

# Fire & Rescue Response

*Includes:*

- *Fire and Rescue Response*
- *Fire Investigations*

## Service Overview

### DESCRIPTION

To provide quick, proficient, emergency and non-emergency fire suppression and rescue assistance to victims of fire, accidents, and other disasters or emergencies in order to prevent or minimize loss of life or property. This includes fire suppression, notification and evacuation of citizens, rescue services including motor vehicle extrication, high angle, trench, elevator, water, and ice rescue, investigation and mitigation of carbon monoxide or other gas leaks, and other hazardous materials incidents.

Additional contributions include standby fire and rescue service at public events, support to public education programs, supplement fire inspection and by-law enforcement program, fire investigation services potentially leading to offender identification, arrest and/or counselling in regard to incidents of deliberately set fires and response to medical emergencies.

### KEY GOALS

1. Improve capacity to effectively respond to emergencies and disasters in a manner that is financially sustainable for the citizens of Winnipeg.
2. Invest in technology, equipment, and staff training to maximize safety for all emergency responders as well as the public.
3. Invest in technology, equipment, and staff training to protect the environment.
4. Ensure a respectful work environment and positive public image.

### SERVICE LEVEL STATISTICS

Description	2003	2004	2005	2006	4 Year Average
Total Fires	3,520	3,262	3,375	3,651	3,452
Alarm – No Fire	6,717	6,902	7,110	6,767	6,874
Gas/Odor/Hazardous Materials Emergencies	1,023	1,075	1,184	1,088	1,093
Miscellaneous Emergencies	2,947	2,859	3,082	2,624	2,878
Rescue Emergencies	103	102	186	203	149
Fire Investigations	809	795	743	708	764
Arson Determinations	283	311	303	355	313
Arson-Related Apprehensions	122	118	118	162	130
Estimated Property Loss Due to Fire*	\$36.8 M	\$38.3 M	\$41.6 M	\$51.8 M	\$42.1 M

\* Note: Property loss values are not adjusted for increasing property values and building costs.

## Strategic Direction

### LINK TO PLAN WINNIPEG

4A-06 Provide Emergency Response Services  
4A-07 Prepare for Disasters and Emergencies  
5A-01 Promote Environmentally-Responsible Decision-Making  
5A-03 Address the Danger of Hazardous Wastes

### SYNOPSIS OF POLICY DIRECTION

A healthy community is one which provides the proper environment for its citizens to live, learn, play, interact, work and grow older. People want to feel safe and be safe at work, in their homes, neighbourhoods and the downtown day and night.

Fire Investigations is provided through a tripartite partnership with the Winnipeg Police Service and the Manitoba Office of the Fire Commissioner (OFC). Under section 25(1) of *The Fires Prevention and Emergency Response Act* of Manitoba, the Fire Investigation Unit's mandate is to investigate the cause, origin, and circumstances of fires and explosions congruent with existing guidelines and standards such as National Fire Protection Association (NFPA) 1033, and NFPA 921.

The Manitoba Fire Code (adopted by Winnipeg Fire Prevention By-law) and the Manitoba Building Code (adopted by Winnipeg Building By-law), provide safety measures for the occupants of buildings and for firefighters. These regulations for public health, fire safety, egress, and structural sufficiency, establish a standard of safety for the construction of buildings including additions, alterations, renovations, upgrading or a change of occupancy.

### KEY FACTORS INFLUENCING SERVICE DELIVERY

#### Environmental & Emerging Issues

The potential for terrorist activities requires expenditure of resources and training to equip all responders with the ability to effectively cope with chemical, biological, radiological, nuclear, explosive (CBRNE) incidents, and to develop Urban Search and Rescue capabilities.

The emergence of these large-scale threats requires additional resources to conduct joint training operations with numerous other agencies including Manitoba Emergency Measures Organization, Winnipeg Airport Authority, Canadian Forces, Winnipeg Police Service, Office of the Fire

Commissioner, Social Services, Canadian Science Centre for Human and Animal Health (virology lab), etc. to ensure effective cooperation and management in large-scale emergencies.

The presence of the Canadian Science Centre for Human and Animal Health (virology lab) in Winnipeg requires additional joint exercises to safeguard the public in an emergency, and ensure an effective response.

The increased incidence and sophistication of illegal drug operations requires ongoing education and training of all personnel in regard to Hazardous Materials protocols.

Proliferation of chemical and toxic products will require more resources and training for hazardous materials responses.

Increasing fuel prices have a significant impact on the cost of providing emergency response services.

#### Technology/Industry Advancements

Increased use of cell phones for 9-1-1 reporting has a negative impact on the ability to process calls and differentiate between multiple reports for the same incident. It also negates the value of address identification that exists in the hard-wired telephone system.

Modern fleets are more reliable and many modern fire suppression apparatus are multi-functional, which increases the effective equipment available.

The fire suppression industry has seen increased requirements for fireground accountability and tracking of firefighters, which requires additional technological investments.

While Fire Departments across North America have long been involved in the provision of pre-hospital emergency medical care, their level of training and intervention has been increasing over the last decade.

Technological advances in dispatch systems have enabled a shorter time span between the placement of the 9-1-1 call and responder arrival. Access to Automatic Vehicle Location (AVL) technology facilitates more efficient 'closest unit' dispatch of units.

The implementation of electronic patient care reporting with wireless technology has placed computers in our operational units which has increased our information capabilities in the area of fireground safety and emergency incident information.

### **Safety/Environmental Regulations**

Environmental regulations require investment in new hazardous materials equipment and procedures to minimize the accidental introduction of hazardous materials into the environment as a result of industrial and other accidents, and regulate the disposal of hazardous materials effluent.

Federal and Provincial guidelines require changes to emergency response methodologies in light of the recent increased threat of terrorism (Chemical Biological Radiological Nuclear Explosive (CBRNE)).

Recent scientific evidence of exposure hazards to firefighters through the enacting of presumptive legislation has required an increased emphasis on safety equipment and procedures in the department.

Changing Environmental Protection Agency (EPA) emissions regulations requires investment in new and compliant apparatus and equipment.

The introduction of new NFPA safety standards for Self-Contained Breathing Apparatus (SCBA) has created a requirement to replace the existing SCBA equipment.

Department General Operating Guidelines (GOGs) are being revised to reflect an increased focus on safety and introduce new practices.

### **Building/Construction**

The increased use of early warning systems such as smoke detectors, monitored systems, automatic extinguishing devices and residential sprinkler systems decreases service demands, and increases safety for fire suppression personnel.

Increased emphasis on fire safety regulations, combined with technological advances in construction methods and materials used, has overall decreased the potential for fires to occur, improved citizens' egress, and reduced the fire involvement potential.

Some new construction standards have created a potential for sudden catastrophic structural failure in fire situations.

The use of advanced rescue technology such as the thermal imaging camera has improved the ability to locate missing or trapped individuals, and identify hot spots.

### **Neighborhood Growth/Demographics**

Population increases in Winnipeg over the last several years, have been higher than previously experienced, causing an increase in demand that offsets the decrease due to technological changes.

Due to neighborhood growth over the last decade, existing station locations no longer match current

demographics, and new stations and/or units may be required to provide adequate fire and rescue coverage in new neighborhoods.

Urban sprawl has contributed to the existence of aging and deteriorating buildings in the city core which increases the risk of more serious fires and injury.

### **Community Relations**

Uniformed personnel are held to a higher standard of public trust and need to recognize that their job goes beyond the basic skill sets required to perform their specified duties. A community relations function is a vital component of their jobs and requires greater appreciation of cultural, ethnic and gender differences.

The demand for Fire and EMS services at public and private functions is increasing.

In the interest of risk management there is increased emphasis on continuous quality improvement activities, proper documentation and personal accountability.

## **SUMMARY OF GOALS AND STRATEGIES**

- 1. Improve capacity to effectively respond to emergencies and disasters in a manner that is financially sustainable for the citizens of Winnipeg.**
  - Integrate Fire and EMS Communications Centre operations and continue to improve dispatch processes to reduce call processing and response times.
  - Invest in cost effective, multi-use apparatus such as rescue-pumpers, and quints.
  - Increase thermal imaging capabilities.
  - Review and revise emergency disaster plan and procedures.
  - Secure funding for Chemical Biological Radiological Nuclear (CBRN) and Urban Search and Rescue (USAR) capabilities.
  - Invest in appropriate technology to increase capacity to respond to HazMat issues related to industrial disasters and illegal drug operations.
  - Expand training capacity and apply new training methods and procedures for emerging areas of service delivery. Develop partnerships with organizations and institutions to deliver training programs.
  - Secure long-term funding for Fire Investigation Unit to investigate charge and convict those who deliberately set fires.

**2. Invest in technology, equipment, and staff training to maximize safety for all emergency responders as well as the public.**

- Review and update workplace practices to be compliant with Workplace Safety and Health legislation and industry standards.
- Improve fireground safety and communications through the use of telemetry and computerized systems
- Continue use of flashover simulator training for firefighters
- Improve driving skills through use of driver simulator training for all emergency responders
- Replace existing SCBA, with equipment compliant with new NFPA standards to improve firefighter safety.

**3. Invest in technology, equipment, and staff training to protect the environment.**

- Use environmentally-friendly fire suppression products and techniques.

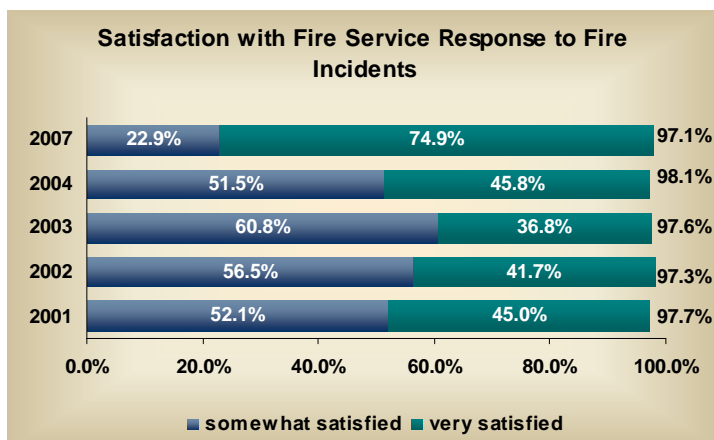
- Invest in technologically advanced hazardous materials equipment and training to minimize the accidental introduction of hazardous materials into the environment as a result of industrial and other accidents, and facilitate disposal of hazardous materials effluent in accordance with existing environmental regulations.
- Invest in fire apparatus that meets Environmental Protection Agency (EPA) emissions requirements.
- Increase staff awareness and revise practices to minimize fire apparatus idling time.

**4. Ensure a respectful work environment and positive public image.**

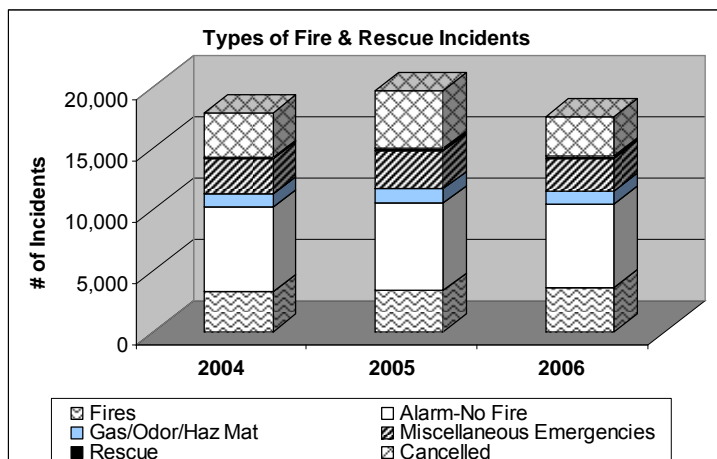
- Standardize recruitment process.
- Expand commitment to respectful workplace philosophy and training.
- Employee recognition and Awards Day.

# Performance Information

## CITIZEN SATISFACTION



Citizen satisfaction with fire service response to fire incidents remains high.

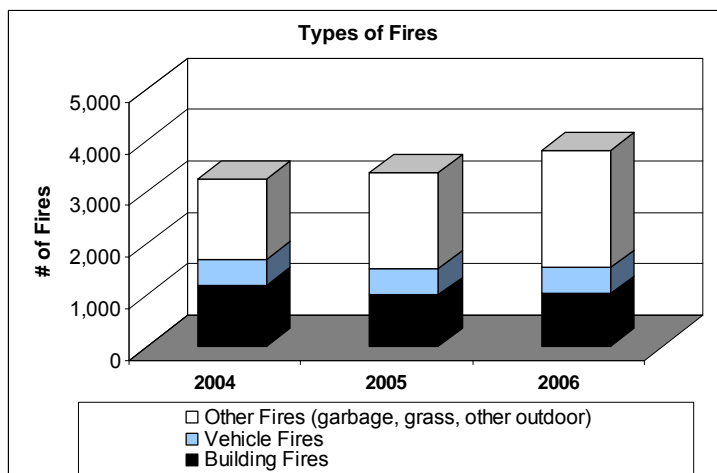


In 2006, the WFPS attended 17,538 Fire & Rescue incidents (this excludes motor vehicle collision and other medical calls). The overall number of incidents has dropped slightly, however the majority of this change can be attributed to calls where fire apparatus is cancelled en route, or upon arrival at an incident. The number of actual incidents mitigated continues to rise slightly over previous years.

Alarm-No Fire includes false and accidental alarms.

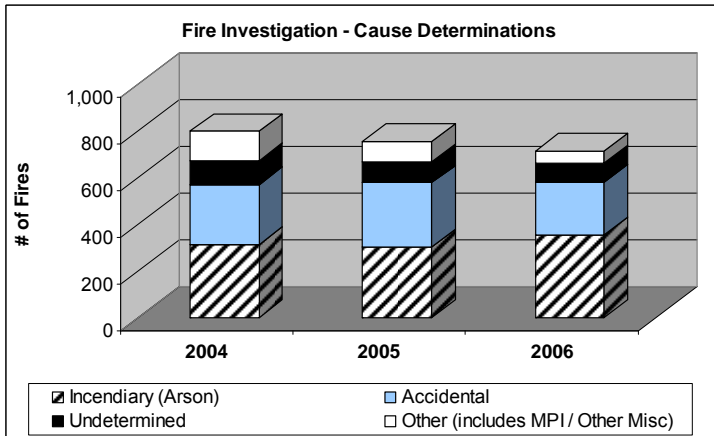
Miscellaneous Emergencies includes bomb threats, explosion (no fire), permitted burning, etc.

Rescue emergencies include high-angle, elevator, trench, water and ice rescue incidents.



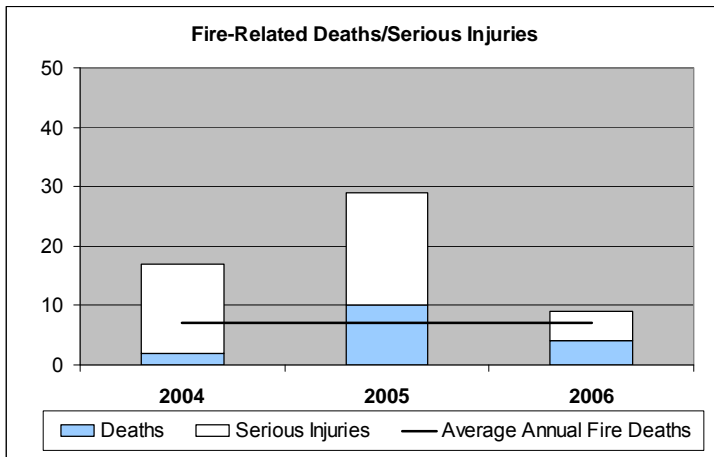
In 2006, the WFPS attended a total of 3,651 fires. Compared to previous years the number of fires has continued to rise very slightly, as has the number of building fires, at 1,029.

The increases in total fires experienced over the past two years, are mostly attributed to an increase in nuisance fires.



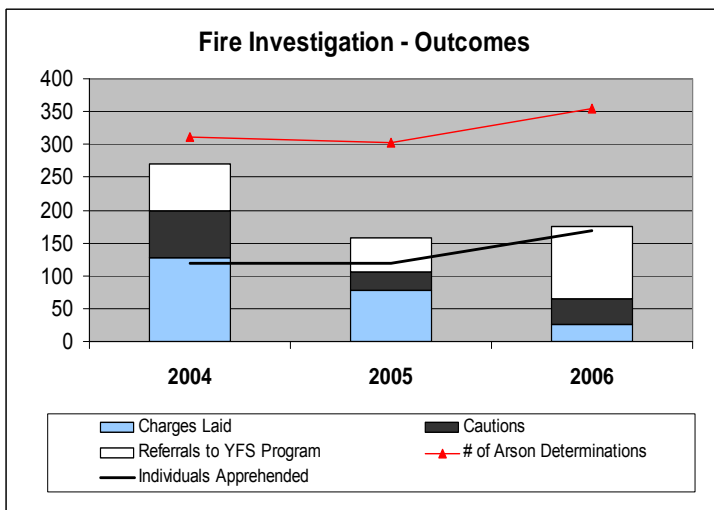
Of the 708 Fire Investigations undertaken in 2006, 82% resulted in a positive cause determination with 50% as a result of Arson.

## EFFECTIVENESS MEASURES



Fire-related deaths and serious fire-related injuries increased significantly in 2005 over 2004, and decreased again for 2006, with 4 fire-related deaths.

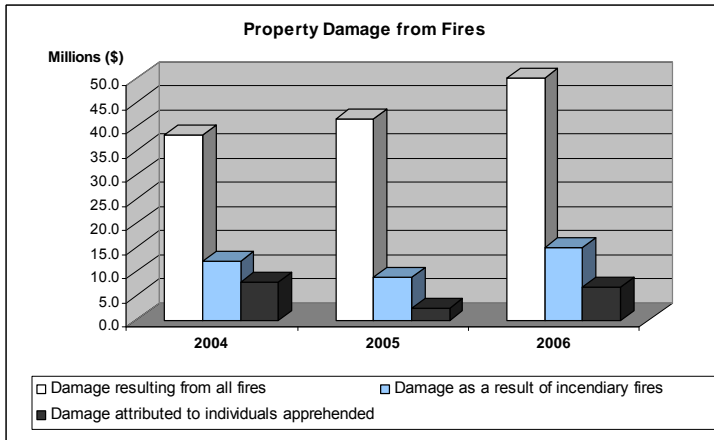
Over the last 10 years, the trend in fire deaths is decreasing, with the average annual number of civilian deaths being 7.



Of the 355 investigated fires determined to be as a result of arson, 169 individuals were apprehended.

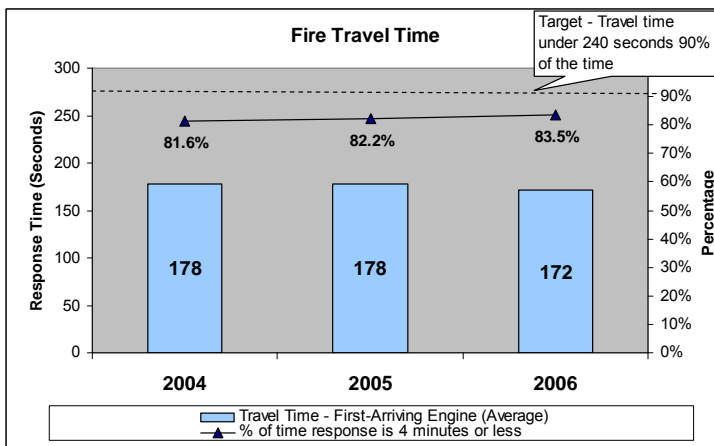
Although the number of charges and cautions have been greatly reduced, the number of individuals apprehended has been increasing.

The increase in referrals to the Youth Fire Stop Program for 2006 demonstrates the increasing number of children apprehended. In 2006, 57 youths aged 12 to 17, and 91 children under 12 were apprehended.



The overall property damage as a result of fires continues to rise significantly, partially as a reflection of increasing property values and construction costs.

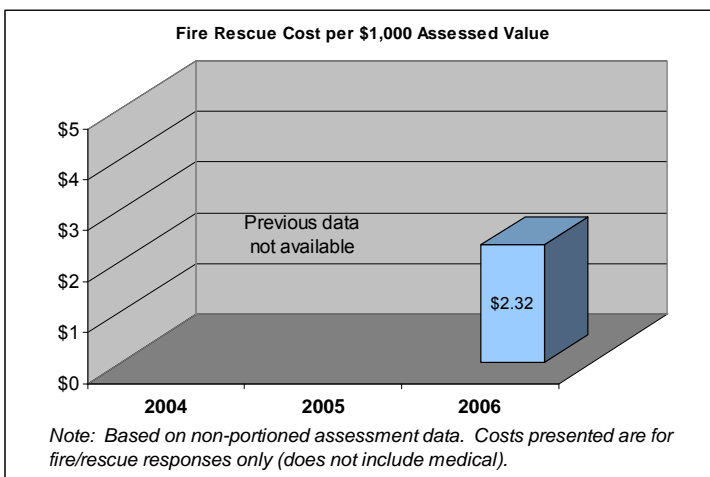
The damage attributed to arson fires is 29.2% of the overall property damage incurred.



In 2006, the average first-unit response time (travel time) to fire and rescue incidents was 172 seconds, an improvement of 6 seconds over previous years.

The WFPS target is for the first-arriving engine to arrive within 4 minutes (240 seconds), 90% of the time. In 2006, this occurred 83.5% of the time, an improvement of 2% since 2004.

## EFFICIENCY MEASURES



For every \$1,000 of assessed property in 2006, Winnipeg spent \$2.32 on fire & rescue response.