

COMMUNITY FIRE SAFETY ASSESSMENT

2010



Produced by Strathclyde Fire & Rescue Community Safety Partnership Unit



STRATHCLYDE
FIRE & RESCUE



making our communities safe places to live, work and visit

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INTRODUCTION

This Community Fire Safety Assessment (CFSA) has been produced to complement existing Community Safety Directorate strategy and planning. It is based upon established strategic assessment principles used by partner agencies and services, providing an analysis of relevant operational data and information to support decision making and deployment of Community Safety resources. A review of the previous five years statistical fire data has been undertaken that identifies current community safety priorities and informs the development of future community fire safety policy, media strategies and action plans.

Community Safety

Community Safety is about ensuring people are safe from crime, disorder and danger, free from injury and harm and communities are socially cohesive, tolerant and resilient, able to take responsibility for their own safety and also ensure the safety and well being of others.

National Outcomes

The Scottish Government and COSLA have set out 15 national outcomes linked to local authority Single Outcome Agreements (SOAs). All but two local authorities within SFRs service area have included fire related performance monitoring targets within SOAs.

Typically these include indicators such as:-

- The number of fires in the home
- The number of fire casualties (dwellings)
- The number of deliberate fires (primary and secondary)

- The number of fires in industrial and commercial premises (including public buildings)

Since fire and other emergencies are usually caused by or involve people, for comparison purposes performance indicators are often also recorded as rates per population.

In terms of strategic outcomes SFR has a responsibility to work with others to ensure the following:

National outcome 9 –

We live our lives safe from crime, disorder and danger.

National outcome 6 –

We live longer, healthier lives.

National outcome 11 –

We have strong, resilient communities where people take responsibility for their own actions and how they affect others.

National outcome 15 –

Our public services are high quality, continually improving, efficient and responsive to local people's needs

Fire and Rescue Services are also expected to make a contribution to reducing antisocial behaviour and incivility as part of the National Antisocial Behaviour Framework – Promoting Positive Outcomes. At present there is no requirement for Local Authorities to consult Chief Fire Officers when preparing or reviewing ASB strategies consequently not all contain sufficient information about levels of deliberate fire setting and fire related offending.

Current Picture

Due to underlying health and social issues, the twelve constituent local authorities comprising SFR service area account for a disproportionately high percentage of fire and fire related antisocial behaviour, in comparison to other areas across Scotland and the UK. Given that the service area comprises a diverse mix of urban, rural and island communities with concentrations of industrial and commercial enterprises, a complex transport infrastructure and unpredictable weather patterns. Operational demand is high and the range of operational activity undertaken extensive, in comparison to many other Fire and Rescue Services.

Within the last few years there have been significant efforts by the Scottish Government and partner agencies to collectively tackle a broad range of community safety issues aimed at improving public safety and wellbeing. These include the introduction of legislative measures, to reduce crime and tackle antisocial behaviour; manage neighbourhoods, improve health, reduce alcohol and drug misuse and improve safety on our roads and in the home. Local Authorities, public services and other organisations are beginning to make a significant impact through collaborative working, information sharing and evidence based resource deployment.

There has also been an increased understanding about the impact that fire has upon the environment and in particular the effect of carbon and other fire emissions on climate change. Opportunity exists to have fire related environmental issues factored into environmental policy and planning at organisational and Local Authority level.

In recent years more effective central planning and prioritising of community fire safety, together with joint problem solving and action planning at local level has been instrumental in controlling operational demand.

In the short to medium term current and ongoing financial constraints may mean that community safety partners could struggle to maintain existing levels of service and sustain the lower levels of demand achieved. In the medium to long term sustainable improvement in community safety can only be achieved by working in collaboration with others to address the underlying causes such as social deprivation, health inequalities and addiction.

Fig 1: Percentage Breakdown of Operational Demand 2005/6 – 9/10

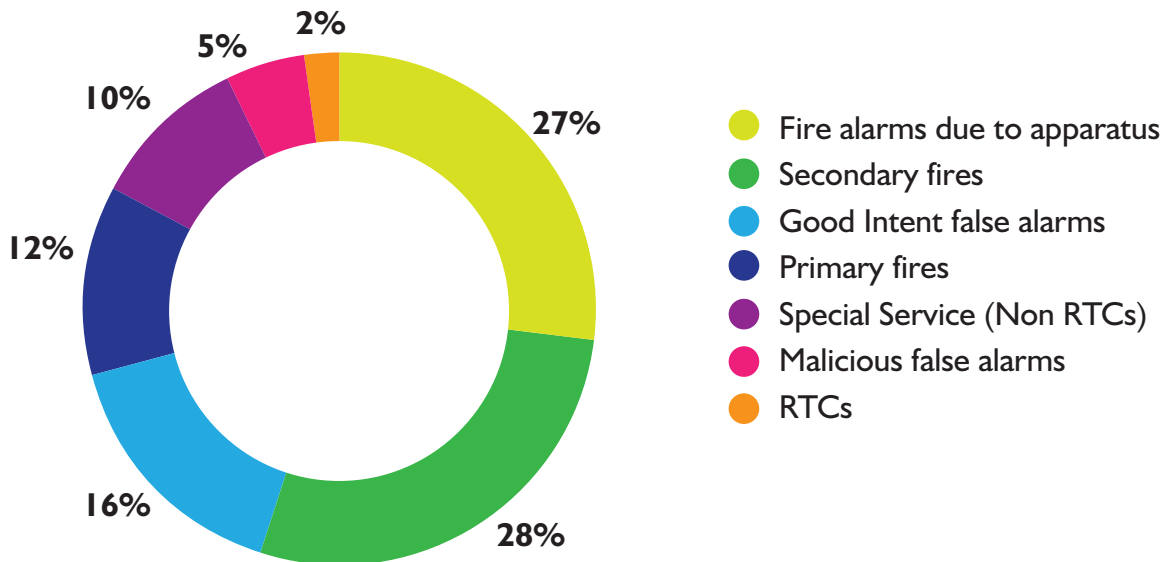
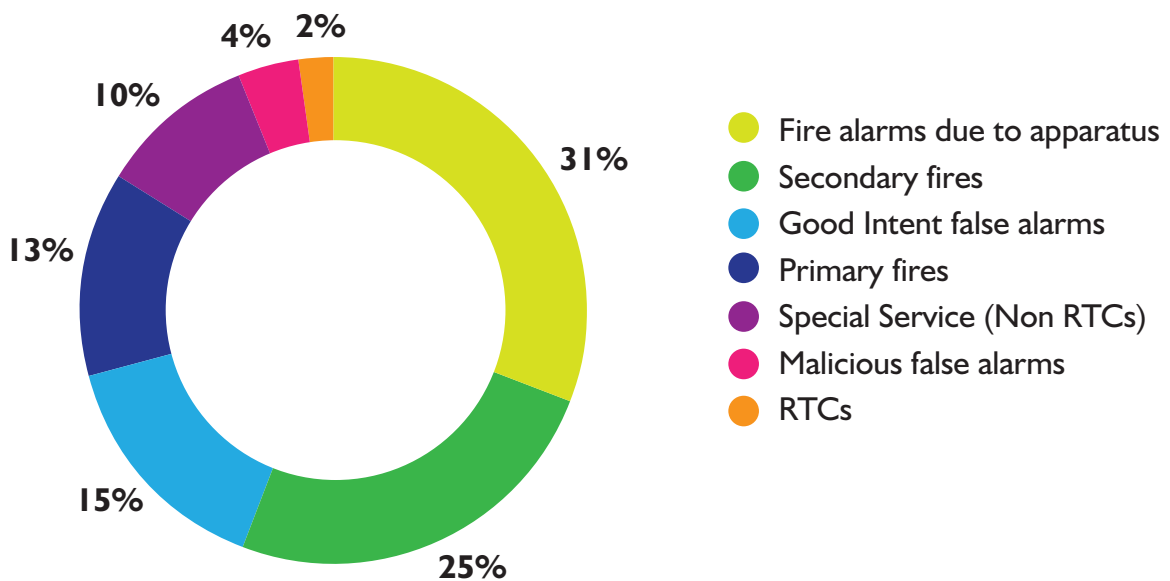


Fig 2: Percentage Breakdown of Operational Demand 2009/10



Operational Demand

The CFSA reports on levels of operational demand over a rolling five year period, to determine operational trends and provide contextual information about the societal and other factors that affect or influence service demand. A simple 'risk assessment matrix' has been used to focus upon key issues and determine community fire safety priorities.

Patterns of operational activity are unequal and uneven across SFRs nine service delivery areas and reference should be made to existing SFR area/local authority 'strategic assessments' and operational data to determine localised community fire safety priorities and action plans.

However by reviewing collective data a number of assumptions can be made and shared or service area wide community safety priorities can be identified and actioned.

With the exception of high risk or special premises, fire demand is usually concentrated within and around the most deprived areas or neighbourhoods within both rural and urban areas. As a generalisation fire and fire vandalism is caused by people therefore population should be factored into the datasets reviewed to measure and monitor incident rates per local authority area. This has the benefit of comparing levels of service demand and allows resources to be targeted within areas giving rise to the greatest demand and arguably where the needs of the community are greatest. In future years the overall population is expected to increase and this will have a proportionate effect upon both service wide and local operational demand. Currently there is a downward trend in

rates of deliberate fire setting; fire related antisocial behaviour and accidental fires in homes. Fire in commercial premises (which had decreased over time) together with unwanted fire alarm signals from automatic fire detection system have increased.

Strategic Outcomes

- **A reduction in the overall number of incidents attended**
- **A significant reduction in deliberate fire setting and fire related antisocial behaviour mainly as a consequence of a reduction in secondary fires**
- **A reduction in the number of fires in the home and a consequent reduction in fire casualties**
- **Improved control and management of unwanted fire alarm signals**
- **Improved management and targeting of home fire safety visits**

Table 1: Summary of Operational Demand Over Five Years

Incident Type	Total	2005 - 2006	2006 - 2007	2007 - 2008	2008 - 2009	2009 - 2010
Fire alarms due to apparatus	75,010	12,668	13,938	15,018	17,044	16,342
Secondary fires	79,466	17,686	17,111	16,610	15,003	13,056
Good intent false alarms	44,606	10,274	10,185	9,315	7,292	7,540
Primary fires	35,315	7,674	7,421	6,839	6,635	6,746
Special Service (Non-RTC's)	28,773	6,135	6,795	5,350	5,055	5,438
Malicious false alarms	12,956	3,223	3,133	2,694	2,102	1,804
RTC's	6,380	1,206	1,311	1,438	1,317	1,108
Total	282,506	58,866	59,894	57,264	54,448	52,034

The CFSA has assessed and ranked operational fire demand in terms of frequency/probability and severity/impact to identify the following corporate community fire safety priorities.

Table 2: Community Fire Safety Priorities

2009/10 Community Safety Assessment - Demand Reduction Matrix							
Incident Type	Frequency (Probability)	% of demand	Severity (Impact)	Average cost	Total Cost (£ M)	Score	Rank
Fire related ASB	2,598	5%	4	2,080	5,403,840	10,392	-
Deliberate Fires	12,904	24.8%	5	-	90,503,260	64,520	1
Del Primary	2,607	5.0%	7	26,500	69,085,500	18,249	-
Del Secondary	10,297	19.8%	3	2,080	21,417,760	30,891	-
UFAS	16,342	31.4%	2	2,080	33,991,360	32,684	2
FAGI	7,540	14.5%	1	2,080	15,683,200	7,540	-
Fires in Dwellings	3,086	5.9%	9	25,500	78,693,000	27,774	3
Fires in Ind/Com	1,423	2.7%	9	35,000	49,805,000	12,807	4
SS (Non RTCs)	5,438	10.4%	2	2,080	11,311,040	10,876	-
SS RTCs	1,276	2.4%	6	2,080	2,654,080	7,656	-

High Priorities

- Deliberate fire setting
- Unwanted automatic fire alarm signals
- Accidental fires in the home
- Fires in commercial and industrial premises*

* Ranked to take account of the potential for multi loss of life and very large social, economic and environmental risks resulting from fires in industrial and commercial buildings. Together with the need to effectively discharge statutory enforcement responsibilities under the Fire Scotland) Act 2005.

Thematic Issues

- Working with young people
- Antisocial behaviour and incivility
- Alcohol and addiction
- Ageing population (health and inequality)

In addition equality and diversity issues require to be monitored and impact assessed in respect of all community safety policies and interventions.

Areas of concern include:

- The high volume of deliberate primary and secondary fires
- The high volume of unwanted fire alarm signals
- The increasing cost of fires in industrial and commercial premises

Community Planning and Community Safety Partnerships

The ongoing economic situation, health, education, housing and climate change, together with the need to effectively control crime and antisocial behaviour, whilst providing value for money, will continue to influence the broader community safety agenda. In future external funding and support for community safety and or thematic issues may be restricted or increasingly difficult to access as budgets are tightened. As central funding reduces, pan local authority service delivery and inter agency information sharing, collaboration and partnership working will become a necessity and developing mutually beneficial 'commercial partnerships' may become increasingly important.

Alcohol and Addiction

A significant number of accidental fires in dwellings across SFRs service area are due to carelessness, negligence or an inability to rationally respond to a developing fire situation as a direct result of alcohol or drug consumption. Alcohol consumption in particular is responsible for a large number of fire and fire casualties in the home and often the underlying cause of fire related antisocial behaviour. It is clear that if alcohol and addiction problems can be addressed community fire safety will improve and there would be a corresponding reduction in demand for the services of SFR. Historically most alcohol related fires and fire deaths occurred at weekends or festive period. However the large number of persons reliant upon 'state benefits' often paid in midweek mean that alcohol related fires occur throughout the week. There is a strong case for continuing to promote the 'don't fuel fire with alcohol' media message and the high

percentage of fires in the home where alcohol consumption has been a contributory factor is evidence of the need to raise public awareness that consuming even a moderate amount of alcohol considerably increases the probability of fire in the home. There has been notable success using health, social services and addiction services to target 'hard to reach' 'hard to influence' individuals such as those suffering from alcohol and addiction.

Antisocial Behaviour

Opportunity exists for SFR to contribute to the aims and objectives of the National ASB Framework – Promoting Positive Outcomes by ensuring that deliberate fire setting and fire related ASB data is fed into Local Authority/Police ASB strategies and action plans.

Many urban and some semi rural areas have a significant problem with deliberate fire setting and fire related antisocial behaviour and operational response costs are high particularly in RDS areas. Overall the level of fire related antisocial behaviour remains high in comparison to elsewhere in Scotland and a very high proportion of deliberate fire setting involves refuse or rubbish in containers or combustible waste fly tipped on open ground. In areas affected by recession and or places undergoing housing regeneration, fire in derelict or unoccupied premises continues to be a problem.

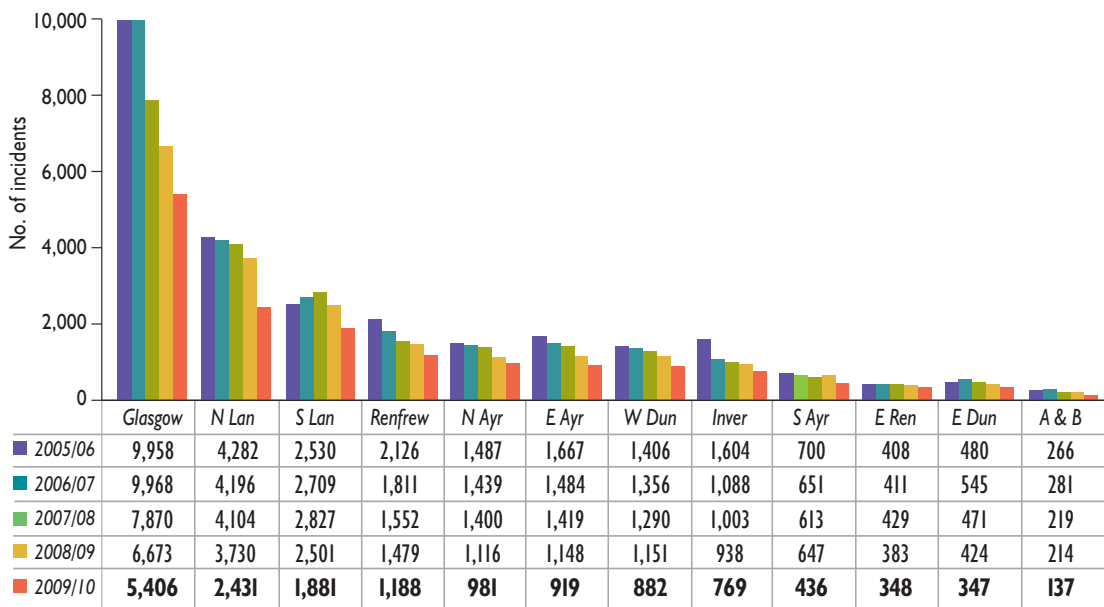
Fire related antisocial behaviour increases at weekends and holiday periods. It peaks during warm dry weather and also during the bonfire and firework period. Recent multi agency prevention and intervention activities have sought to raise awareness and minimise levels of deliberate fire setting, the success of which is reflected in the operational data tables.

In general antisocial behaviour has declined in the past few years with Strathclyde Police and partner agencies proactively identifying shared problems and targeting problem areas through tasking and coordinating processes. Increased prevention and intervention work has undoubtedly played a considerable part in the reduction of fire related antisocial behaviour. However as previously noted, levels of outdoor antisocial behaviour generally reduce during prolonged wet weather and increase during prolonged warm dry weather. Overall there is some concern that current lower levels of fire setting and fire related antisocial behaviour may not be sustainable.

Fire related antisocial behaviour comprises of:-

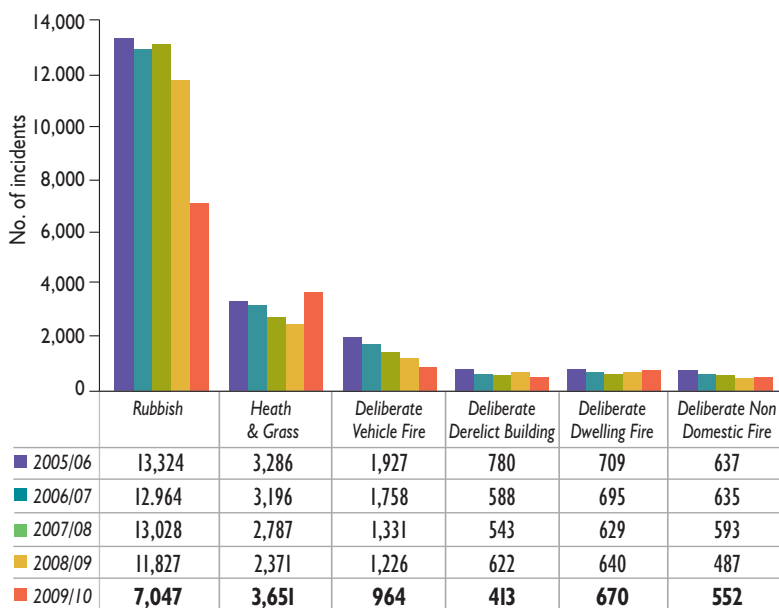
- Deliberate fire setting
- Malicious false alarms (including hoax calls and deliberate actuation of fire warning systems)
- Acts of violence
- Misuse of fire hydrants

Chart 1: Antisocial Behaviour 2006 - 2010



Due to improved multi agency collaboration Fire Related Antisocial Behaviour incidents (including deliberate fire setting) have reduced from a total of 26,916 in 2005/06 to 15,502 in 2009/10. A 42.4% reduction, representing a 30.8% reduction over the 5 year average of 22,392.

Chart 2: Breakdown of Secondary Fires 2006 - 2010



Secondary fires account for 28% of operational demand.

Ninety five percent of all secondary fires are deliberate and fires involving rubbish/refuse account for more than 70% of all secondary fires.

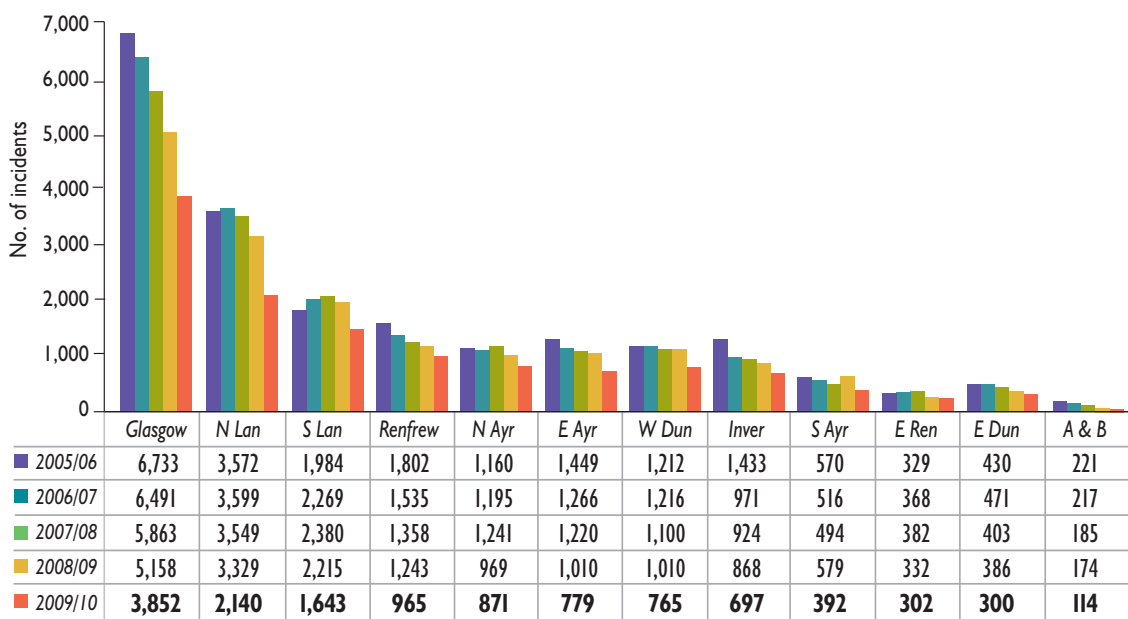
Rubbish fires have been reduced from a total of 13,324 in 2005/6 to 7,047 in 2009/10, a 47.1% reduction and a 39.4% reduction when compared to the 5 year average.

Deliberate Fires

Deliberate fires include all secondary fires and primary where the cause is recorded as non accidental. This account for over 18,000 fire incidents per year based on the five year average and although significant reductions have been achieved, deliberate fires represent a very

substantial proportion of operational demand. Around 70% of all fires attended are due to the activities of deliberate fire setters, hence the reason work has been undertaken to improve information exchange and collaboration with Strathclyde Police and Local Authorities.

Chart 3: Deliberate Fires Strathclyde 2006 - 2010



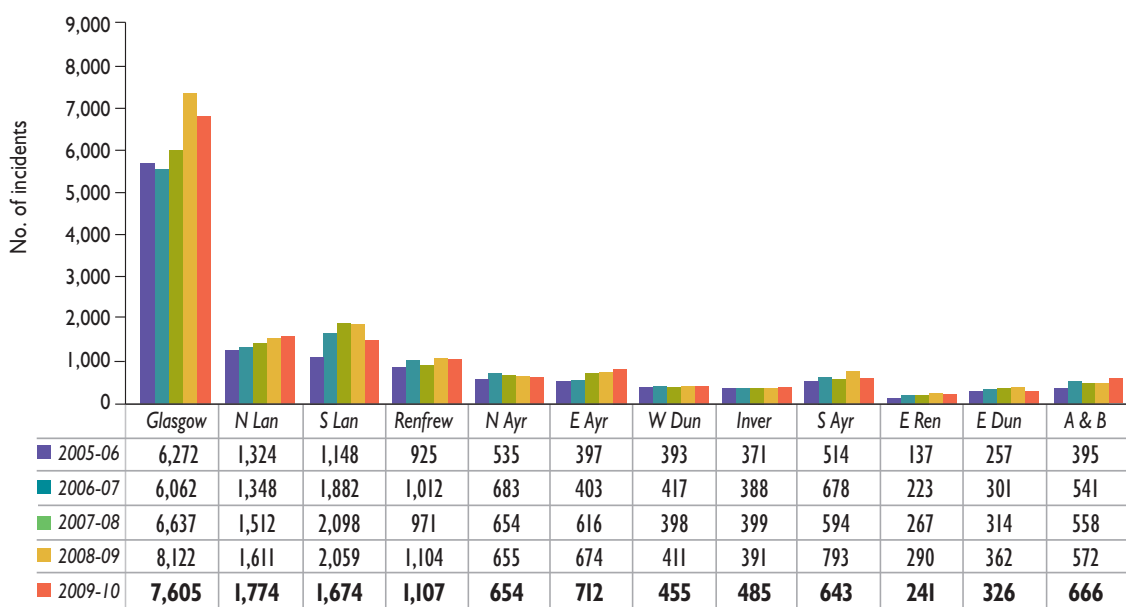
Deliberate fires have reduced from a total of 20,895 in 2005/06 to 12,820 in 2009/10 a 38.6% reduction which is a 28.9% reduction on the 5 year average of 18,040.

Automatic Fire Detection and Warning Systems

Despite ongoing efforts to manage unwanted fire alarms there continues to be an unacceptable level of false alarms emanating from automatic fire detection systems. The number of residential and commercial premises provided with automatic fire alarm systems and telecare monitoring systems

is expected to substantially increase over time. Revised procedures and mobilising arrangements have been put in place to minimise false alarms and control the response to non fire actuations. Whilst initial results have been encouraging it is too soon to evaluate the overall effectiveness.

Chart 4: Unwanted Fire Alarms 2006 - 2010



Unwanted Fire Alarms account for 27% of operational demand.

UFAS have increased from a total of 12,668 in 2005/06 to 16,342 in 2009/10 a 22.5% increase. An 8.9% increase on the 5 year average of 15,002.

Accidental Fires in the Home

The majority of fires in the home involve social housing much of which is flatted or tenement style accommodation with a single common escape stair/route often giving rise to multi fire casualties.

The cost and consequences to Local Authorities and other housing providers resulting from fire damage, reinstatement and re-housing of residents is substantial, particularly in the case of flatted accommodation where fire, smoke spread, heat damage and fire fighting activities can affect several floors and multiple properties.

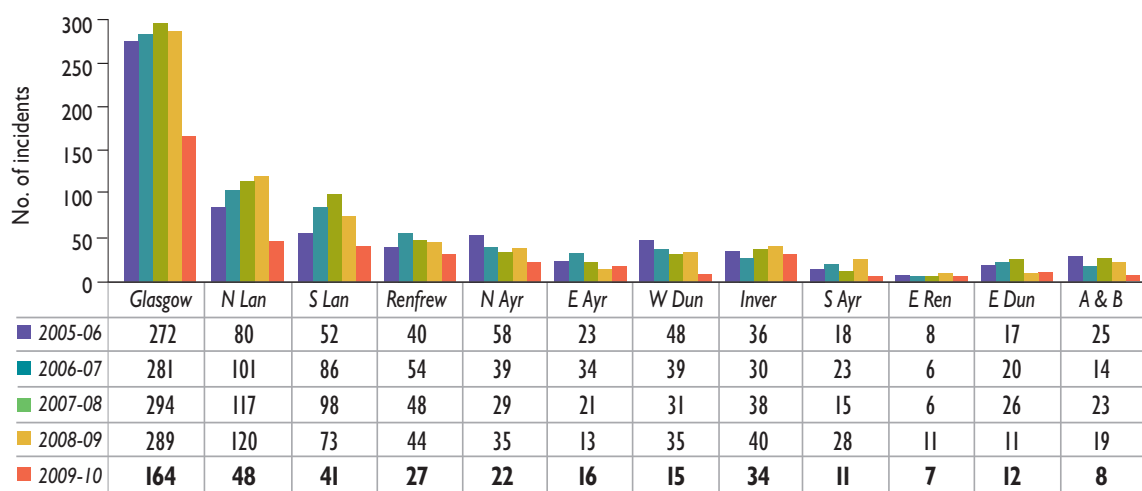
Fire fatalities have increased from the previous year (from 27- 31) and remain slightly above the five year average, however the number of fire

casualties have significantly reduced.

Persons are living longer, often alone, many with addictions, limiting long term illness, mental health problems and or cognitive impairment making them more at risk of fire and more at risk of becoming a fire casualty. The majority of persons affected by fire are in receipt of 'state benefits' and or welfare support.

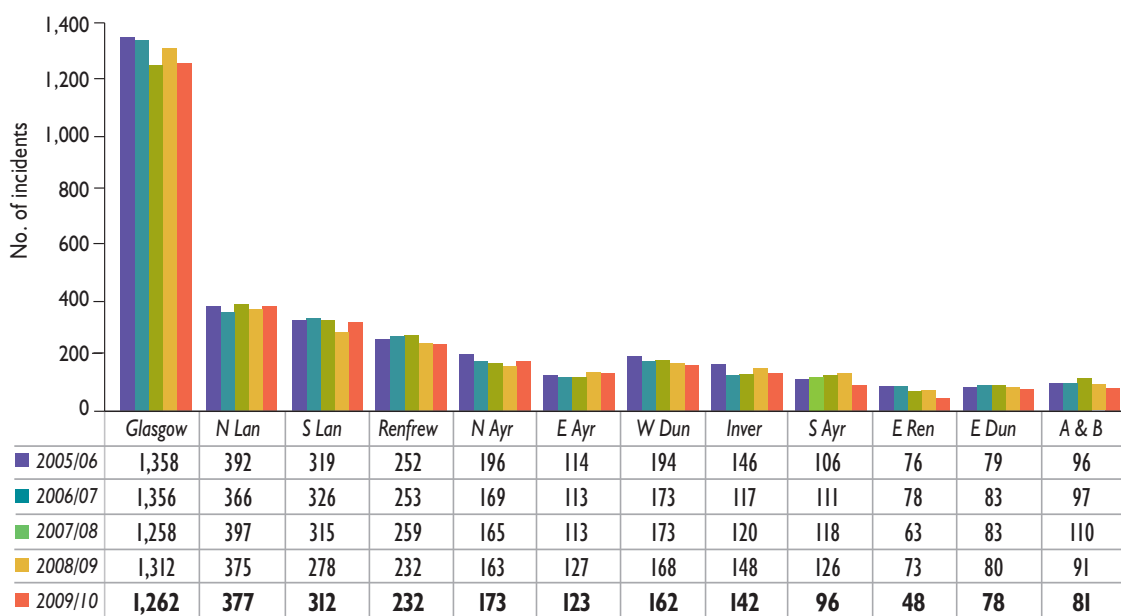
Overall the number of fires in the home continues to reduce as a result of the provision of public education and advice and better targeting of Home Fire Safety Visits. Despite a reducing trend the number of house fires, fire casualties and fatalities per 10,000 population remains above the national average.

Chart 5: Fire Casualties 2006 - 2010



Fire casualties have reduced from a total of 677 in 2005/06 to 405 in 2009/10 a 40.2% reduction. This represents a 38.2% reduction on the 5 year average of 655.

Chart 6: Fires in the Home 2006 - 2010



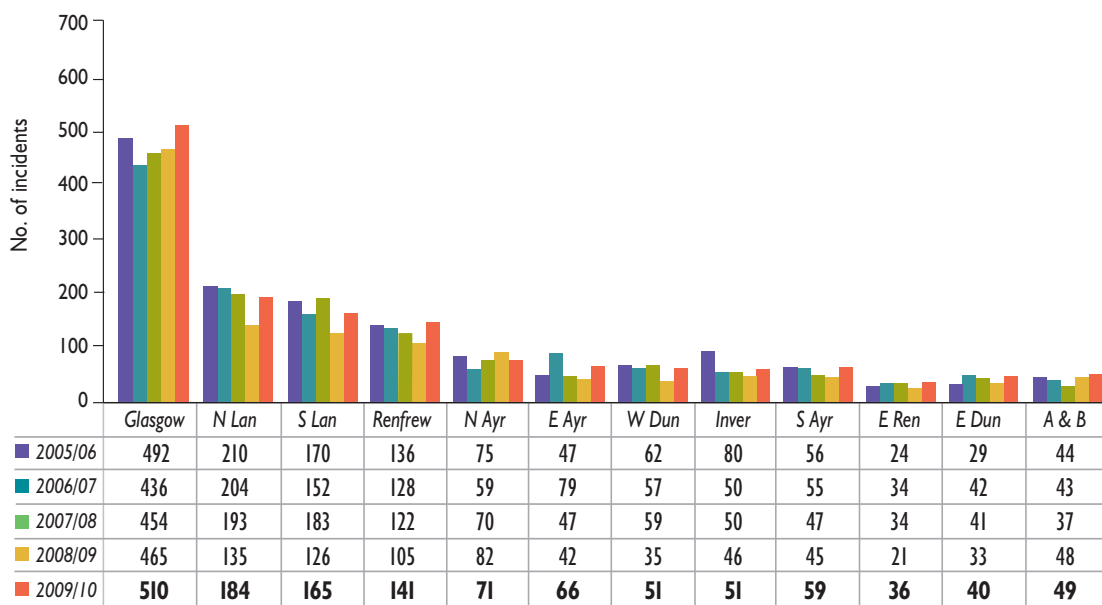
Fires in the home have reduced from a total of 3,328 in 2005/06 to 3,086 in 2009/10 a 7.3% reduction over 5 years and a 3.6% reduction on the 5 year average of 3,201.

Fire in Industrial and Commercial Properties

Although the number of fires in non dwellings initially decreased the revision of primary fire safety legislation has not brought about a substantial or sustainable reduction in the cost of fire. Consistently high fire losses, together with an increase in fires in buildings (other than dwellings) in 2009/10 may be evidence that not all employers have fully embraced the

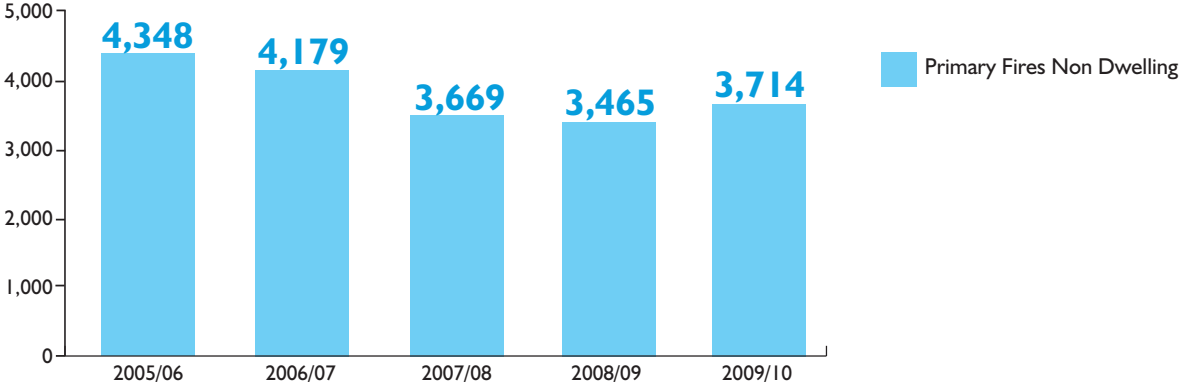
principles of risk assessment and self compliance. It may also indicate that Fire and Rescue Service enforcement arrangements could be improved or better targeted at high risk occupancies. Often in times of economic recession spending on fire safety provisions and training is reduced and also commercial businesses may experience an increase in the number of fires where the cause is recorded as unknown or non accidental.

Chart 7: Fires in Buildings other than dwellings



Fires in buildings other than dwellings have reduced from a total of 1,425 in 2005/6 by only 2 incidents in 2009/10. However there has been 6.1% increase in 2009/10 when compared with the 5 year average.

Chart 8: Primary Fires (excluding dwellings)



Primary Fires account for 12% of operational demand.

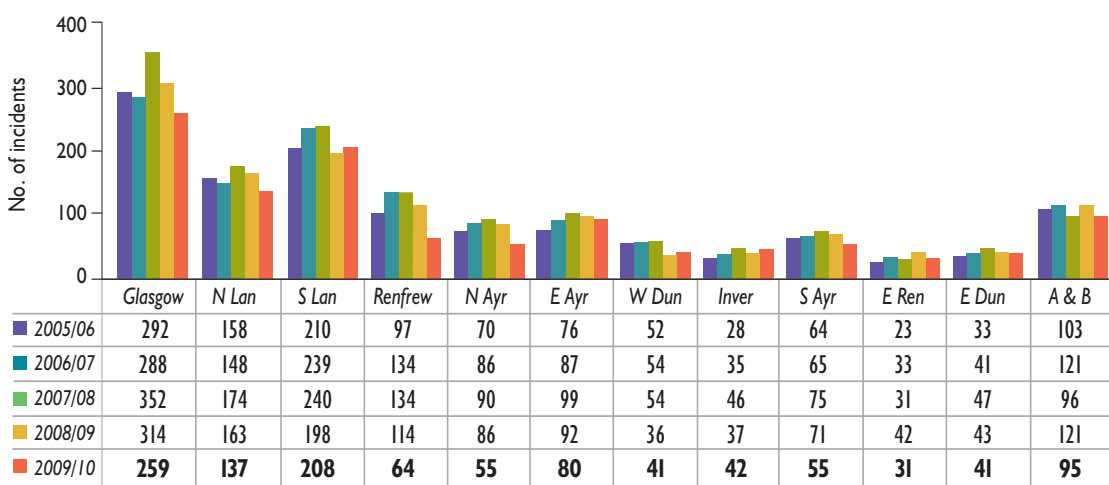
Primary fires excluding dwellings have reduced from a total of 4,348 in 2005/06 to 3,714 in 2009/10 a 14.6% reduction which is a 4.2% reduction on the 5 year average of 3,875. However there was a significant increase in 2010 over the 2009 figure.

Road Traffic Collisions (RTCs)

Although RTCs often (but not always) involve casualties and fatalities together with deployment of specialist resources, it should be noted that RTCs have only accounted for 2% of operational

attendances over the past five years. Although attendance costs (particularly in RDS areas) and risk to life arising from RTCs are high in comparison to other high volume emergency Fire and Rescue Service attendances, the overall operational demand is relatively low.

Chart 9: Road Traffic Collisions 2006 - 2010



Road Traffic Collisions have reduced from a total of 1,206 in 2005/06 to 1,108 in 2009/10 an 8.1% reduction and a 13.2% reduction on the 5 year average of 1,276.

Young People

Despite the apparent success of school safety education, youth engagement and enforcement work, the majority of antisocial behaviour (but not all) is carried out by children and young people. Many young persons are seemingly unconcerned about the consequences of their actions either to themselves or others. Levels of enforcement and prosecution are relatively low in comparison to the number of fire offences being committed and reported. Steps have been taken recently to encourage fire crews and members of the public to report fire setting and other fire related antisocial activities and this has had some benefits to SFR and communities. Acts of violence against fire crews are at very low levels as a result of legislation, a less tolerant approach to unacceptable behaviour and the improving relationship between fire crews and young people. As SFR Community Safety Centres become more involved in educating and supporting young people and work to full capacity the number of accidental and deliberate fires may fall as young people become more responsible and safety conscious citizens.

Public Perception of Fire Safety

The public have a heightened media awareness of crime and antisocial behaviour which is often disproportionate to the actual level of risk. Paradoxically they have much less concern about fire, road safety or accidental injury where statistically the risk of injury is relatively high. The public within less affluent neighbourhoods also have a relatively high tolerance level to youth fire setting and fire related antisocial behaviour. Media and marketing efforts are required to encourage a

change in attitude towards both accidental fire and deliberate fire setting particularly within deprived communities. The partnership with Scotland Crimestoppers together with media messages about fire setting are aimed at raising awareness of the consequences of fire vandalism. However more needs to be done to support and encourage individuals and householders take responsibility for their own safety and the safety of others within their neighbourhood.

Media and Marketing Activities

Effective promotion of 'core fire safety messages' is essential to inform and influence the general public and businesses, if the current reduction in service demand is to be sustained or improved. These should be linked to demand reduction priorities and key themes. In general safety messages should be short, simple to understand and action and also repeated frequently in various media and advertising formats to effectively influence the behaviour of the target group or individuals. It should be noted that social research has identified television as the main influence and information source for low income households and persons in receipt of state benefits.

Emerging Trends

There is evidence of a sustainable reduction in total operational demand over the preceding five years, reducing organisational response and societal costs (Chart 10).

In general the population is ageing with people living longer and remaining within their own home. The number of individuals suffering from long term limiting illness, addiction or infirmity is increasing and eventually this will have some effect upon the number of fires and fire casualties in the home. Much is being done in conjunction with Housing Providers, Social Services, Health and Addiction Services to identify and support those most at risk from fire.

'Fire does not discriminate' is an often used phrase and whilst there is no data or operational intelligence to suggest that culture, ethnicity or religious differences make people more or less at risk from fire the possibility should not be discounted. More detailed community fire safety information requires to be gathered in respect of cultural diversity. In reviewing gender it is apparent that single males (usually but not always) living alone are more at risk from fire than the general population and this it is assumed to be related to lifestyle, health and social circumstances. Using operational data and information from partner agencies, together with 'Experian Mosaic' software the characteristics and lifestyles of individuals and groups most at risk from fire have been identified as; low income families and individuals in receipt of various 'state benefits' and local authority support or assistance. This has informed the development of risk assessment and guidance in respect of Home Fire Safety Visits and also informed Community safety media and marketing activities. Should the ongoing

economic situation mean levels of unemployment and worklessness increase then a corresponding increase in the number of people living 'chaotic' high fire risk lifestyles should be expected.

The combination of an aging population together with health, social and economic inequalities may result in an increase in the number of fires in dwellings and a consequent increase in fire casualties.

Should the economic downturn continue to effect individuals and businesses there may also be an increase in fire related insurance claims, fire crime and vandalism.

Financial constraint over the next few years coupled with societal issues mean that CFS aims and objectives together with performance management targets will require to be realistic and achievable. For example the current strategy of 'reducing operational demand' which has been successful may in the immediate future need to focus upon 'preventing increased demand'.

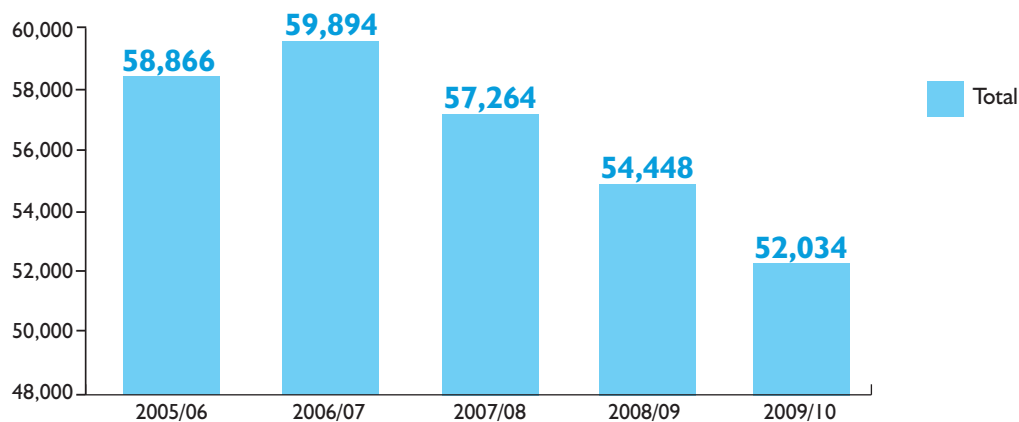
There is scope and opportunity for SFR to contribute to the development of cross cutting policies and strategies such as climate change, alcohol and addiction, ASB, neighbourhood management and future health, education and housing policy. This would ensure that fire and safety issues are taken into account and where relevant embedded within a range of future national policy and planning proposals.

Summary

Operational demand across key indicators has reduced incrementally over the past four years and as a consequence the public have never been safer from fire or less likely to be the victim of fire related crime and antisocial behaviour. There can be no complacency however as some incidence rates remain high and considerable scope for further reduction in the volume of operational

demand still exists, particularly in respect of deliberate fire setting and unwanted fire signals. However there will be a diminishing scale of return and financial constraints together with demographic and societal changes will make it difficult in the future to sustain current reductions or achieve further improvements in service provision.

Chart 10: Total SFR Incidents 2005 - 2010



The total number of incidents attended by SFR has reduced from 58,866 in 2005/06 to 52,034 in 2009/10 an 11.6% reduction and a 7.9% reduction over the 5 year average of 56,501.

Conclusions

The challenge now is to learn from the projects, initiatives and multi agency work that has been undertaken and fully embed new procedures and good practice being developed, into core operational working practices. In some cases this represents a fundamental cultural change in addition to procedural, structural or organisational changes within SFR, local authorities and partner organisations.

The service must also take into account the likely impact of both an ageing and increasing population upon service demand and service delivery and plan accordingly.

Given that there has been a slight increase in the number of fires in buildings (other than dwellings) a more proactive audit and inspection regime should be considered, to ensure employers are making suitable and sufficient arrangements to manage the risk of fire.

Whilst there is no clear evidence base to conclude that fire safety service demand patterns or trends differ significantly in relation to cultural, gender or religious issues. There is scope to improve data collection, monitoring and review to ensure any existing or emerging community safety equality or diversity issues can be identified and actioned.

To aid understanding and encourage positive behavioural change, service wide media advertising and promotion should concentrate upon a small number of key messages, exposing the target audience to frequent, often repeated core safety

messages using a variety of media formats.

From the analysis of operational data and contextual information it is clear the evidence led multi agency approach to targeting, managing and responding to the fire safety needs of communities, families and individuals most at risk, is producing significant benefits. However much more needs to be done to consolidate and mainstream good practice and ensure that partnerships being fostered at strategic level result in improved inter services collaboration and service delivery at local level.

As access to central funding to support the delivery of community safety is likely to become problematic in the future, an increasing reliance may need to be placed upon the development of business partnerships.

This strategic assessment provides the opportunity to revise or amend outcome based corporate community safety targets, to better reflect the progress being made and take account of current and future demand reduction issues.

The CFSA has identified community safety priorities together with thematic issues that most affect service demand and service delivery. Concentrating upon these priorities will; simplify the management and delivery of community fire safety; make better use of finite resources and provide better value for money by targeting people and communities most in need or who would benefit most.

Produced by Strathclyde Fire & Rescue Community Safety Partnership Unit based upon a strategic review and analysis of five year operational data and supporting information and intelligence.

