize the required training programs.
- 5. Edmonton Fire Rescue Services will annually schedule the entry level, maintenance level, specialty level, and e-learning educational programs required.
- 6. Edmonton Fire Rescue Services will provide in the calendar year an allotted and adequate time segment for program development and planning.
- 7. Edmonton Fire Rescue Services will ensure that all instructors participate in ongoing professional development.

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8. Edmonton Fire Rescue Services will commit to providing apparatus and equipment necessary for delivering training programs.

#### RATIONALE

The success of Edmonton Fire Rescue Services depends on a highly motivated workforce that has integrity and professional expertise. Each employee is charged with representing Edmonton Fire Rescue Services and its mission and values on a daily basis. Edmonton Fire Rescue Services has identified core competencies which are integral to providing quality services to the community.

Edmonton Fire Rescue Services is faced with an increasing need to develop and maintain new skill sets through constantly evolving training programs. For example, changes in building codes and building materials have significantly changed fire fighting techniques. Training demands are further compounded by a major retirement wave occurring in the next five years that will require training at all levels of the organization. The retirement of senior officers requires an emphasis on an effective succession plan that includes leadership development and management skills.

Recruit training, ongoing core competency training for firefighters and officer command training must meet and maintain industry standards to ensure service delivery. These goals are achieved through constant training and re-certification. Quality training is reflected in the service delivered to citizens and provides for a safe work environment for firefighters.

Some training must always be delivered using practical instructor-led methods to ensure hands-on competency has been attained. Edmonton Fire Rescue Services will continue to use e-learning to deliver theoretical aspects of fire rescue training to avoid costs and increase training efficiency.

#### REFERENCES

NFPA 472: Standard for Professional Competence of Responders to Hazardous Materials Incidents

NFPA 1001: Standard for Fire Fighter Professional Qualifications

- NFPA 1002: Standard for Fire Apparatus Driver/Operator Professional Qualifications
- NFPA 1006: Standard for Technical Rescuer Professional Qualifications
- NFPA 1021: Standard for Fire Officer Professional Qualifications
- NFPA 1033: Standard for Professional Qualifications for Fire Investigator
- NFPA 1710: Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations,

and Special Operations to the Public by Career Fire Departments

2009-2013 Strategic Plan, Edmonton Fire Rescue Services

# **PRINCIPLE 2.3**

# EDMONTON FIRE RESCUE SERVICES SHALL PROVIDE SAFETY, HEALTH AND WELLNESS PROGRAMS THAT CONTRIBUTE TO THE LONG TERM WELLBEING OF ITS PERSONNEL.

#### **GUIDELINES**

- 1. Edmonton Fire Rescue Services will provide a comprehensive Occupational Health and Safety program that:
  - a. Includes operational guidelines.
  - b. Includes approved personal protective ensemble National Fire Protection Association (NFPA 1971).
  - c. Complies with Occupational Health and Safety Act.
- 2. Edmonton Fire Rescue Services will provide a Fire Rescue Health and Wellness Program that includes comprehensive medicals, a fitness component, a rehabilitation component and a behavioral health component.
- 3. Edmonton Fire Rescue Services will develop a comprehensive fire service facilities assessment and implement needed improvements to support safety, health and wellness programs.

### RATIONALE

The demands placed on firefighters today go well beyond their traditional roles. The complexity of the city, the hazards of modern construction and manufactured materials, environmental risk and the diversity of risk potential are putting increased pressures on all Edmonton Fire Rescue Services employees. Enhancing workforce safety, health and wellness helps reduce the incidence of injury, illness and time lost from work. The City of Edmonton will support Edmonton Fire Rescue Services employee's health, wellbeing and safety through a comprehensive occupational health and safety program and a customized health and wellness program.

# 2.3

The provision of safe and effective firefighting conditions is achieved through training, sufficient resources, apparatus and equipment. The comprehensive occupational health and safety program includes operational guidelines, approved personal protective ensemble as defined in NFPA 1971 and compliance with the Alberta Occupational Health and Safety Act. The Act sets standards to protect and promote the health and safety of workers.

Statistics from the International Association of Firefighters and the International Association of Fire Chiefs indicate that firefighting remains one of the most dangerous occupations. Research has repeatedly shown a need for high levels of fitness to perform safely and effectively. Shift work, strong emotional involvement, and exposure to human suffering, places the firefighting profession among the most stressful occupations in the world.

High levels of stress, intense physical demands, and long term exposure to chemical and infectious disease are known to contribute to heart and lung disease, and cancer, the three leading causes of death and of occupational disability. The Government of Alberta passed presumptive cancer and heart injury legislation classifying fourteen forms of cancer as well as heart injury as occupational. The legislation automatically grants firefighters Workers Compensation Board coverage for all fourteen forms of cancer as well as heart injury.

Edmonton Fire Rescue Services health and wellness program is based on a model developed jointly by the International Association of Firefighters and the International Association of Fire Chiefs. Fire Departments in other cities have reduced their rates of injury and illness through the implementation of the model which is designed specifically to meet the health and wellness needs of firefighters.

#### REFERENCES

Alberta Workers Compensation Board Legislation Alberta Occupational Health and Safety Act Alberta Workers' Compensation Act, Firefighters' Primary Site Cancer Regulation City Directive A 1117B Occupational Health and Safety Administrative Directive NFPA 1971: Standard on Protective Ensemble for Structural Fire Fighting 2009-2013 Strategic Plan, Edmonton Fire Rescue Services

# **PRINCIPLE 2.4**

# EDMONTON FIRE RESCUE SERVICES SHALL DEVELOP COLLABORATIVE STRATEGIES TO ENHANCE COMMUNICATION AND FEEDBACK OPPORTUNITIES THROUGHOUT THE ENTIRE ORGANIZATION.

#### **GUIDELINES**

- 1. Edmonton Fire Rescue Services shall develop and maintain an effective internal communication strategy for all fire personnel.
- 2. Edmonton Fire Rescue Services shall develop and maintain an effective communications strategy for our business partners and support agencies.
- 3. Edmonton Fire Rescue Services shall develop and maintain an information tracking system which provides convenient access to information.

### RATIONALE

Edmonton Fire Rescue Services is committed to involving the people and staff affected by the decisions it makes. Edmonton Fire Rescue Services seeks diverse opinions, experiences and information to support decision making through a range of staff engagement and involvement opportunities:

- Annual business planning sessions with all station personnel
- Annual senior officer's sessions
- Seeking staff participation on a range of working committees
- Distribution of management team meetings/decisions
- Operational section meetings
- Station visits by senior officers

#### REFERENCES

City Directive A1448 Public Involvement 2009-2013 Strategic Plan, Edmonton Fire Rescue Services

# **PRINCIPLE 3.1**

# EDMONTON FIRE RESCUE SERVICES SHALL HAVE A CITY COUNCIL APPROVED AND ALBERTA SAFETY CODES COUNCIL ENDORSED QUALITY MANAGEMENT PLAN.

#### SERVICE DELIVERY STANDARDS

The Quality Management Plan establishes service delivery standards, responsibilities and the minimum performance criteria to be provided by the Municipality under the Safety Codes Act. The service delivery standards provide support for two core services:

- 1. Alberta Fire Code Administration, which includes:
  - a. Consultation and code advice for new construction, building upgrade programs and fire safety plans.
  - b. Compliance monitoring (inspections).
  - c. Plan reviews.
  - d. Permit issuance.
- Fire Investigations to determine the cause, origin and circumstance of fires where a death, injury, or property loss occurs.

#### RATIONALE

A comprehensive Quality Management Plan (QMP) is a critical foundation for municipalities to prevent incidences and limit impacts of fire. Edmontonians need to be confident that their homes, buildings and facilities are constructed and maintained to a safe standard. Edmonton Fire Rescue Services QMP identifies two core elements, Alberta Fire Code Administration and Fire Investigations, and was updated in 2010 on the basis of a risk assessment instrument that amended the number of fire prevention inspections according to level of risk associated (from low-1 to maximum- 4):

HIGH PROBABILITY/LOW CONSEQUENCE (MODERATE RISK) 2

LOW PROBABILITY/LOW CONSEQUENCE (LOW RISK) 1 HIGH PROBABILITY/HIGH CONSEQUENCE (MAXIMUM/WORST RISK) 4

LOW PROBABILITY/HIGH CONSEQUENCE (HIGH/SPECIAL RISK) 3



Risk assessment is an integral part of Edmonton Fire Rescue Services ability to review its current operations and plan for the future. Risks were inserted into POSSE property record information system. Inspection records rate each building as low, medium, high and special/maximum risk. Ratings were based on existing buildings and the known occupancy of each.

Regular fire inspections and effective compliance monitoring are essential in improving fire safety. Fire investigations are a critical component of fire safety in determining the cause of fires. This allows preventive strategies to be developed to increase the safety of buildings which may include recommending changes to the building codes. Edmonton Fire Rescue Services is legislated under the Safety Codes Act to provide fire investigations within 48 hours of an incident for all fires where property damage or loss was assessed.

The City of Edmonton is an accredited municipality for the Fire Discipline under the Safety Codes Act pursuant to approval of the QMP by City Council and the Alberta Safety Codes Council. A QMP is a written description of the Service Delivery Standards the City will follow in implementing the functions for which it is accredited.

#### THE QUALITY MANAGEMENT PLAN REQUIRES THAT:

- The City, under the direction of the Chief Administrative Officer, is responsible for the administration, effectiveness, and compliance with the QMP that includes Scope and Administration and Service Delivery Standards.
- 2. Scope of Accreditation: The City of Edmonton will administer the Safety Codes Act including all pursuant regulations applicable to all parts of the Alberta Fire Code within the municipal jurisdiction.
- 3. Accreditation entitles the City to enforce the provisions of the Fire Code within the City of Edmonton by conducting fire inspections and investigation services with certified Safety Code Officers.
- 4. The City's accreditation imposes on it the objective to carry out inspections and related activities according to guidelines set out in the approved documented schedule. The Service Delivery Standards include the City of Edmonton frequency of inspection guidelines based on occupancy classes, manageable frequency, and code-mandated programs (Apartment Upgrade Program and Safe Housing Committee).

#### REFERENCES

Safety Codes Act, Government of Alberta, 1994 NFPA 1033: Standard for Professional Qualifications for Fire Investigator City Council Approved Quality Management Plan

# **PRINCIPLE 3.2**

# EDMONTON FIRE RESCUE SERVICES SHALL USE A COMMUNITY RISK ASSESSMENT AND MANAGEMENT APPROACH TO BUILD A SAFE COMMUNITY.

#### **GUIDELINES**

Edmonton Fire Rescue Services will use a community risk assessment approach to identify the most effective way to manage risk. This approach is determined through an ongoing high level strategic assessment that includes, but is not limited to:

- 1. Projected population and geographic area growth (i.e., intensification in mature neighbourhoods, construction of high rises, new growth in the outer perimeters of the city, etc.).
- 2. Demographic change patterns (i.e., aging demographic profile, increase in new immigrant population, etc.).
- 3. Wildland Urban Interface.
- 4. Nature and characteristics of properties and the related building codes.
- 5. New technologies and methods of building construction.
- 6. High risk areas, in terms of life, property and the environment which need to receive the most attention.
- 7. Risk impacts from adjacent communities.

# 3.2

#### RATIONALE

The *Master Plan* places the responsibility on Edmonton Fire Rescue Services to plan for, and respond to, a range of emergencies on the basis of an ongoing community risk assessment and management approach.

In 2009, a document entitled *Standards of Cover* was developed to provide Edmonton Fire Rescue Services with a community risk assessment. The factors that drive service needs were examined in a precise and scientific manner to determine the capabilities necessary to adequately address the risks that were present. The assessment of risk is critical to the determination of the number and placement of resources, and to the mitigation measures that may be available to an agency. As a result of the process, performance objectives were developed that allowed for analysis of the overall performance of the system. Based upon the risk categories and the establishment of management zones/grids, systems could be designed and built that would be capable of objectively determining it's capability to provide service at the level selected.

The risk profile informs Edmonton Fire Rescue Services by:

- Identifying and assessing risk.
- Developing risk mitigation strategies.
- Selecting the best strategy.
- Implementing the chosen strategy.
- Monitoring the strategy for its effectiveness.

This approach to risk assessment and management seeks to have the right resources in the right places at the right times to be most effective in protecting the community.

In 2011 Edmonton Fire Rescue Services implemented a pre-incident planning program for firefighters to pre-plan high and maximum risk facilities in the community. This program will identify specific hazards that firefighters can be aware of before responding to an emergency event with the objective of enhancing firefighter and public safety.

#### REFERENCES

NFPA 1250: Recommended Practice in Emergency Service Organization Risk Management City Policy C505 Edmonton's Environmental Management System, April 21, 2004 Standards of Cover 2009, Edmonton Fire Rescue Services

# **PRINCIPLE 3.3**

EDMONTON FIRE RESCUE SERVICES SHALL DEVELOP EDUCATIONAL AND COMMUNITY BASED PROGRAMS THAT TARGET AT RISK POPULATIONS AND HELP FOSTER COMMUNITY INVOLVEMENT AND OWNERSHIP.

## GUIDELINES

- 1. Edmonton Fire Rescue Services shall develop and implement high profile public education and awareness programs that target at risk populations.
- 2. Public education programs will be targeted as identified through the community risk assessment.
# 3.3

#### RATIONALE

One of the most effective ways to protect life, property and the environment is to prevent emergencies from occurring (preventing fires saves lives, reduces injuries and reduces economic and environmental impacts). Public education is one of the most cost effective methods Edmonton Fire Rescue Services has to prevent the occurrence of emergencies and limit their impact. Through the effective use of public education, a more informed community is built that promotes safety as a priority.

Research has proven that communities that emphasize public education and awareness have fewer injuries and property damage due to fire. Community fire safety involves a range of different initiatives aimed at promoting a fire-safe environment, particularly in the home. Edmonton Fire Rescue Services targets at risk populations to further reduce the overall number of deaths, injuries and property loss resulting from fires.

Edmonton Fire Rescue Services also recognizes the breadth and diversity of the population within the city and has developed public education programs and messages that are delivered in multiple languages through partnerships with community agencies.

## **PRINCIPLE 3.4**

EDMONTON FIRE RESCUE SERVICES SHALL ENHANCE RELATIONSHIPS WITH THE COMMUNITY AT LARGE, AND AS AN INTEGRAL REGIONAL SERVICE PARTNER WILL WORK CLOSELY WITH OTHER FRONT-LINE AGENCIES, NEIGHBOURING MUNICIPALITIES AND OUR NATIONAL AND INTERNATIONAL PEERS.

#### GUIDELINES

- 1. Edmonton Fire Rescue Services shall develop effective working relationships with key partners.
- 2. Edmonton Fire Rescue Services shall establish an effective community relations strategy to ensure ongoing community understanding and support of the services offered, which includes:
  - a. Establishing and maintaining a list of target audiences in the community.
  - b. Exploring and identifying various methods of interacting with the community to both share and gather information.
  - c. Maintaining an evaluation instrument to measure customer satisfaction.
  - d. Implementing an ongoing strategy to create opportunities to be visible with a purpose of providing service to the community.
- 3. Edmonton Fire Rescue Services shall develop and maintain an information tracking system which provides convenient access to information.

# 3.4

#### RATIONALE

Edmonton Fire Rescue Services needs to foster strong and effective working relationships with the community, industry, regional partners and other orders of government, as well as with other areas of the City of Edmonton to ensure continued operational effectiveness and service delivery.

Edmonton Fire Rescue Services service delivery is built around the Chain of Survival and relies on strong partnerships with Alberta Health Services and the Edmonton Police Service to effectively deliver service.

Each party within the emergency response network shares in and contributes a unique set of skills and expertise that collectively provide services to save the lives and protect the property and environment of Edmontonians. For example, successful fire prevention outcomes require working closely with other City departments, EPCOR, ATCO, developers, and building control authorities to make sure new buildings and neighbourhood developments meet fire safety standards.

#### REFERENCES

2009-2013 Strategic Plan, Edmonton Fire Rescue Services

## **PRINCIPLE 3.5**

EDMONTON FIRE RESCUE SERVICES IS COMMITTED TO THE CITY OF EDMONTON'S WORKING RELATIONSHIP AGREEMENT PRINCIPLES AND WILL CONTINUE TO PARTNER WITH THE EDMONTON FIRE FIGHTERS' UNION THROUGH A COLLABORATIVE APPROACH TO PROBLEM SOLVING, DECISION MAKING AND NEGOTIATION.

#### GUIDELINES

- 1. Edmonton Fire Rescue Services will continue to work toward maintaining and enhancing an effective working relationship with the Edmonton Fire Fighters' Union Local 209.
- 2. Edmonton Fire Rescue Services shall continue developing and implementing programs that support an effective and collaborative relationship.
- 3. Edmonton Fire Rescue Services shall have a framework that supports a cooperative relationship between union and management.
- 4. Edmonton Fire Rescue Services shall continue to schedule labour/management meetings to discuss and deal with issues in Edmonton Fire Rescue Services.
- 5. Edmonton Fire Rescue Services and the respective unions and associations representing fire personnel are collectively committed to and accountable for between union and management.
  - a. Recognizing and respecting each other's roles, interests and accountabilities.
  - b. Communicating with each other in ways that promote common understanding, effective problem solving and enhanced relationships.
  - c. Working to earn and sustain trust.
  - d. Using a collaborative approach to problem solving, decision making and negotiation.
  - e. Attacking issues, not people.
  - f. Honouring the agreements we reach.
  - g. Giving each other the benefit of the doubt.

# 3.5

#### RATIONALE

Collaborative relations between management of the City of Edmonton and the unions and associations representing City employees help to build and maintain public trust through integrity, dedication to service, professionalism and accountability.

Collaboration enables us to work together toward our common goals to deliver quality services as the best value possible, satisfy customers and value employees. A commitment to collaborative relations complements the right and responsibility of managers to work for the best interests of the organization and the right and responsibility of unions to represent the best interests of their members.

#### REFERENCES

Working Relationship Agreement, Reaffirmed January 2011 2009-2013 Strategic Plan, Edmonton Fire Rescue Services

## **PRINCIPLE 4.1**

EDMONTON FIRE RESCUE SERVICES SHALL MONITOR, REPORT AND EVALUATE ITS PROGRESS TOWARDS THE *MASTER PLAN* GOALS AND BUSINESS PLAN INITIATIVES IN SUPPORT OF THE CITY OF EDMONTON'S STRATEGIC PLAN *THE WAY AHEAD*.

#### **GUIDELINES**

- 1. Performance measurement and reporting framework that links key performance indicators with the goals, outcomes, policies, service level targets and standards identified in the *Master Plan* and annual Edmonton Fire Rescue Services Business Plans.
- 2. Regular reporting and assessment of performance.
- 3. Evaluation of changes and innovations through the continuous improvement cycle.
- 4. Established accountability and transparency to the community.



#### RATIONALE

The *Master Plan* is aligned to the overarching vision and goals outlined *The Way Ahead* and the six accompanying 10-year strategic plans (*The Way We Live; The Way We Green; The Way We Finance; The Way We Grow; The Way We Move; The Way We Prosper*).

Effective implementation of the *Master Plan* is assessed through an established and structured performance measurement framework. This framework links key performance indicators to the goals, outcomes, policies, Service Level Targets, Service Delivery Standards and Guidelines identified in the *Master Plan* and Edmonton Fire Rescue Business Plans.

The *Master Plan* identifies a range of quantifiable targets, standards and guidelines for Edmonton Fire Rescue Services to strive toward. Some are based on recognized industry standards such as the National Fire Protection Association (NFPA) 1710 standard, while others are based on Edmonton Fire Rescue Services knowledge and experience.

Regular monitoring and evaluation of performance over time is essential to allow Edmonton Fire Rescue Services to identify where progress is being made and where adjustments to systems and processes may be required, or where resources may need to be reallocated, increased or decreased. The impacts of changes and innovations are evaluated through the continuous improvement cycle to determine if desired outcomes are being achieved.

The use of consistent and reliable information increases confidence of all stakeholders in Edmonton Fire Rescue Services and allows decisions to be made based on facts rather than on assumptions. Regular reporting of performance to the community, to the City's Corporate Leadership Team, to City Council and to Edmonton Fire Rescue Services personnel is an integral part of ensuring that Edmonton Fire Rescue Services is transparent and is held accountable for its decisions and actions.

#### REFERENCES

The Way Ahead, City of Edmonton Strategic Plan 2009-2018

## **PRINCIPLE 4.2**

EDMONTON FIRE RESCUE SERVICES SHALL BE OPEN TO THE ASSESSMENT OF FUTURE OPPORTUNITIES THAT ENHANCE REVENUE STREAMS AND IMPROVE EFFICIENCIES WHILE MAINTAINING APPROPRIATE LEVELS OF ESSENTIAL SERVICES.

#### **GUIDELINES**

Edmonton Fire Rescue Services will assess opportunities that help to enhance overall revenue streams and/or improve efficiencies in consideration of the following evaluation criteria. Opportunities should be considered that:

- 1. Quantifiably demonstrate a net reduction on the reliance property taxes and/or support improved long term sustainability of assets.
- 2. Can be equitably implemented and where performance measures can be effectively developed and monitored.
- 3. Take into account the feedback of potentially affected stakeholders.
- 4. Are accompanied by clear, transparent and justifiable guidelines.
- 5. Have no negative impact on essential service delivery or conflict with *Master Plan* directions.

#### RATIONALE

The City of Edmonton Strategic Plan, *The Way Ahead* focuses the City's efforts in delivering the greatest value of services that are most important to Edmontonians while managing the opportunities and challenges of our ever changing city. The plan provides a framework to help establish priorities and make informed decisions for the future.

Ensuring Edmonton's financial sustainability is one of the six 10-year goals identified in *The Way Ahead*. By ensuring Edmonton's financial sustainability, Edmonton Fire Rescue Services balances the demands placed on the City and the limited means to address these demands. Edmonton Fire Rescue Services will work towards enhancing revenue streams and improving operational efficiencies while fulfilling its mission.

#### REFERENCES

The Way Ahead, City of Edmonton Strategic Plan 2009-2018

## **PRINCIPLE 4.3**

EDMONTON FIRE RESCUE SERVICES SHALL FOLLOW AN INTEGRATED APPROACH TO ENSURING COMMUNITY SAFETY THROUGH FIRE PREVENTION, PUBLIC EDUCATION, EMERGENCY RESPONSE AND RESCUE SERVICES, MEDICAL AID, ENVIRONMENTAL PROTECTION AND EMERGENCY PREPAREDNESS PLANNING.

#### GUIDELINES

Edmonton Fire Rescue Services will use a collaborative and integrated process for ensuring community safety which includes the following characteristics:

- 1. Integrated services are delivered in the most effective, efficient and economical manner by leveraging the abilities of the most appropriate delivery agent.
- 2. Integrated services share accountability by clearly identifying roles and responsibilities, and equitably allocating resources, risks and rewards.
- 3. Integrated services shall support cross unit information gathering and sharing.
- 4. Integrated services are delivered with environmental responsibility in mind through continued maintenance and management of Edmonton Fire Rescue Services Enviso ISO 14001 certification.

# 4.3

#### RATIONALE

Edmonton Fire Rescue Services, as a critical link in the chain of survival, provides and/or supports a broad range of services which need to be effectively integrated to ensure overall community safety. These services include:

Responding to structure fires (i.e., single family homes, multi-residential, institutional, high rise, commercial and industrial buildings), vehicle fires, vehicle accidents, hazardous materials and fires in wildland areas.

Providing Mutual Aid response to surrounding municipalities and towns under terms of signed agreements.

Responding to life threatening medical aid events as Fire First Responders to support emergency medical services agencies.

Responding to emergency and non-emergency service calls or citizen assist including such areas as search and rescue, animal rescue, water leaks, electrical hazards, explosions, confined space, entrapment, train, rail, water rescue, salvage support, or lock-out of home or vehicles.

Supporting scene safety for emergency responders by providing traffic control or providing additional temporary lighting requirements.

Conducting fire inspections of structures to check for compliance with the Alberta Fire Code, including follow-up inspections to verify compliance, monitoring fire drills, issuing permits for open air burning, and business license approvals.

Supporting environmental responsibility by operating in the most environmentally conscientious manner, while ensuring personnel and public safety and serving as environmental stewards in daily operations.

Performing reviews of building project plans as they relate to emergency access, water supply sprinkler and fire alarm systems, flammable liquid storage facilities, and other fire-related matters, such as inspecting construction sites and above ground and underground tanks to ensure they are observing the Alberta Fire Code.

Increasing awareness through the provision of fire prevention and fire safety information to targeted at risk populations to help reduce the number of fires, fire-related injuries and fire-related deaths as well as the lag time in reporting a fire (time from the start of a fire to the time 911 is called).

REFERENCES Standards of Cover 2009, Edmonton Fire Rescue Services

## **PRINCIPLE 4.4**

EDMONTON FIRE RESCUE SERVICES SHALL RESEARCH INNOVATIVE PROGRAMS AND PARTNERSHIP OPPORTUNITIES THAT HELP CONTINUOUSLY IMPROVE OVERALL SERVICE DELIVERY, BUILD CAPACITY AND ENHANCE COMMUNITY OWNERSHIP.

#### **GUIDELINES**

Edmonton Fire Rescue Services will foster a culture of innovation and explore new partnership opportunities through top level commitment to:

- 1. Exploring and supporting the development of new ideas and partnerships that can help improve service delivery.
- 2. Encouraging and rewarding the participation and engagement of staff.
- 3. Accepting uncertainty by properly defining and minimizing associated risks.
- Effectively managing and implementing new solutions that will improve the organization regardless of the perceived scale (i.e., small incremental wins can be just as important as major transformational improvement initiatives).

FIRE RESCUE MASTER PLAN 2012

#### RATIONALE

Edmonton Fire Rescue Services takes great pride in its long history of protecting life, property and the environment in Edmonton. Edmonton Fire Rescue Services commitment to continuously improve services is demonstrated by these recent accomplishments:

In 2008 Edmonton Fire Rescue Services contracted the Center for Public Safety Excellence to facilitate a method to develop and implement a "Community-Driven Strategic Plan." It challenged internal and external stakeholders to look critically at paradigms, values, philosophies, beliefs and desires. It challenged individuals to work in the best interest of the "team." It provided staff an opportunity to participate in the development of their organization's long-term direction and focus.

In 2009 Edmonton Fire Rescue Services contracted the Center for Public Safety Excellence to help create an integrated response management plan Standards of Cover document. This initiative required that a number of areas be researched, studied, and evaluated so that a report could be developed (Standards of Cover) which identified areas such as risk assessment, critical task analysis, agency service level objectives, and distribution and concentration measures in order to provide policy recommendations.

In 2010 Edmonton Fire Rescue Services received full accreditation status from the Commission on Fire Accreditation International (making Edmonton only the third municipality in all of Canada at that time to receive this official recognition). The goal of the Commission on Fire Accreditation International is to transform fire departments from tactical agencies to strategic agencies. The process validated the work Edmonton Fire Rescue Services has been doing to accomplish its mission and demonstrated that it is on the path to becoming a world-class fire service. The accreditation was also a testimony to staff's individual and team efforts to make Edmonton a safer place to live.

Edmonton Fire Rescue Services continually looks at ways to improve service delivery through the effective and efficient use of resources and technology and by reviewing and adjusting systems and processes.

#### REFERENCES

2009-2013 Strategic Plan, Edmonton Fire Rescue Services Standards of Cover 2009, Edmonton Fire Rescue Services



Edmonton Fire Rescue Services routinely reports on a wide range of key performance indicators covering all aspects of the service. The following represents a selection of those indicators linked to direct public service.

#### COMMUNICATION TIME (% WITHIN 90 SECONDS)



#### 90% Target

**Communication Time** is measured from when the centralized call for Fire Rescue support is received until the station is notified.

Fire Rescue's goal is for Communication Time to be under 90 seconds, 90% of the time.

Following transition of medical call evaluation and ambulance dispatch to Alberta Health Services in 2011, communication time for medical calls is no longer applicable.



#### TURNOUT TIME (% WITHIN 90 SECONDS)



#### TRAVEL TIME (% WITHIN 240 SECONDS)

#### TOTAL RESPONSE TIME (% WITHIN 240 SECONDS)





Total Response Time is

measured from the time dispatch receives the call until the time the first pumper arrives on scene.

Fire Rescue's goal is for Total Response Time to be under 7 minutes, 90% of the time. Total Response Time is comprised of Communications Time Turnout Time and Travel Time.

#### FULL FIRST ALARM ASSIGNMENT (% WITHIN 480 SECONDS)



#### FIRES CONTAINED (% CONTAINED IN ROOM OF ORIGIN)



#### 90% Target

If a fire is contained within the room of origin, the building is usually saved. If the fire escapes the room of origin, the building is usually severely damaged, and the fire crews must work to protect other buildings.

This indicator shows how often the crews are able to contain the fire to the room of origin. Files that have been have not been approved and forwarded to the Fire Commissioner are used as an estimator.



#### FIRE LOSSES (LOSS IN \$ PER \$100 MILLION IN ASSESSED VALUE)

Fire loss is the estimated value of property lost due to fire in each year, expressed as a ratio of the total assessed value of all properties in the city for that year.

#### FIRE EVENT CALL VOLUME (PER 1,000 POPULATION)



Chart reflects the annual number of fire event calls received per thousand people.



#### ACCREDITATION

A process by which an association or agency evaluates and recognizes a program of study or an institution as meeting certain predetermined standards or qualifications. It applies only to institutions or agencies and their programs of study or their services. Accreditation ensures a basic level of quality in the services received from an agency.

#### AT RISK POPULATIONS

Populations whose members may have additional needs, which includes but is not limited to Aboriginals, seniors, persons with disabilities, low income groups, school and preschool age children.

#### COMMISSION ON FIRE ACCREDITATION INTERNATIONAL (CFAI)

The Commission on Fire Accreditation International (CFAI) is a non-profit organization committed to assisting and improving fire and emergency service agencies around the world in achieving organizational and professional excellence; to provide continuous quality improvement and enhancement of service delivery to the community. CFAI is governed by an 11-member commission representing a cross-section of the fire service industry, including fire departments, city and county management, code councils, the U.S. Department of Defense, and the International Association of Firefighters.

Their goal is to transform fire departments from tactical agencies to strategic agencies. In order to become accredited, Edmonton Fire Rescue Services had to develop three documents:

- 1. The Community Driven Strategic Plan; which was based on feedback from internal and external stakeholders and set out future goals and direction for Edmonton Fire Rescue Services.
- 2. A Standards of Cover document; which reviewed Edmonton Fire Rescue Services operational processed and set of benchmarks and performance measures, and
- 3. A Self Assessment of the branch to look at how Edmonton Fire Rescue Services manages its business, its relationships and its personnel and how well these systems work.

Once complete, a group of peers from other departments across North America conducts an external peer assessment as the final step towards accreditation.

#### COMMUNICATION TIME

The time between when the centralized call for Edmonton Fire Rescue Services support is received until the station is notified.

#### CONSEQUENCE

Consequence is an evaluative criteria used in the risk assessment model. There are two components: life safety (the amount of personnel and equipment required to rescue or protect the lives of occupants from life — threatening situation which include both fire and EMS) and economic impact (the losses of properties, income or irreplaceable assets).



#### FULL FIRST ALARM ASSIGNMENT

This is the personnel, resources and apparatus that are dispatched upon notification of a structural fire. While the responding apparatus may vary depending on the nature of the fire, a minimum of 16 firefighters are required for a full first alarm assignment.

#### **GUIDELINES**

Guidelines further define the policy statements and/or establish parameters within which the policy is to be implemented. They are statements that define in more precise terms what is required relative to the policy direction. Guidelines may include statements that are mandatory in nature; that is, they may include the terms, "shall" or "will."

#### INSURANCE ADVISORY ORGANIZATION

The Insurance Advisory Organization is an organization that conducts reviews and assessments of Edmonton Fire Rescue Services and provides Insurance Ratings for Commercial and Residential Fire Insurance. A Fire Underwriters Survey is used by Insurance Advisory Organization to provide data on Public Fire Protection Classifications.

#### **MASTER PLAN**

A combination of the organization's strategic plan and its operational plans. A master plan takes various plans and integrates them into one document. Master plans help define the anticipated future of the community's demographics and how the community is expected to develop or change in the timeframe covered by the master plan.

#### MISSION

An enduring statement of purpose, the organization's reason for existence. Describes what the organization does, for whom it does it, and how it does it.

#### NATIONAL ASSOCIATION OF EMERGENCY DISPATCH (NAED)

The National Academy of Emergency Dispatch provides structured call evaluation protocols for use in evaluation and dispatch of emergency resources. The NAED Emergency Medical Dispatch protocols classify emergency medical calls in 5 categories

- A Non Emergency Calls
- B Emergency Non Life Threatening
- C Potential Life Threatening
- D Emergency Life Threatening
- E Emergency Life Threatening Immediate

#### NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)

An international not-for-profit membership organization with over 75,000 members in 100 countries. [The National Fire Protection Association is the only industry recognized standard for the provision of Fire Services. It is the world's leading advocate of fire prevention and public safety and has over 300 safety codes and standards.

#### POLICY

Policies are formal statements that set direction and standards of performance that guide and determine current and future state. Policies are imposed on the City by itself or are imposed on the City by other orders of government.

#### PRINCIPLES

Principles provide Edmonton Fire Rescue Services with the consistent direction that Administration will undertake to ensure City Policy C523A is implemented.

#### PROBABILITY

Probability is an evaluative criteria used in the risk assessment model, which identifies the likelihood that a particular event will occur within a given period of time. An event that occurs daily is highly probable. An event that occurs only once in a century is very unlikely. Probability then is an estimate of how often an event will occur.

#### REFERENCES

These include Legal references that refer to any statutes, regulations, bylaws or other legal authorities relevant to the policy. Other references may refer to City Council policies, Administrative policies or industry standards. All references appear at the end of the related policy.

#### **RESPONSE TIME**

The time that begins when Edmonton Fire Rescue Services units are in route to the emergency incident and ends when units arrive at the scene.

#### SERVICE DELIVERY STANDARDS

The Quality Management Plan identifies service delivery standards specific to Edmonton Fire Rescue Services in accordance with the Alberta Fire Code.

#### SERVICE LEVEL TARGETS

Service Level Targets are long term targets for service delivery that Edmonton Fire Rescue Services strives to achieve. Progress towards, and ultimate achievement of these targets is subject to annual funding through the corporate budget process. These targets do not mandate a "standard" of service.

#### SERVICE QUALITY

A performance indication that identifies the degree to which customers are satisfied with a program, or how accurately or timely a service is provided.

#### STAKEHOLDER

Any person, group, or organization that can place a claim on, or influence, the organization's resources or outputs, is affected by those outputs, or has an interest in or expectation of the organization.

#### STRATEGIC PLAN

A long-range planning document that defines the mission of the agency, and broadly identifies how it will be accomplished and the framework for more detailed annual business and operational plans.

#### THE WAY AHEAD

The City of Edmonton's top strategic plan, The Way Ahead helps set direction and align all City Department priorities as we work to make Edmonton the city we want it to become by 2040. The Way Ahead outlines six 10-year Strategic Goals that were subsequently developed into long-range strategic plans:

Preserve and Sustain Edmonton's Environment – *The Way We Green*; Improve Edmonton's Livability – *The Way We Live*; Transform Edmonton's Urban Form – *The Way We Grow*; Shift Edmonton's Transportation Mode – *The Way We Move*; Ensure Edmonton's Financial Sustainability – *The Way We Finance*; and Diversify Edmonton's Economy – *The Way We Prosper*.

#### TRAVEL TIME

The time between the Edmonton Fire Rescue Service units leaving the station until the first pumper arrives on scene.

#### **TURNOUT TIME**

The time between when Edmonton Fire Rescue Service units receive notification of an emergency call to the time when fire trucks begin responding.

#### VISION

An idealized view of a desirable and potentially achievable future state - where or what an organization would like to be in the future.



