

# Integrated Risk Management Plan

## Introduction

The Fire and Rescue National Framework for England requires us to have an Integrated Risk Management Plan which is designed to give fire and rescue services the flexibility to use our resources in the most effective way to save lives, improve public safety and reduce emergency incidents.

In formulating the plan, the Service is required to:

- Identify and assess all foreseeable fire and rescue related risks that could affect the communities it serves including those of a cross-border, multi-authority and national nature;
- Demonstrate how prevention, protection and response activities will best be used to mitigate the impact of risk on communities through authorities working either individually or collectively in a cost effective way;
- Be easily accessible and publicly available;
- Reflect effective consultation throughout their development and at all review stages with the community, its workforce and representative bodies, and partners;
- Cover at least a three year time span and be reviewed and revised as often as it is necessary to ensure that fire and rescue authorities are able to deliver the requirements set out in the Framework;
- Reflect up to date risk analyses and the evaluation of service delivery outcomes.

Although the Service only has a statutory duty to deal with fires and road traffic collisions, the Fire and Rescue National Framework also identifies that there are new challenges that the Service has to deal with, such as the continued threat of terrorism, the impacts of climate change, impacts of an ageing population and the need to cut the national deficit. In pursuit of its vision of 'Making Devon and Somerset a safer place to live, work and visit', it is important that the Service understands these wider challenges and that they inform its strategic planning.

In 2017, the Service has reviewed and changed its approach to corporate planning to enable the clear identification and definition of its response to these wider challenges, to the changing needs of the community and to the challenges it faces.

The Service's revised corporate planning approach currently has three key strands, namely:

- The Fire and Rescue Plan;
- The Integrated Risk Management Plan; and
- its Change and Improvement activities.

Each of these strands considers a different aspect of risk and sets out at a high level how the Service will respond to them. These are subject to an annual review to ensure they are still fit for purpose, that they still address the key risks and that they provide a clear steer on the priority activities for the coming year.

The Fire and Rescue Plan describes the overall risk environment in which the Service operates. Every year the Service carries out a STEEPLE analysis which looks at the external and internal Sociological, Technological, Economic, Environmental Political, Legal and Ethical influences and how they may have changed. This information is used to inform the Integrated Risk Management Plan and the Service's change and improvement activities.

**Our Vision** is to make Devon and Somerset a 'safer place to live, work and visit'.

**Our Mission** is to 'Act to Protect and Save – to prevent emergencies, create safer communities and respond, when required, in order to save life.'

**Our Priorities** There are three key priorities to guide how the Service uses its resources and assess the importance of new work which forms the Integrated Risk Management Plan's priorities:

- A relentless focus on improving public safety
- Be passionate about continually improving staff safety
- Create an even more efficient and effective organisation.

The change and improvement activities undertaken enable the Service to look in more detail at the organisational risks that are faced, for example the current financial challenges and how as an organisation those risks will be addressed.

The final part, the Integrated Risk Management Plan considers the risks our communities face and the prevention, protection and response activities the Service can put in place to mitigate those risks.

The Integrated Risk Management Plan and change and improvement activities are delivered through our annual service planning framework and this document along with those detailed action and implementation plans fulfil the requirements of the National Framework.

As the environment in which the Service operates is constantly changing, new risks to the communities served will always emerge. It is the Service's job to ensure that it continually assesses these changing risks and ensures it keeps the communities of Devon and Somerset safe. In addition to the annual review process the Service therefore continues to analyse any emerging opportunities and threats throughout the year through its normal risk management processes.

Regular reporting will take place throughout the year to provide assurances that the Service's activities are delivering the desired outcomes or enable corrective actions to be put in place where they are not.

The Integrated Risk Management Plan sets the higher level, cross-cutting risks. The diversity, demographics and geography across the communities' of Devon & Somerset varies and each Station Area & Plan will require differing solutions and mitigating activities to reduce the risk according to the specific risks in those areas.

The Integrated Risk Management Plan will be the enabler to support detailed, flexible and responsive plans within the Service to both support and deliver at local level to deliver against the specific risk through Strategic Partnerships, Local Teams, collaborative and partnership frameworks to meet local need. The Service's Local Risk Managers will be empowered, supported, responsible and accountable for local detailed delivery within the umbrella of the Integrated Risk Management Plan. The framework for this is set out below.

### **Equality, diversity and inclusion**

Devon and Somerset Fire and Rescue Service puts people and their individual needs at the heart of service planning and delivery. In its workplace practices it recognises that to serve the community to the highest standard, it needs to take an inclusive approach to the community and its staff through regular and meaningful engagement. This will ensure that it can identify and act on emerging needs quickly and flexibly. The workforce needs to be equipped with the knowledge and skills to deal with the modern requirements of a different service provision and working together with various agencies. Therefore, the main equality, diversity and inclusion priorities are:

- Increasing public and community awareness of risk in order to reduce harm
- Delivering improved, tailored services by analysing and acting upon equality, diversity and inclusion considerations
- Achieving a workforce that reflects the diversity of our communities and that is closely aligned to our core values.

## **Our journey towards creating safer communities – how we assess and analyse the risks faced by the communities we serve**

The risk model has been developed using a mixture of data from a range of sources both from within the Service and external sources, including partner agencies, and making use of analysis both reactive (incidents and event data) and predictive (demography) datasets. Our risk analysis builds on the work of partner organisations and uses evidence bases such as those compiled for Health and Social Care Joint Strategic Needs Assessments. The model examines the local risks relative to the whole of Devon & Somerset, covering all emergency incident types attended by the Service and allow for prioritisation of risk types to direct risk management activity. The model demonstrates which communities within Devon and Somerset are at higher risk of harm, and the differing nature of those risks at a local level. The risk focussed nature of our analysis ensures that the Service's activities to manage that risk whether prevention, protection or response can be integrated and aligned with the activities of our partners

One of the main principles of an Integrated Risk Management Plan is that a fire & rescue service must be able to evidence that its resources are deployed in a manner commensurate with where the identified risks lie. The Service uses various tools to help us with this including specific software such as Fire Service Emergency Cover (FSEC) which enables us to quantify risk and thus identify where it is most efficient to locate our response resources and Fire Risk Event Data (FRED) which are datasets compiled from a range of sources to identify those commercial building most at risk.

These enable us to map where the highest risks exist in our Service Area and identify where prevention and protection activity needs to take place as well as where we are under (or over) capacity with regard to speed and weight of response into these areas. Historically these analyses have focussed on the main risks of Dwelling Fires and Road Traffic Collisions (RTCs), but the method is adaptable to other types of risks such as Commercial Building and other Special Services.

Amongst other things, this Risk Assessment method allows us to quickly assess the impact of, and model "What if.." scenarios for many of the key issues we face such as Turnout, On call availability, Population demographic, Station locations, and the effectiveness of smaller faster vehicles.

Following the assessment of fire related risk through the Integrated Risk Management Plan process a gap analysis was carried out to consider any strategic issues that the service may face in the coming years. This identified that the following six elements within the identified risks required further consideration in planning the strategic direction of the Service:

- An increasingly ageing population

- Common Health and Wellbeing risks
- Availability of On Call appliances
- The historical distribution of Service Delivery Resources
- An increasing demand for Emergency Medical response
- An increase in the number of serious fires affecting commercial premises

## **Our Risk Sources.**

The methodology by which the Service assesses and quantifies its risks to enable us to focus resources – matching resources to risk – comes from a number of sources.



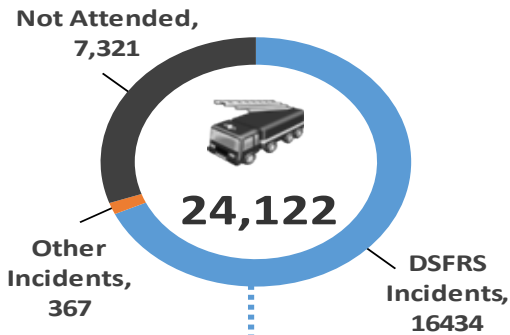
Further detail on the risk sources are available in the Appendix.

## What are the Risks?

Set out below are the Key Risks that have been identified. The remainder of the plan provides a brief overview of each risk and the high level mitigating actions that we will be putting in place over the period of the plan to deal with those risks.

Risk Category	Identified Risk
Fires and Injury	<ul style="list-style-type: none"><li>• Accidental Dwelling Fires</li><li>• An increasingly ageing population</li><li>• Serious fires in commercial premises</li><li>• Deliberate fires</li><li>• Heritage Property Fires</li></ul>
Road Traffic Collisions	<ul style="list-style-type: none"><li>• Road collisions causing loss of life or serious injury</li></ul>
Health and wellbeing factors	<ul style="list-style-type: none"><li>• People who have 2 or more of the seven identified factors are more likely to be at risk from fire</li><li>• The increasing demand for Emergency Medical Response (Co-responding)</li><li>• Safeguarding.</li></ul>
Environment	<ul style="list-style-type: none"><li>• Wide scale flooding</li><li>• Hazardous Materials sites and incidents</li></ul>
Rescues	<ul style="list-style-type: none"><li>• Height</li><li>• Confined spaces and entrapments</li><li>• Drowning and open water safety</li></ul>
Resources	<ul style="list-style-type: none"><li>• The unavailability of on call appliances</li><li>• The historical distribution of service delivery resources</li><li>• Attending too many false alarms</li></ul>

## Emergency Call Summary - April 2016 to March 2017



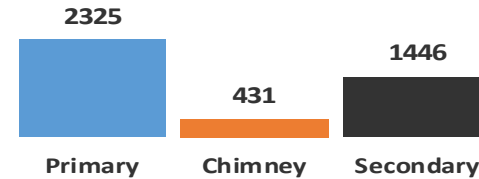
The fire service attended 70% of the unique emergency calls received but made the decision that attendance was not required on 30% of occasions.

There are a number of reasons why an incident may not require a physical response, including:

- Fire Control identify a call as being a hoax;
- An issue can be resolved by advice being given;
- Policy states that we do not attend an incident type;
- Information is received that an incident has been resolved prior to the fire service arriving.

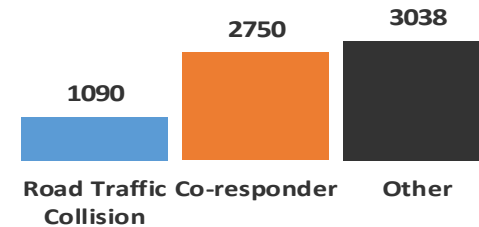
Fire, 4202

**Primary Fires** - generally larger more complex incidents, those with casualties or fatalities or those occurring in dwellings.  
**Chimney Fires** - fires restricted to the confines of the chimney.  
**Secondary Fires** - minor fires, no casualties.



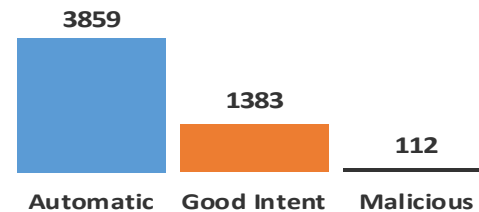
Special Service, 6878

**Road Traffic Collisions (RTCs)** attended by DSFRS - not fires.  
**Medical emergencies** include Co-responder incidents for which DSFRS provide first response on behalf of the South West Ambulance Service Trust (SWAST).  
**Other incidents** include flooding, rescue from height, animal rescue



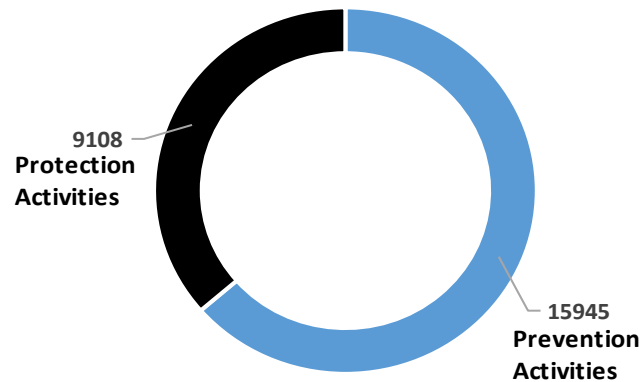
False Alarm, 5354

**Automatic Fire Alarm (AFAs)** - calls initiated by fire alarm or fire-fighting equipment operating.  
**False Alarm Good Intent** - calls made in the belief that the Service would attend an emergency incident.  
**Malicious False Alarm** - calls made with the intention of getting the Service to respond to a non-existent incident.





## Prevention and Protection

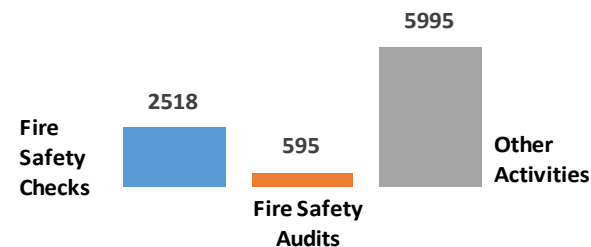
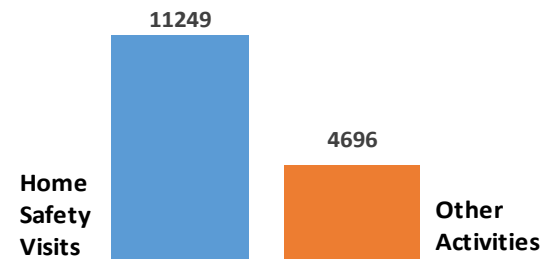


Making our communities safer is not just about responding to emergencies. The Service undertakes a variety of proactive activities to reduce the risk to our communities. The **Prevention** and **Protection** Activities include Home Safety Visits, Road Traffic Collision Programmes, Schools Visits and Fire Safety Checks and Audits of non-domestic premises.

**Home Safety Visits** - this figure includes 'Level 1 & 2 Home Fires Safety's' and 'Replacement Alarm Visits'

**Other Activity** - this includes schools talks, Fire Cadets, Phoenix and FireSetters and all other engagement activity

DSFRS has a statutory obligation to ensure that non domestic premises and public event are compliant with fire safety regulations. We achieve this through **fire safety checks** and the more in-depth **fire safety audits** along with various engagement and promotion activities.

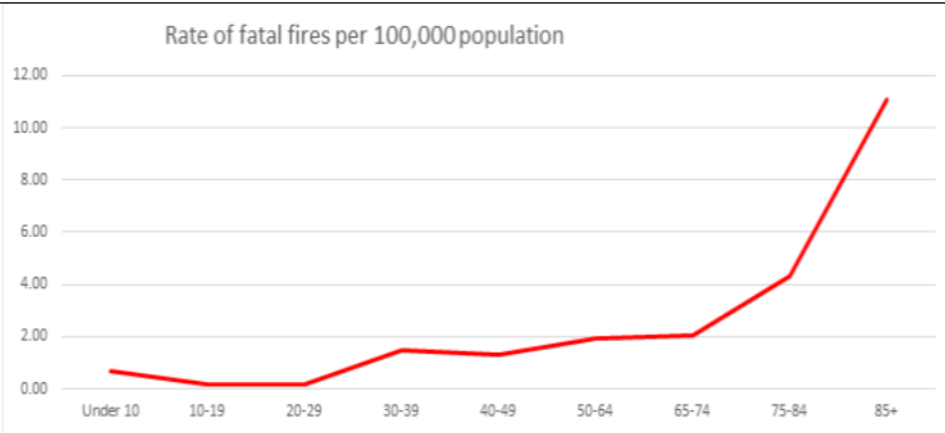


## Risk Category – Fires and Injuries

*Did you know...?*

- *The Service completed more Community Safety activities last year than incidents attended*
- *Just 26% of incidents attended by the Service are Fires*
- *The number of people aged over 85 is expected to nearly double within the next 20 years*
- *There are more than 100,000 commercial buildings in Devon and Somerset. The average societal cost of a commercial building fire is more than £75,000.*
- *There are more than 30,000 listed buildings in Devon and Somerset.*

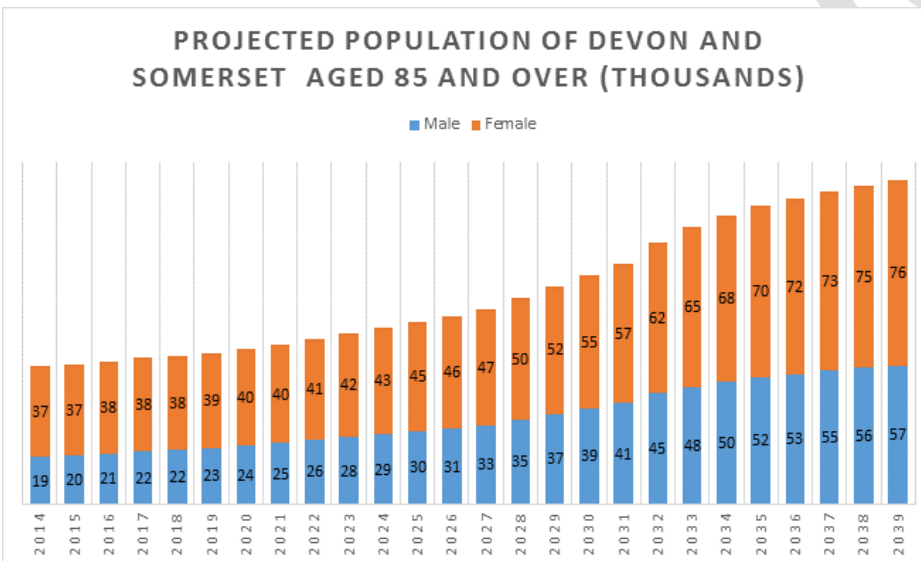
Identified Risks	Why it's a key Risk
<p><b>Accidental Dwelling Fires</b></p>	<p>As part of the Fire and Rescue Service Act 2004 we have a statutory duty to promote fire safety to help stop fire deaths and injuries.</p> <p>In 2016/17, the Service attended 1004 primary fires in dwellings, which resulted in 64 injuries and 6 deaths. The vast majority of fatalities and injuries from fires occur in domestic properties and the main focus of our work is therefore in this area.</p>
<p><b>An increasingly ageing population</b></p>	<p>Previous research into fatal fires shows that those aged over 85 have a much higher rate of fatal fires, this suggests that although we may see a reduction in accidental dwelling fires, the increasing elderly population and associated increase in vulnerable people with complex needs living in the community could mean the number of serious fires and fatalities rising as a proportion of all accidental dwelling fires.</p> <p>This graph shows how the likelihood of people suffering</p>



a fatal fire increases as they become older. Those over 85 years old are especially at risk.

The Service therefore need to make efforts to reduce the risk of these incidents occurring.

The population of Devon & Somerset is ageing with a forecasted increase in the number of people aged over 85 from 59,800 to 79,700 (34% increase in ten years) as indicated in the bar chart opposite.

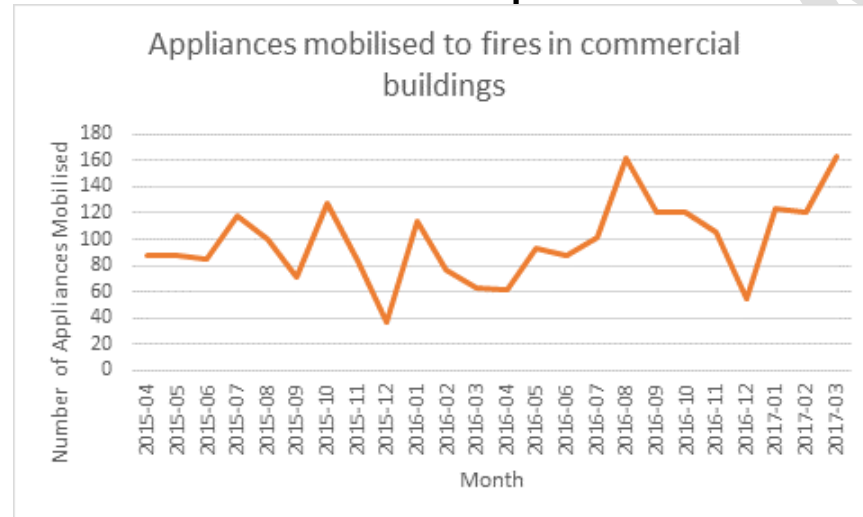


**People who have 2 or more of seven identified factors are more likely to be at risk from fire**

There are seven identified factors that put people at greater risk of a fatal fire:

1. Mental Health
2. Poor Housekeeping
3. Alcohol
4. Smoking
5. Drugs (prescription or illegal)
6. Limited Mobility
7. Living Alone

**Serious fires in commercial premises**



In 2016/17, there were 463 accidental fires where people work and visit. This resulted in 9 injuries and 2 deaths. Of these there were a number of fires a large commercial properties most notably the Royal Clarence Hotel in Exeter. The impacts of such fires on people, the economy and the environment both built and natural can be significant and have severe impacts on the ability of businesses, affected both directly and indirectly, to continue to trade.

To target our resources to maximise the impact of our activity we use predictive analytics, our Fire Risk Event Data (FRED) dataset identifies those businesses that are most likely to have a fire in the next 12 months and where the risk is higher due to factors such as sleeping accommodation on the premises. Currently there are approximately 10,000 addresses identified as priority addresses

## **Deliberate fires**

A deliberate fire includes those where the motive for the fire was 'thought to be' or 'suspected to be' deliberate. Deliberate fires are not the same as arson. Arson is defined under the Criminal Damage Act of 1971 as 'an act of attempting to destroy or damage property, and/or in doing so, to endanger life'.

These fires remain the largest single cause of fire in England and Wales and research has estimated that the overall annual cost of arson to the economy in this area is around £2.53 billion. The human cost has also been high. In the last decade there have been around 2.3 million deliberate fires resulting in over 25,000 injuries and over 900 deaths.

During 2016/17, in Devon and Somerset there were 78 deliberate fires where people live. Which resulted in 11 injuries and 1 death. Where people work, visit and in vehicles there were 392 fires which resulted in 2 injuries and 1 death.

## Heritage property fires

Within Devon & Somerset there are:-

- 738 Grade 1 listed buildings;
- 29600 Grade 2 listed buildings;
- 2020 Grade 2\* listed buildings;
- 5972 thatched buildings.

The average thatch fire takes 1.6 days of appliance time for the Service to deal with and costs £11,727. This does not include the costs to local employers and small businesses who release their staff as On Call fire fighters. On average the Service respond to 35 of these incidents per year at an annual cost of more than £400,000.

### Our current activities to address the risks

The Service uses the data it has accumulated to identify those domestic and commercial premises that are most at risk from fire, this enables our interventions and support activity to be targeted. Our activity includes:

- An existing programme of Home Fire Safety Visits
- Educating elderly care partners on fire risks
- Working with our partners to access our most vulnerable groups through referrals
- Targeted Fire Safety Checks and Fire Safety Audits with a focus on care homes
- Compliance events and visits for businesses
- Robust enforcement policy resulting in high profile prosecutions
- Presentations to groups of people providing advice and answer questions about fire safety, and
- Campaigns and information around specific risks

The Service undertakes a number of Deliberate Fire Reduction Activities, including:

- media campaigns,
- fire-setter interventions for those children and young people identified as having a fascination with fire, or who have displayed fire setting behaviours
- Provision of focused arson reduction education packages for key stage 3 children.
- We work closely with the national Arson Prevention Forum.
- Collaboration between the the Service Safeguarding Team and Police/Fire Liaison Officer to effectively address deliberate fire-setting.

### Our proposals to improve our service and reduce the risks further

- **Reduce** the risk of fire to households through delivery of Home Fire Safety Checks using new working arrangements, improved staff (awareness) training, vehicles and technology to deliver in excess of 20,000 targeted home safety visits across our service area every year with particular emphasis on residents aged over 85.
- Development of a Heritage Property fire reduction policy.
- Expanded collaboration work with the Police and other partners including Health and Social Care to ensure the highest risk individuals can receive our support
- **Reduce** the impact of fire through development of a strategy to support the installation of domestic sprinklers in the highest risk households
- Improve **Control** of fire risk through investment in training for Business Safety Officers to expand our capability in enforcing Fire Safety legislation.
- Use of new firefighting technology, enhancing incident skills/knowledge of operational personnel and attracting new skills to improve outcomes of incidents and firefighter safety.

## Expected outcomes from the activities

- A reduction in the number of accidental dwelling fires
- A reduction in fire related injuries particularly in the ageing population
- A decrease in the number of fires in commercial premises
- A reduction in the number of deliberate fires
- A decrease in the number of fires involving heritage properties



## Risk Category – Road Traffic Collisions (RTCs)

*Did you know...?*

- *Over 30% of RTC's where someone was killed or injured involved a young driver*
- *In the 5 years (up to and including 2015) 2754 people were killed or seriously injured in RTCs in Devon and Somerset*
- *The value to society of preventing a death on the road is on average £1,783,556*

Identified Risks	Why it's a key Risk
Road collisions causing loss of life or serious injury	<p>The Fire &amp; Rescue Services Act 2004 places a duty on fire and rescue authorities to make provision for rescuing persons from road traffic collisions and for dealing with the aftermath of such collisions and Fire and rescue services attend more RTCs and with deaths and serious injury collisions on the road increasing; road safety has now become a strategic priority for the National Fire Chiefs Council.</p> <p>The main areas of focus are young people and motorcyclists; as statistics currently show that these people are significantly more likely to be involved in a RTC.</p> <p>In 2015 661 people were killed or seriously injured on our roads in Devon &amp; Somerset; with young drivers (aged 17-24 years) old representing 31% and motorcyclists representing 27% of these casualties.</p> <p>The wider economic impact of Road Traffic collisions is also significant particularly if they result in closures of the region's main arterial routes.</p>

Our current activities to address the risks	Our proposals to improve our service and reduce the risks further
<p>Our key approaches are education and intervention activities designed to raise awareness and consider the consequences of actions.</p> <ul style="list-style-type: none"> <li>• We provide a wide range of road safety education programmes to be used across all age ranges.</li> <li>• We engage with groups of young people such as Fire Cadets, people on our Phoenix courses, Brownies and Cubs, and educate students across key stages 1-5 to understand when they will be at risk, and identify risky behaviours.</li> <li>• We have a range of RTC reduction vehicles and motorcycles which are used to engage with targeted risk groups to promote the wider road safety messages across our community.</li> <li>• We deliver presentations to groups of people providing advice and answering questions about road safety.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Isolate</b> known high risk collision sites through sharing data with partners and using predictive analysis to target interventions with road users</li> <li>• Support our partners in the <b>control</b> of risk by contributing data and experience to influence change and improvements in road design</li> <li>• Ensure that our staff are provided with the latest technology, equipment and training to effect casualty extrications and a rapid transfer to medical care where necessary.</li> </ul>

Expected outcomes from the activities
<ul style="list-style-type: none"> <li>• Reduction in the number of Road Traffic Collisions (RTC's) that occur on our road network; and</li> <li>• Reduction in the number of people that are killed and seriously injured as a result of a RTC.</li> </ul>

## Risk Category – Health and wellbeing factors

*Did you know...?*

- *The Service now attends more emergency medical response incidents than fires.*
- *There are 70,000 hip fractures in the UK each year costing £2 billion (expected to rise to 101,000 fractures by 2020).*
- *There are approximately 60,000 people in Devon and Somerset with heart problems.*
- *Nearly 45,000 people in Devon and Somerset describe themselves as being in poor or very poor health.*
- *Every fire engine carries a defibrillator*
- *You can book a Home Fire Safety Visit by going to our website or calling this number 0800 05 02 999*

Identified Risks	Why it's a key Risk
<b>People who have 2 or more of the seven identified factors are more likely to be at risk from fire and other risks</b>	<p>The factors that put people at greater risk of a fatal fire are all common factors of risk for our partners especially the Police, NHS and Local Authorities.</p> <p>Many agencies can therefore be targeting preventative and reactive services at the same people at risk in our communities.</p> <p>There is therefore potential for improved working arrangements with our partners and to expand our work to include for example Safe and Well checks and referrals to other agencies when someone may have dementia, are vulnerable or even, for example, have substance dependencies such as an alcohol addiction.</p>

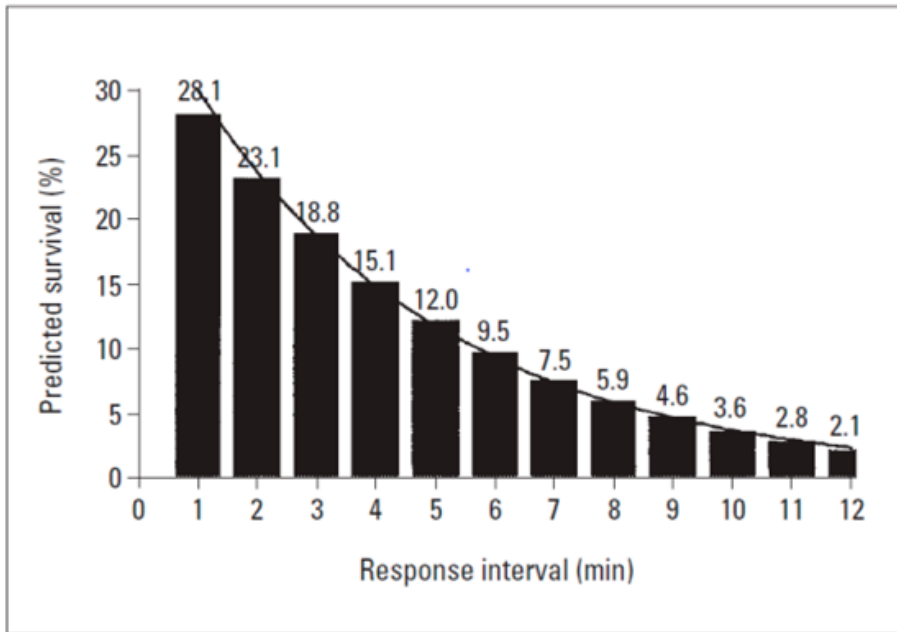


**The increasing demand for Emergency Medical Response (Co-responding)**

*Figure 1: Cardiac arrest survival rates showing an increased probability of patient survival directly correlated in the speed that defibrillation can be effected, the implication being that co-opting fire resources to provide early defibrillation will save lives(De Maio et al., 2003)*

The Service is playing an increasing role in responding to medical emergencies. It is the single incident type that has grown in demand over the last 10 years. National data shows that fire and rescue services are able to reach incidents as a whole before ambulance services in 62% of cases based on the trial incident data and in time-critical incidents, such as cardiac arrests, they arrive sooner than ambulances in 93% of cases.

Within the Service, over the past couple of years there are more co-responding calls attended by 20 stations than primary fire calls attended by 85 fire stations. However as co-responding is currently a voluntary activity carried out on 20 on



call fire stations across the Service there is scope for increased provision to match the demand.

**Safeguarding**

Devon and Somerset Fire and Rescue Service staff and representatives have a duty to report any child protection or welfare concern through the appropriate organisational channels so that any concerns may then be reported to the appropriate local Children’s Social Care Office or Police.

All adults who work with, and on behalf of children are accountable for the way in which they exercise authority; manage risk; use resources; and safeguard children, young people and vulnerable adults.

Whether working in a paid or voluntary capacity

or on behalf of Devon and Somerset Fire and Rescue Service these adults have a duty to keep children, young people and vulnerable adults safe and to protect them from sexual, physical and emotional harm and neglect. Children, young people and vulnerable adults have the right to be treated with respect and dignity. It follows that trusted adults are expected to take reasonable steps to ensure the safety and wellbeing of children, young people and vulnerable adults.

The Service attend an average of more than 65 suicide related incidents per year, these incidents can be resource intensive and have a significant impact on attending crews.

Our current activities to address the risks	Our proposals to improve our service and reduce the risks further
<p>Our mitigation activity includes:</p> <ul style="list-style-type: none"> <li>• Targeted Home Fire Safety Visits realigned to take account of health risks</li> <li>• Targeted Fire Safety Audits of multiple occupancy low grade housing (HIMO's)</li> <li>• Collaboration with partner agencies for example with the public health teams, to reach similar target groups</li> <li>• Common campaigning with our partners</li> <li>• Safeguarding referrals and attendance at Multi Agency Safeguarding Hubs to support those at risk through partnership working.</li> <li>• Vetting of all staff who work in community safety</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Eliminate</b> risk through delivery of Safe and Well visits by highly skilled staff, who are sensitive of community needs, to make people safer from a wider range of risks, such as falls, within their own home.</li> <li>• <b>Reduce</b> risk through Community Engagement working with partners to support health messages.</li> <li>• Development of a suicide prevention strategy to reflect, raise awareness and limit the impact of suicide on society and on THE SERVICE crews</li> <li>• Review where present co-responding arrangements could be improved</li> <li>• Identify alternative methods of responding to emergency medical incidents through consultation with staff and community</li> </ul>
Expected outcomes from the activities	
<ul style="list-style-type: none"> <li>• A reduction in the number of fires and fire related injuries amongst the most vulnerable people in our communities</li> <li>• Improved wellbeing amongst the identified vulnerable group</li> <li>• Increased number of medical emergencies responded to</li> <li>• Achievement of response times for medical emergencies</li> <li>• Improved outcomes for partner organisations, including a reduction in the number of slips, trips and falls.</li> </ul>	

## Risk Category – Environment

Did you know...?

- *In one week in 2012, the Service attended more flooding incidents than in the whole of 2015*
- *Hinkley C is the largest civil engineering project in Europe and is greater in scale than the Channel Tunnel and Olympic Stadium put together*
- *Devonport dockyard is the largest Naval base in Western Europe.*

Identified Risks	Why it's a key Risk
<p><b>Wide scale flooding</b></p>	<p>Flooding is a significant risk for a number of areas and communities within Devon and Somerset. For example during the winter of 2013/14 the area suffered significant rainfall that led to major flooding in the Somerset levels creating a 44.44 square mile flood plain affecting a large number of communities. The village of Muchelney was totally cut off due to impassable roads and in the village of Moorland, 100 homes were evacuated in the middle of the night.</p> <p>During that period, the Service was involved in 96 flooding incidents, this includes 1 incident number that was assigned to the Somerset Levels which ran from 29/01/14 until 12/02/14, and will have included many mobilisations involving, 436 service vehicles and 1132 service personnel.</p>
<p><b>Hazardous materials sites and incidents</b></p>	<p>The release of hazardous materials in any form poses significant risks to people, animals and the environment. The nature of the materials means that the effect of any incident can be long lasting and not just a risk in the immediate aftermath of the release.</p> <p>In dealing with these types of incident our staff are at exposed to</p>



	<p>dangerous conditions and there is a requirement for the Service to recognise high risk sites and inform operational crews so they can familiarise themselves with the risks and train accordingly.</p> <p>Hazardous material incidents are complex in nature and can vary in the size or response required. These range from small spillages or leaks, to significant major incidents involving a multi-agency response, including Chemical Biological Radiation Nuclear and explosion incidents (CBRN(e)) and acts of terrorism.</p> <p>High Risk areas for response are identified, and specific plans are developed in order to identify the appropriate response to emergencies at such locations. Sites located throughout the Service area include Hinkley Point power station, Devonport Dockyard (Nuclear Submarine Refit Complex) and a number of Control Of Major Accident Hazard (COMAH) sites. The major South West transport networks including rail, airport and motorway systems can also carry or be affected by incidents involving hazardous materials.</p>
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<b>Our current activities to address the risks</b>	<b>Our proposals to improve our service and reduce the risks further</b>
<p>Through community resilience initiatives communities, businesses, and individuals are empowered to harness local resources and expertise to help themselves and their communities to prepare and respond to local significant events such as flooding. The Service helps support these initiatives.</p> <p>All the community resilience activity we deliver is done in conjunction with our Local Resilience Forum partners who have established Community Resilience projects to improve their ability to prepare, respond and recover from local catastrophes.</p>	<ul style="list-style-type: none"> <li>• <b>Reduce</b> the risk to our staff by providing specific training for to ensure they are prepared to deal with flooding, hazardous materials and counter terrorism incidents;</li> <li>• Develop our relationships with partners who manage high risk sites to <b>control</b> risk through legal compliance and integrated response plans ensuring effective use of all available resources.</li> </ul>

The Service's Operational Risk Information System (ORIS) meets the statutory requirement for Fire and Rescue Services to ensure that firefighters can be made aware of the risks associated with premises and incidents which they may be required to attend.

### **Expected outcomes from the activities**

- Increase in community resilience
- Increased competence of staff to deal with environmental incidents
- Completion and maintenance of ORIS inspection requirements
- Comprehensive training and exercising at key risk sites.

## Risk Category – Rescues

*Did you know...?*

- *In 2015, three times the number of people died in drowning incidents than in house fires in Devon and Somerset*
- *In the last year, there have been a more fatalities in agricultural locations in South West England than in other areas of the UK*
- *In 2016 DSFRS crews attended 255 animal rescues*

Identified Risks	Why it's a key Risk
<b>Height</b>	<p>One of our primary functions is to save life and prevent harm, therefore as a Fire and Rescue Service, we have the skills and equipment to rescue those people who may be at risk from harm, serious injury or death caused by a fall from height.</p> <p>The diversity of natural and constructed risks include areas of cliff around the coastal areas and inland at Cheddar Gorge, quarries across the Mendips, the Tamar Bridge, Exeter Cathedral and Wells Cathedral are just some examples of many where people live, work and visit.</p> <p>Often people or animals come to harm as a result of their activities which may be as a result of work or leisure pursuits. There are also many occasions where vulnerable people are in need of rescue.</p>

Identified Risks	Why it's a key Risk
<p><b>Confined spaces and entrapments</b></p>	<p>A confined space means any place, including any chamber, tank, vat, silo, pit, trench, pipe, sewer, flue, well or other similar space in which, by virtue of its enclosed nature, there arises a reasonably foreseeable risk.</p> <p>The diverse rural and agricultural nature of large parts of Devon &amp; Somerset, particularly across parts of Exmoor, Dartmoor, the Quantocks, Mendips and the Somerset Levels increases the risk of those who work and pursue leisure activities in those areas. In particular rescue from sewers, culverts, caves mines, pot-holes and wells etc. or, agricultural workers trapped either wholly or partly in farm machinery or equipment.</p> <p>Each year there are 33 fatal injuries to workers in agriculture in the UK, much higher than any other industry sector. The South West of England has more of these incidents than any other region.</p> <p>Additionally the Service attend incidents in urban environments and industrial settings that require specialist skills to deal with the issues presented by these risks.</p>
<p><b>Drowning and open water safety</b></p>	<p>Drowning in the UK is amongst the leading causes of accidental death; in 2015 321 people accidentally drowned, of these 49% were taking part in everyday activities near water and never expected to enter the water. On average 400 people drown in the UK each year and a further 200 people take their own lives in our waters. In 2015, Devon and Somerset had the highest number of accidental drownings of any FRS across the country. The Service attends an average of 75 water rescue incidents each year.</p>

Our current activities to address the risks	Our proposals to improve our service and reduce the risks further
<p>The Service has a range of Special Appliances and trained personnel to deal with these types of incidents strategically located across Devon and Somerset</p> <p>We are aligned to the national campaigns on water safety Junior Life Skills and Out of the blue are multi-agency events the RNLI attend and the Royal Life Saving Society will now support these events this year for the first time.</p> <p>Development of an education package to include water safety awareness, supported by Virtual Reality film.</p> <p>With partners we support businesses and local communities with provision of throwlines and training in key strategic locations where people are losing their lives or incidents are occurring.</p> <p>Ensure Boat Safety features highly around our business and leisure risks.</p>	<ul style="list-style-type: none"> <li>• <b>Reduce</b> incidents through further targeted campaigning and education, identified and developed following engagement with relevant communities.</li> <li>• <b>Control</b> risk through exploring the idea of a rural/farming safety team;</li> <li>• Review our Special Appliance distribution and technology to ensure our resources match the risks presented.</li> <li>• Collaborate with Cat 1 &amp; 2 Responders to share resources and response to resolve incidents effectively and efficiently (Coastguard, SWAST HART, Police to support wide area searches using Station 60 assets);</li> <li>• Develop stronger relationships with voluntary agencies to understand capabilities to resolve incidents effectively and efficiently (Mendip Cave Rescue, Dartmoor/Exmoor Search &amp; Rescue).</li> </ul>

Expected outcomes from the activities
<ul style="list-style-type: none"> <li>• Reduction in the number of rescue incidents</li> <li>• Reduction in the number of accidental drownings</li> <li>• Reduction in the number of missing vulnerable people.</li> </ul>

## Risk Category – Efficient and effective use of our resources

Did you know...?

- *Approximately 80% of our stations attend fewer than two incidents per week and 54% attend less than one incident per week.*
- *We currently crew our fire engines with a minimum of 4 people however over 70% of incidents we attend could be fully dealt with by a crew of two.*
- *One Two Pump On Call station has attended 170 RTC incidents in five years, whereas another Two Pump On Call station has attended none.*

Identified Risks	Why it's a key Risk
<p><b>The unavailability of on call appliances</b></p>	<p>Only 13 of our current fleet of 121 fire engines are crewed 24 hours per day by whole time fire fighters. Which means 108 fire engines are completely reliant upon on call firefighters being available – approximately 90% of our total response capability.</p> <p>However for the 12 months to the end of February 2017 there was an average 14% unavailability of on call appliances. The issues causing this problem include:</p> <ul style="list-style-type: none"> <li>• Our reliance on people living and working within a 5 minute response time of the fire station</li> <li>• Our requirement for people to maintain a set number of hour's availability each week</li> <li>• Our training design – particularly for new recruits</li> <li>• A decrease in the number of incidents</li> <li>• Questionable reward mechanism that incentivises activity</li> </ul>

	<p>not availability</p> <ul style="list-style-type: none"> <li>• Our requirement to provide a minimum crew of 4 on an appliance – preferably 5</li> </ul>
<p><b>The historical distribution of service delivery resources</b></p>	<p>Our 85 station locations are aligned to the old standards of fire cover and are not reflective of the current and future demographics of Devon &amp; Somerset. There are a number of significant developments that will change the risk profile of the population including Cranbrook, Sherford and Taunton Garden Town.</p> <p>Our current training requires that all operational staff train to the same basic standard across the organisation irrespective of the station risk profile, incident types within the risk profile and the equipment, appliances and attributes within each Fire Station.</p>
<p><b>Attending False Alarms</b></p>	<p>The false activation of alarms where there is no fire represented 34% of incidents attended in 2016/17. This amounted to 5317 false alarms.</p> <p>Any emergency response to an unwanted/false alarm poses a risk to the community as it prevents us from being available for confirmed fires and rescues, as well as disrupting essential training and community safety initiatives.</p>

Our current activities to address the risks	Our proposals to improve our service and reduce the risks further
<p>Our mitigation activity includes:</p> <ul style="list-style-type: none"> <li>Improving the flexibility in the use of on call contracts allowing people to vary their weekly hours</li> <li>The introduction of our Tiered Response model which is predicated on a principle that all staff are trained and equipped to deal with the types of incidents that they are most likely to face on a day to day basis (tier 1), based on our analysis of risk and demand. Beyond that we provide enhanced levels of support (tiers 2 and 3) strategically located across the organisation, again based on risk and demand.</li> <li>Tier 1 assets – Rapid Intervention Vehicles &amp; Light Rescue Pumps</li> <li>Tier 2 assets – Light Rescue Pumps &amp; Medium Rescue Pumps</li> <li>Tier 3 assets – Special Appliances</li> </ul> <p>There are a number of ways we can reduce unwanted calls to our control room so that we can avoid unnecessary mobilisations and ensure that our resources are available to attend emergencies including:</p> <ul style="list-style-type: none"> <li>We send out letters to repeat offenders of false alarms to support them in bringing down the number of false alarms they have.</li> </ul>	<ul style="list-style-type: none"> <li>Review how we remunerate our on call staff for their availability in order to acquire and retain their specific experience and knowledge</li> <li>Develop an Operational Resource Centre to redistribute surplus capacity to meet forecasted crewing needs</li> <li>Explore demand led crewing options to match resources to risk ensuring that an intervention occurs as quickly as possible at any emergency incident</li> <li>Relocate resources to match changing risk profiles</li> <li>Complete the rollout of our Tiered Response appliances</li> <li>Review our response times for different incident types</li> <li>Invest in technology to ensure we are able to work effectively with our Emergency Services Partners</li> <li>Explore the use of new equipment and ways of working to keep our staff safe when attending incidents by investing in research and development.</li> <li>We will ensure that operational staff gain and maintain the correct skills and knowledge from acquisition through to maintenance of skills and combat the potential for skills-fade over time.</li> <li>Review skills and requirements for the role of On Call Firefighter and adjust recruitment process accordingly.</li> <li>Give a realistic job overview, with career opportunities, to ensure we attract the talent required for the role.</li> </ul>



- Our control room call challenges the call we receive to try and ensure that we are not attending false alarms or hoax calls.
- We include hoax call in all of our educational packages including key stage 1- 3 school.
- We provide fire-setter interventions for those children and young people identified as being involved in making malicious calls, including support for families.

#### **Expected outcomes from the activities**

- An increase in overall availability of on call appliances
- The distribution of our resources will match the risks our communities face
- Our staff will be trained to deal with the risks our communities face
- Fewer false alarms occur and are attended.

## **The future for Devon and Somerset Fire and Rescue Service**

This Integrated Risk Management Plan sets out what fire related risks are faced by the communities of Devon and Somerset along with the current and proposed prevention, protection and response activities that the Fire and Rescue Service will undertake to mitigate and deal with those risks.

Within the identified risks a number of strategic risks have emerged as part of our gap analysis, further details of which are set out below. It is these strategic risks that will be the focus of our change and improvement activity over the lifetime of this plan.

### **Why are these risks an issue to us?**

#### **An increasingly ageing population**

The population of Devon & Somerset predicts a rise in the number of people aged over 85 from 59,800 to 79,700 (34% increase over the next 10 years).

Previous research into fatal fires shows that those aged over 85 have a much higher rate of fatal fires, this suggests that although we may see a reduction in accidental dwelling fires, the increasing elderly population and associated increase in vulnerable people with complex needs living in the community could mean the number of serious fires and fatalities rising as a proportion of all accidental dwelling fires.

#### **Common Health and Wellbeing risks**

People who are more likely to be at risk from fire includes those who may have one or more of the following factors:

- Living Alone
- Alcohol
- Drugs (illegal and medication)
- Limited mobility
- Poor Housekeeping
- Mental Health
- Smoking

Evidence shows that in more than half of deaths in accidental dwelling fires more than one of these risk factors were present.

The combination of an increasingly ageing population with the Common Health and Wellbeing factors will place an increasing demand on the Service in terms of fire related risk. Our prevention and protection activity in addition to work with our partners, such as emergency medical response, means that the Service contributes to reducing the wider impacts of these risks and helps to alleviate the pressures on the public sector budgets.

### **Availability of On Call appliances**

The Service has a fleet of 121 fire engines of which 108 are completely reliant upon on call firefighters being available – 90% of our total response capability. For the 12 months to the end of February 2017 there was an average 13.94% unavailability of on call appliances.

On Call Firefighters have traditionally lived, worked and socialised within the area of the fire station which always ensured very good cover and availability of fire appliances. However, since the late 80s and early 90s, community demographics, infrastructure, employment profiles and lifestyle choices have been constantly changing. This has meant that for our On Call Firefighters, availability is less likely to be as frequent and consistent as it once was.

Our current method of employing On Call firefighters means that all of them have primary employers or are self-employed and provide emergency cover at their station whenever they can be available. This means that in essence every on call fire station has a unique identity in its ability or willingness to provide seamless cover 24 hours a day.

Fire fighters are currently paid a small retaining fee but the majority of their pay comes for attending emergency calls. In recent years and for a number of reasons operational activity across the whole of the fire sector has significantly reduced. This has had the effect of requiring on call fire fighters to provide cover for long periods of time but with a much reduced financial reward for doing so.

These austerity measures have affected the current financial climate and has had an effect on availability with some primary employers no longer allowing 'on call' staff to respond during working hours and self-employed staff having to work further afield, taking them out the response area during core hours.

The current situation where on call salaries are low but expectations of personal performance are higher than ever are acting as a barrier to recruitment and promotion and are cited as a cause of resignation.

The culmination of the above means that the Service operates on a daily basis with a number of fire stations unable to operate due to a shortage of on call staff.

### **The historical distribution of Service Delivery Resources**

Our 85 station locations are aligned to standards of fire cover that were developed in the late 1940's and are not reflective of the current and future demographics of Devon & Somerset. There are a number of significant developments that will change the risk profile of the population including Cranbrook, Sherford and Taunton Garden Town.

Approximately 80% of our stations attend fewer than two incidents per week and 54% attend less than one incident per week. Currently 372 wholtime personnel are employed at 12 stations to maintain 100% availability of 13 fire appliances on our most densely populated areas (cities and major towns). This is the result of the historical distribution of resources based on the old standards of fire cover. Of these 372 personnel only a quarter are on duty at any one time due to the watch based system and the shift pattern worked on all stations.

### **An increasing demand for Emergency Medical response**

We have been co-responding with the Ambulance Service to emergency medical incidents for over 20 years across Devon and Somerset. We were one of the first Fire and Rescue Services to develop this capacity and the demand for this service has increased year on year. This has escalated to the point where there are now more co-responding calls attended by 20 stations than primary fire calls attended by 85 stations.

The trust placed in the fire and rescue service and the comprehensive access to the public that this provides means they have a unique ability to provide critical interventions, promote health messages and refer to appropriate services.

Emergency medical response in the form of Medical Co-responding is the single incident type which has grown for the Service in the past 10 years.

- In 2015/16 the Service attended 4651 Medical emergencies and 3988 fires (DSFRS 2016).
- Analysis of Mosaic grand index (Experian PLC, 2014) gives an estimate of 58,752 households reporting a medical condition classified as 'Heart Problems'

- Analysis of Mosaic grand index (Experian PLC, 2014) gives an estimate of 45,000 households who would be expected to report their Health as 'Poor' or 'Very Poor'

### **An increase in the number of serious fires affecting commercial premises**

In 2016/17 there were 463 accidental fires where people work and visit. This resulted in 9 injuries and 2 deaths. Of these there were a number of fires at large commercial properties most notably the Royal Clarence Hotel in Exeter. The impacts of such fires on people, the economy and the environment both built and natural can be significant and have severe impacts on the ability of businesses, affected both directly and indirectly, to continue to trade.

The Fire and Rescue Service are the enforcing authority for the Regulatory Reform (Fire Safety) Order which came into law in 2005. This legislation requires the responsible person for any commercial premises to undertake a risk assessment of their property and ensure that all fire related risks are reduced to a minimum through the use of active and passive fire protection systems.

Prior to this the Fire and Rescue Service enforced the Fire Protection Act which required commercial property owners to apply for a Fire Certificate. This legislation required higher level of business safety officers than the current number, therefore we have seen a drop in the number of qualified personnel who can enforce the new legislation.

Everyone deserves to be confident that when they or their family stay in a hotel, go to their place of work, go shopping, go to the theatre or cinema, they are safe in the case of a fire inadvertently breaking out and that they are able to easily escape to a place of safety.

There are life safety benefits of taking into consideration what facilities are in place and how people would deal with a fire should one occur. Other benefits include,

- Many businesses do not recover from a serious fire, and naturally this can affect local employment with the potential that many people may lose their jobs which will have a direct effect on the local economy.
- The availability of facilities used by the community, such as village halls and sports facilities may be severely affected.
- In the case of a school or college, years of pupils' project or course work or teaching resources may be destroyed possibly affecting future examination results.

Additionally, through our work with architects, planners and building control bodies we work hard to ensure the risk posed to our fire fighters is kept to a minimum and that they are able to fight a fire with certain physical safeguards in place.

### **Strategic guiding principles for the future**

In developing a Fire and Rescue Service for the future we need to consider how changes in one area of our business can affect other areas. We are committed to our three key priorities of:

- Public Safety,
- Staff Safety; and
- Effectiveness and Efficiency.

To deliver the Fire and Rescue Service for the communities of Devon and Somerset over the next 5 years the Service will need to consider:

- The way our fire stations and appliances are crewed;
- Relocating some of our fire stations, appliances and staff to areas where risk is greatest;
- Investing in our Emergency Medical Response capacity;
- Ensuring that we collaborate with other Emergency Services; and
- Delivering more prevention and protection activity.

The Service will produce and consult upon detailed action plans around these principles in line with the Best Value Statutory Guidance (September 2011).

## Appendix

Risk Source	Detail
<p>Somerset Joint Strategic Needs Assessment</p> <p>Devon Joint Strategic Needs Assessment</p> <p>Plymouth Joint Strategic Needs Assessment</p> <p>Torbay Joint Strategic Needs Assessment</p>	<p>A Joint Strategic Needs Assessment (JSNA) is built on strong partnership working and is underpinned by robust and reliable data provided by a range of public sector organisations. The scope of the JSNA provides a firm foundation for commissioning to improve health and social care services and reduce health inequalities. It enables stronger partnerships between communities, local government, the NHS and other bodies.</p>
<p>National Risk Register</p>	<p>The National Risk Register of Civil Emergencies provides an updated government assessment of the likelihood and potential impact of a range of different civil emergency risks (including naturally and accidentally occurring hazards and malicious threats) that may directly affect the UK over the next 5 years. It also provides information on how the UK government and local respondents such as emergency services prepare for these emergencies.</p>
<p>Avon &amp; Somerset Local Resilience Forum Business Continuity Management &amp; Community Risk Register</p> <p>Devon, Cornwall &amp; Isles of Scilly Local Resilience Forum Community Risk Register</p>	<p>The Community Risk Register is a strategic level document. Its purpose is to assess the risks within a local resilience area so that the Local Resilience Forum (LRF) can prepare, validate and exercise contingency plans. It allows the LRF to focus multi agency work on a rational basis of priority and need.</p> <p>Business Continuity Management (BCM) is a process that helps manage risks to the smooth running of an organisation or delivery of service. It is an ongoing process that helps organisations anticipate, prepare for, prevent, respond to and recover from disruptions or a disaster. Under the Civil Contingencies Act 2004, all local authorities have been given the duty to provide advice, guidance and best practice on business continuity planning to business and voluntary agencies.</p>

Risk Source	Detail
<p>Historic England Heritage Risk Register</p> <p>South West Risk Register</p>	<p>A risk assessment of a heritage asset is based on the nature of the site. Building or structure assessments, for instance, include listed buildings (but not listed places of worship) and structural scheduled monuments.</p>
<p>The Service Business Intelligence Team</p>	<p>The Service Business Intelligence Hub is responsible for managing many different information sources and databases used by the Service. We then draw this data together to provide invaluable information that enables the Service to target prevention work as well as to support and inform important decisions made about how the Service operates.</p> <p>In the current economic climate, the information collected by the Business Intelligence Hub is of vital importance in ensuring that our resources are used in the most efficient way possible to enable the Service to fulfil its vision of acting to protect and save.</p>
<p>The Service teams, partners and public/communities.</p>	<p>There are teams working across 85 locations across Devon &amp; Somerset who not only work within the Service but also live, work in their own and other employment within communities. Therefore their local knowledge and professional judgement enables us to have regular community interaction where potential risk issues relating to home, business and road safety can be immediately raised for assessment and action. This includes working with County, City, Town and Parish Councils through Strategic Partnerships, Local One Teams, Together Teams and voluntary agencies to deliver risk reduction activities.</p>