# **Strategic Risk Analysis**

(Supporting the Community Risk Management Plan 2022-2027)

The Fire and Rescue National Framework for England requires each fire and rescue service to prepare an Integrated Risk Management Plan (IRMP). We name our IRMP the Community Risk Management Plan (CRMP) and it is an overview of how we will align our services to keep people safe from fire and rescue-related risks by balancing our resources across Prevention, Protection and Emergency Response. The CRMP is framed by our statutory duties including those within The Fire and Rescue Services Act 2004, the Civil Contingencies Act 2004 and the Regulatory Reform (Fire Safety) Order 2005.

The CRMP planning process enables each service to assess foreseeable fire and rescue related risks in their area and to decide how to use resources in the most effective way to save lives, improve public safety and reduce emergency incidents. The planning is a continuous process with three main stages.

#### Stage 1 – identifying and assessing risk

To understand what risk looks like in Devon and Somerset we have reviewed data from partners at a local level as used national data sets, we have considered incidents attended in the past and forecasted future trends. We also asked people across Devon and Somerset about risk in their area, who they think is most at risk and what, if anything, they feel anxious about. This has helped us to better understand priorities and perceptions of risk and, where relevant, we will highlight this feedback throughout the CRMP.

#### Stage 2 - managing and reducing risk

We have assessed our current arrangements for managing each risk. We have also considered how we can work together with our communities and partners to continue to reduce the fire and rescue related risks over the next five years to keep everyone as safe as possible. We organise our work under three interrelated activities.

**Prevention:** preventing fires and other emergencies from happening in the first place.

**Protection:** The Service has a statutory duty to ensure that a range of buildings, other than private homes, comply with fire safety regulations.

**Response:** responding to and dealing with fires and other emergencies promptly, safely and effectively.

## Stage 3 - measuring performance and evaluating our impact

We will monitor the impact of our activities so that we understand the most effective and efficient ways to manage the risks in our area. We will regularly report our performance so that our staff and those who live or visit our area can see how we are doing.

Performance measures help us understand how individual and collective efforts contribute to achieving our objectives, and how we might need to alter our activities.



# **Identification of risks**

**What are the risks?** The table below gives a summary of the risks we have identified. On the following pages we explain these risks and how we are managing them.

Core operational activities and statutory duties	
Risk category	Identified risks
Fires	Dwelling fires
	High rise buildings
	Large commercial/industrial and agricultural fires
	Hospitals and residential care homes
	Hotels and guest houses
	Heritage property fires
	Fires on board vessels
	Secondary fires
	False alarms
Transport	Road traffic collisions
Hazardous materials	Hazardous materials sites and incidents (including responding to collapsed structures,
	bomb/terrorist attacks)
National risks	Major emergencies
	Resilience and business continuity
Other operational activities	
Risk category	Identified risks
Specialist rescues	Rescues from height and confined space
	Rescues from water
	Animal rescues
Environment and climate change	Severe weather events including flooding response and water rescue
Health and wellbeing	Medical response and health-related incidents

## Identified risks and how we plan to reduce them

**Risk category: fires** 

Risk identified: dwelling fires

#### Why is it a risk?

Most fire-related deaths and injuries occur when there is a fire in a home, so we need to make sure that we are working effectively to reduce the number of fires and limit their severity when they do happen.

#### Incident statistics

During the five-year period from April 2015 to March 2020<sup>1</sup>, there were 1,108 fire-related deaths<sup>2</sup> in dwellings in England, including 31 within our service. This equates to 3.6 deaths per million residents within our service area compared to the average within England of 4.0 deaths per million residents.

There were 11,617 serious injuries<sup>3</sup> in dwelling fires in England, including 402 within our service area. While there has been a very slight downward trend in dwelling fire injuries nationally, there has been a slight upward trend in injuries in our service area. This equates to 46.2 serious injuries per million residents within our service area compared to the average within England of 41.8 serious injuries per million residents.

Over the same period, there were 150,645 in England, including 4,893 in our service area. There has been a downward trend both nationally and within our service area, with our forecast<sup>4</sup> indicating that this is set to continue.

<sup>&</sup>lt;sup>1</sup> Based on pre-covid era from April 2015 to March 2020

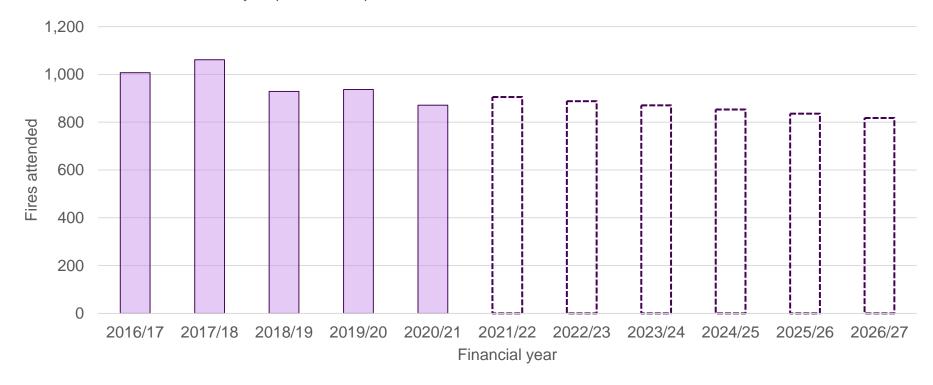
<sup>&</sup>lt;sup>2</sup> A fire death is reported when the cause of death is suspected or confirmed to be a direct result of the fire. Figures may be subject to change if a Coroner rules that a death that was suspected to be fire-related was caused by something other than fire.

<sup>&</sup>lt;sup>3</sup> A serious injury includes any non-fatal victim that attended hospital in an ambulance because of the incident, the injury may not be as a direct result of the fire.

<sup>&</sup>lt;sup>4</sup> Based on data submitted to the Home Office Incident Recording System April 2010 to March 2021 (pre-COVID). Note that there is a 95% confidence interval associated with the forecast.

## Number of dwelling fires attended, including forecast to 2026/27

Pre-Covid-19 forecast based on 10-year period from April 2009 to March 2020



□ Dwelling fires (- - - forecast)

#### Who or what is at risk?

Evidence from national and local<sup>5</sup> studies suggests that, while the overall risk of fire in the home is low, some people are at greater risk from fire than others. Common lifestyle, health and behavioural risk factors identified as being influential include:

<sup>5</sup> https://beta.dsfire.gov.uk/sites/default/files/2021-08/Themes%20in%20accidental%20fire%20deaths%202013-2017.pdf

- Living alone (over half of the people that die in dwelling fires in our area live alone)
- Challenges such as limiting long-term illness, mental health difficulties or mobility issues
- Misuse of alcohol or drugs (both prescription and illicit)
- Smoking
- Poor housekeeping, such as hoarding
- Not having a working smoke alarm (people that do not have a working smoke alarm are around eight times more likely to die in a dwelling fire<sup>6</sup>)

We know that the factors above are often more prevalent in certain groups, for example:

- Older people are more likely to experience health and mobility issues
- People living in rented properties
- People living in areas with high levels of deprivation, including those with high levels of unemployment, crime and poor educational attainment

 $<sup>^6 \, \</sup>underline{\text{https://www.gov.uk/government/statistics/detailed-analysis-of-fires-attended-by-fire-and-rescue-services-england-april-2020-to-march-2021/detailed-analysis-of-fires-attended-by-fire-and-rescue-services-england-april-2020-to-march-2021}\\$ 

## Risk identified: high rise buildings

#### Why is it a risk?

Seventy-two people died after a fire engulfed Grenfell Tower, a west London residential high rise building. More than 200 firefighters and 40 fire engines responded to the fire. 151 homes were destroyed in the building and the surrounding area.

The fire has impacted nationally on fire services' prevention, protection and emergency response arrangements, and will continue to do so as lessons are learnt, and recommendations from both the public inquiry and Independent Review of Building Regulations are implemented.

The immediate aftermath of the fire saw a multi-agency response to both reassure residents and assess the fire safety of these buildings, based on national government guidance.

High rise buildings present a higher risk due to their construction and lengthy escape routes. This makes it harder to evacuate the building and can increase the complexity of the firefighting.

#### Incident statistics

National data on high-rise<sup>7</sup> fires is not readily available, however, during the five-year period from April 2015 to March 2020, there has been a slight downward trend in the number of fires within purpose-built flats over four storeys high<sup>[1]</sup>, this has also been reflected in our service and our forecast suggests that this is likely to continue.

It is notable that in our service area, there was a distinct drop in these fires during 2018/19 and 2019/20, we think that it is likely that this is related to heightened awareness following the Grenfell Tower fire and the targeted intervention work that we undertook. As numbers appear to have increased to previous levels during 2020/21, our forecasting has excluded 2018/19 and 2019/20 as they appear to be exceptions.

Over the past five years, there have been 328 casualties<sup>[1]</sup> in purpose-built flats over four storeys in England, including 34 within our service area. Of the casualties within our service area, one was a fatality and 14 required treatments at a hospital.

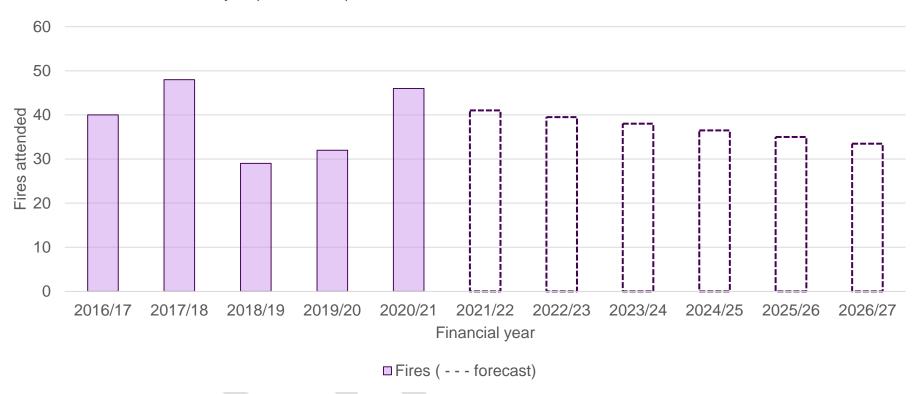
<sup>&</sup>lt;sup>7</sup> A high-rise building is defined as a building of more than 18 metres.

<sup>[1]</sup> Based on IRS dwelling types: Purpose Built High Rise (10+) Flats/Maisonettes, Purpose Built Medium Rise (4-9) Flats/Maisonettes

<sup>[1]</sup> Includes fatalities and injuries of any severity level

# Number of fires attended in purpose built flats of four or more storeys, including forecast to 2026/27

Pre-Covid-19 forecast based on 8-year period from April 2010 to March 2018



## Who or what is at risk?

There are approximately 160 high rise buildings across our service area with the majority located in the urban areas of Plymouth, Exeter and Torbay along with the larger towns in the two counties.

## Risk identified: large commercial, industrial and agricultural fires

#### Why is it a risk?

Business insolvency is at record levels across the UK. In 2019, 5,625 businesses closed in our service area (9.2 per cent of all enterprises). The impact of Covid-19 means that there is potential for arson and commercial fraud to increase<sup>8</sup>. The Association of British Insurers estimates that 29 per cent of all commercial fire claims in the UK can be considered as 'deliberate'.

Diversification in agriculture with more solar farms, battery storage and conversion of farm outbuildings into accommodation or light industrial units changes the risk of fire in rural locations.

#### Incident statistics

These incidents often require a significant amount of operational resource over a long period of time, on average lasting around five hours and requiring six fire engines.

During the five-year period from April 2015 to March 2020, there have been 13,153 fires within premises of this type<sup>9</sup> within England, including 618 within our service area. Both nationally and within our service area, around 14% of these incidents are recorded as being started deliberately.

During the same period, one death and 11 serious injuries were reported within our service area. National statistics on deaths at these premises is not readily available.

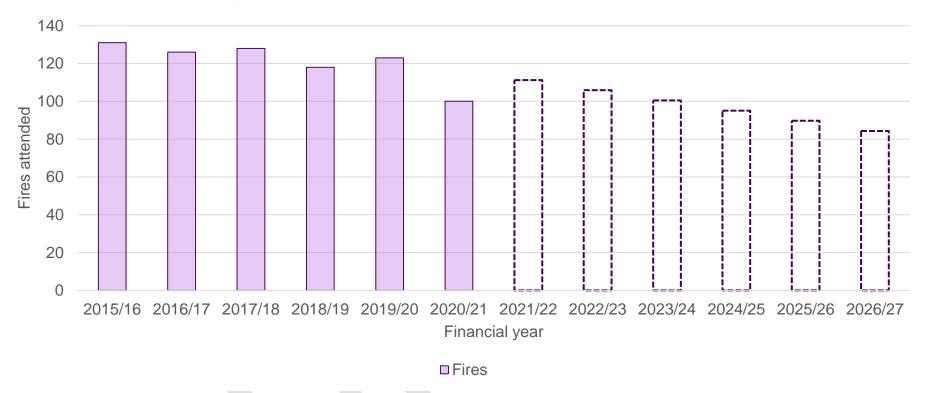
Our forecast indicates that incident levels are likely to continue in a downward trend over the coming years.

<sup>&</sup>lt;sup>8</sup> Office for national statistics business demography data

<sup>&</sup>lt;sup>9</sup> https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\_data/file/1021262/fire-statistics-data-tables-fire0304-300921.xlsx based on Industrial and Agricultural categories (definition within publication)

Number of fires attended in large commercial, industrial and agricultural premises, including forecast to 2026/27

Pre-Covid-19 forecast based on 11-year period from April 2009 to March 2020



#### Who or what is at risk?

Incidents at large premises can cause disruption to local services. For example, road or rail closures, or having to relocate waste processing to an alternative facility. Smoke from these incidents can impact local residents, crew safety and the environment and can sometimes lead to temporary evacuation of residential areas.

Depending on the scale of damage to the building and business there is a potential impact on the local economy and services including loss of employment.

## Risk identified: hospital and residential care home fires

### Why is it a risk?

Premises that have the potential for significant loss of life in the event of fire will be at the forefront of our risk-based approach to planning and delivering our services.

Hospitals, health care acute services<sup>10</sup> and residential care homes accommodate many people with greater levels of vulnerability due to health and wellbeing issues. This means that while the likelihood of a significant fire is low the potential severity is high, with the possibility of multiple deaths and injuries.

Our response to fires in such buildings can challenging due to hazardous materials, processes and often complex layouts and/or extended travel distances between entry and exit point.

There are around 75 hospital and medical care facilities within our service area and 730 registered residential care homes.

#### **Incident statistics**

National statistics are not readily available for this breakdown of incidents however we can compare hospital and medical related incidents levels. During the five-year period from April 2015 to March 2020, there have been 3,260 fires in hospitals and medical care facilities<sup>11</sup> in England, including 92 within our service area. Of the incidents in our area, there was one death and four serious injuries.

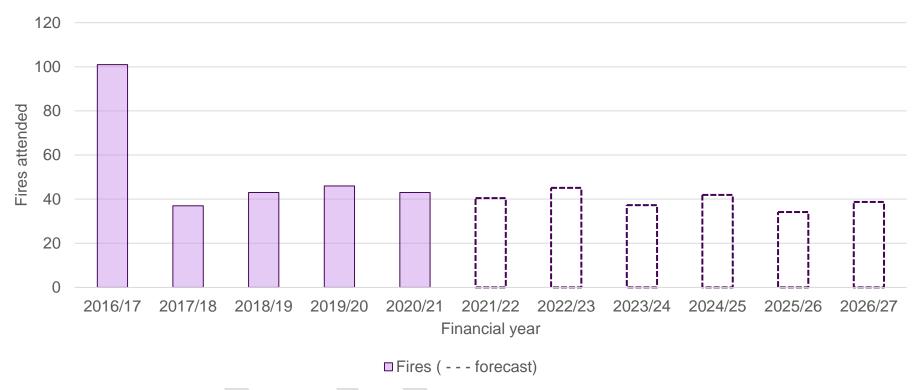
Our forecast indicates that incidents levels are likely to remain relatively steady over the coming years.

<sup>&</sup>lt;sup>10</sup> www.cqc.org.uk/guidance-providers/regulations-enforcement/service-types#acute-services

<sup>&</sup>lt;sup>11</sup> https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\_data/file/1021262/fire-statistics-data-tables-fire0304-300921.xlsx based on Hospital and Medical Care category (definition within publication)

Hospital, acute medical services and residential care home fires, including forecast to 2026/27

Pre-Covid-19 forecast based on 10-year period from April 2010 to March 2020



#### Who or what is at risk?

Hospitals, health care acute services and residential care homes accommodate many people with greater levels of vulnerability due to health and wellbeing issues. These issues may make it more complex to evacuate a building if there is a fire and could mean that they are less able to cope with smoke inhalation and consequences of fire.

If there is a significant incident in one of these settings it may have an impact on the wider community as services need to be relocated or vulnerable people need to be moved to new care facilities.

## Risk identified: hotel and guest house fires

## Why is it a risk?

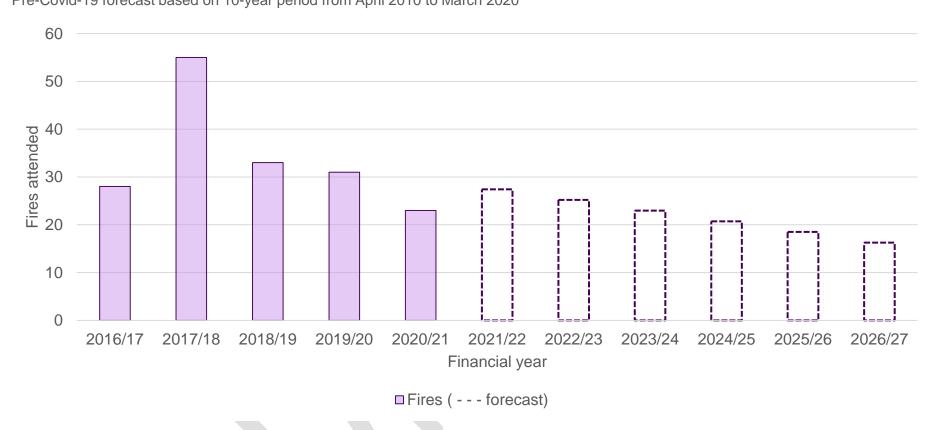
Similar to hospitals and residential care homes, hotels and guest houses have the potential for significant loss of life in the event of fire. Hotels and guesthouses have guests sleeping in unfamiliar surroundings, in the event of a fire they may be less aware of the layout of the building than they would if they were at home.

#### Incident statistics

Over the past five years, there have been 3,151 fires in hotels and boarding houses<sup>12</sup> within England, including 193 within our service area. Of the incidents within our area, one death (note this was sheltered housing – not self-contained) and 15 serious injuries were reported. National statistics on deaths at these premises is not readily available.

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\_data/file/1021262/fire-statistics-data-tables-fire0304-300921.xlsx based on Hotel, boarding houses, hostels etc. category (definition within publication)

# Hotel, hostel and boarding house fires attended, including forecast to 2026/27 Pre-Covid-19 forecast based on 10-year period from April 2010 to March 2020



## Who or what is at risk?

Guests and staff could potentially be at risk should a fire occur. There may also be an economic impact on the local community should there be a significant fire, with potential loss of employment.

## Risk identified: heritage buildings

### Why is it a risk?

Losing any historic building or landscape to fire, storm or flood would be a significant loss to local, and in some cases national or even international heritage and can have a range of impacts.

- Many of the buildings, structures and landscapes have unique features or contain irreplaceable works of art of local and national significance.
- There are approximately 8,000 thatched properties in our service area (6,000 are listed)<sup>13</sup>. In most cases, the damage to a thatched property after a fire is significant and has a major impact on the occupant.
- There are an average of 12 property fires involving thatch a year, this may not seem significant but they require a minimum of eight fire engines per incident and require an average of over 3,700 firefighter hours<sup>14</sup> per year.

#### Who or what is at risk?

Considerable impact on the local economy - many of these buildings are a significant reason for visitors to come to the local area and provide employment for residents.

These incidents present a significant challenge to our resources drawing them away from more urban areas of higher risk into the rural areas where most thatch properties are located.

<sup>&</sup>lt;sup>13</sup> The thatch estimate is based on English Heritage figures and that about 75% of thatched premises nationally are believed to be listed.

<sup>&</sup>lt;sup>14</sup> Five-year average 2015-19 (pre-COVID)

## Risk identified: secondary fires

## Why is it a risk?

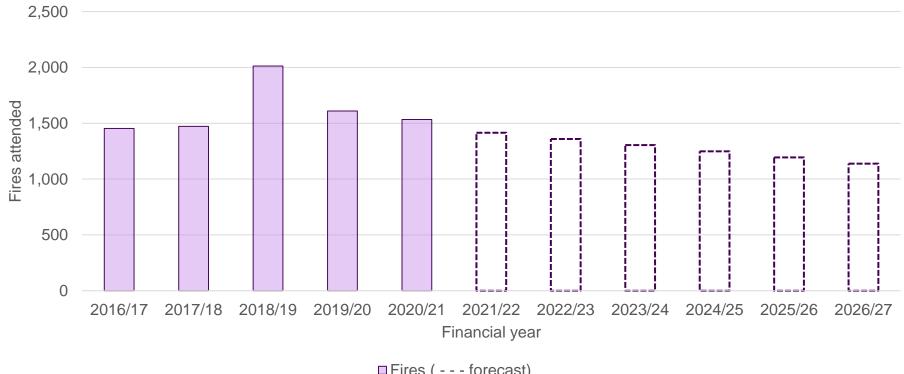
We use the term secondary fires to describe the majority of outdoor, grassland and refuse fires. These types of incidents can have an impact on the environment and local economy and can reduce the availability of fire engines to respond to incidents with a higher risk to life.

#### Incident statistics

During the five-year period from April 2015 to March 2020, there were 445,066 secondary fires in England, including 7,911 in our service area. There has been a downward trend in these incidents, both nationally and within our service area and our forecast suggests that this is likely to continue.

# Secondary fires attended, including forecast to 2026/27

Pre-Covid-19 forecast based on 11-year period from April 2009 to March 2020



□ Fires ( - - - forecast)

## Who or what is at risk?

While there is no direct life-risk associated with this category of incident<sup>15</sup> they can tie up resources, preventing them from attending other incidents that may have a greater level of risk.

Large grass fires can have a significant impact on the environment damaging natural habitats, endangering wildlife and affecting air quality in residential areas.

<sup>&</sup>lt;sup>15</sup> If an injury is reported a the fire will be reported as a primary incident.

#### Risk Identified: fires on board vessels

## Why is it a risk?

With 659 miles of coastline Devon and Somerset has many harbours and estuaries as well as being home to the largest naval dockyard in Western Europe at Devonport.

Although the Service does not have an offshore firefighting responsibility, we have a duty to respond to fires in vessels alongside and within county boundaries. The Service attend an average of 12 fires on vessels each year.

Incidents involving vessels in the marine and inland waterway environment are not commonplace for fire and rescue staff; they can be complex to deal with, range from incidents involving small vessels to large sea-going vessels, and can include military vessels.

A fire on a vessel is a hazard because of the way vessels are constructed; getting in and getting out is difficult, and fire can spread easily through conduction via metal bulkheads and air handling machinery.

#### Risk identified: false alarms

#### Why is it a risk?

An unwanted or false alarm is 'a fire alarm (signal) resulting from a cause other than a fire'.

The impact of false alarms is significant.

- Unwanted alarms divert the fire service away from attending real emergencies.
- Responding to unwanted alarms creates unnecessary risk to fire crews and members of the public when fire engines are driven under 'blue light' conditions
- Occupants of buildings that have frequent unwanted alarms get used to them and may delay their response, or worse not respond at all, to a real emergency
- Unwanted alarms disrupt other prevention activities (like home safety visits and arson reduction activity) and firefighter training.
- These calls have a financial impact for our Service, as we must send vehicles and firefighters when they may not be needed.
- Repeated false alarms can have a significant impact on a business's productivity due to continual interruptions.

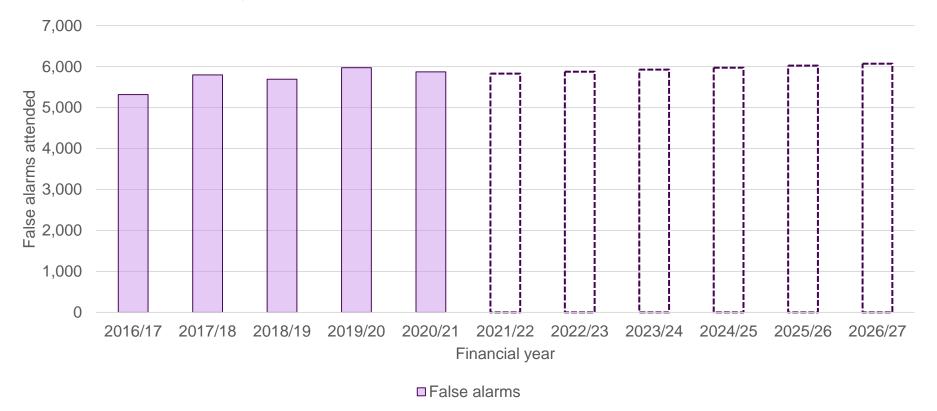
#### Incident statistics

During the five-year period from April 2015 to March 2020, there were 1,127,279 fire false alarms in England, including 27,758 within our service area. There has been an upward trend in the number of false alarms attended over this period, both nationally and within our service area. Our forecasts suggest that there will be a slight upward trend in the number of fire-false alarm incidents that we attend over the coming years.

The 2019/20 financial year saw false alarms account for 38% of the incidents that we attended. The greatest proportion of false alarms are AFAs actuations, accounting for around 70% of false alarm incidents that our service attends.

## Number of fire-false alarms attended, including forecast to 2026/27

Pre-Covid-19 forecast based on 11-year period from April 2009 to March 2020



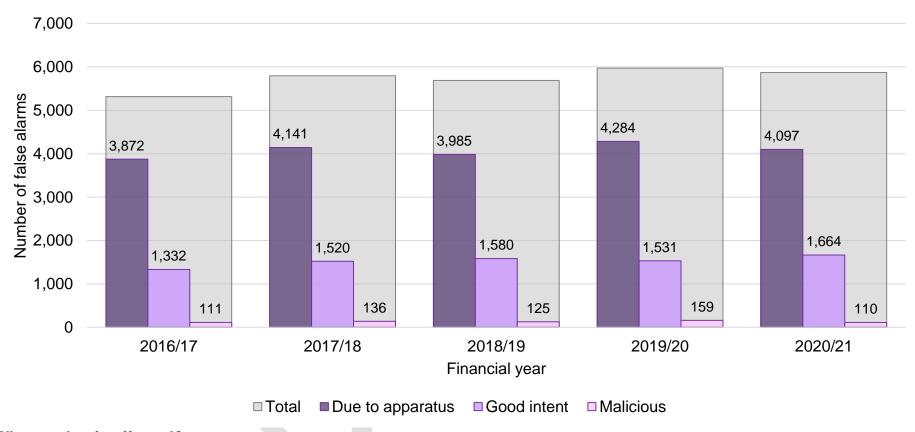
There are three high-level categories of fire false alarms:

**Due to apparatus** calls are where a fire alarm or fire-fighting equipment operate (including accidental initiation by persons) in error we refer to these as (AFAs).

Good intent calls are made in good faith in the belief that the FRS really would be attending a fire.

Malicious false alarms are made with the intention of getting the FRS to attend a non-existent incident.

## Number of fire-false alarms attended, by category



## Who or what is affected?

While these incidents do not carry a significant risk in themselves, the knock on impact of our resources being committed to responding calls that turn out to be false alarms means that they may not be available to respond to another, more serious incident. This can mean that we have to send a resource from further away, extending the time that it takes us to arrive at the incident.

Occupants of buildings where there are repeat false alarms become comlacent, and may be at risk if there were to be a real fire.

Risk category: transport

Risk identified: road traffic collisions (RTC)

#### Why is it a risk?

Our service area has a network of over 13,160 miles of roads (5% of the UK road network). Most of these (90.4%) are smaller, rural roads and country lanes with only 1.7% are major roads.

In our engagement survey, people told us that road traffic collisions are a real cause of concern and anxiety in their communities, and it remains a key priority for us.

In the five years from January 2015 to December 2019 there were 17,013 crashes<sup>16</sup> in the Devon and Somerset area. In 3,189 of these crashes at least one person died or was seriously injured (KSI).

During the five-year period from April 2015 to March 2020, fire services in England attended 153,077 RTCs, however there has been a downward trend over this period.

#### Incident statistics

In our service, we attend RTCs where a person is physically or medically trapped or where the vehicle needs to be made safe. An average of 8,000 firefighter hours per year are spent at these incidents.

During the five-year period from April 2015 to March 2020, we have attended 5,555 RTCs. As with the national data, our service has seen a downward trend over this period and our forecasts suggest that this is likely to continue over the coming years.

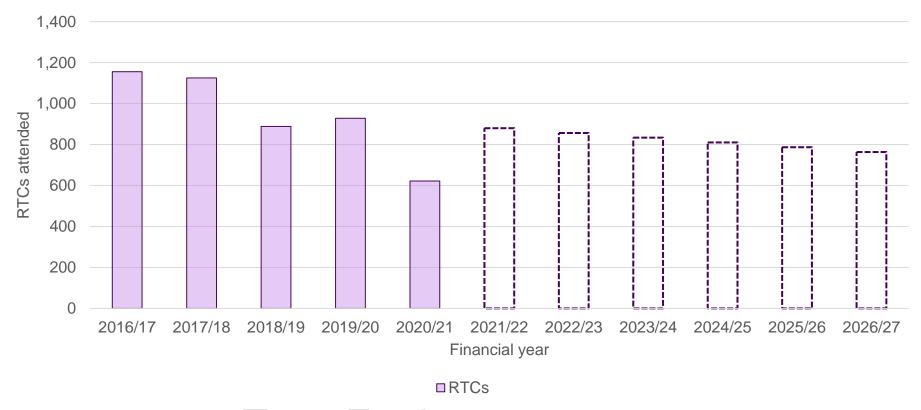
These incidents resulted in 2,835 people being killed or seriously injured <sup>17</sup>.

<sup>17</sup> Based on our understanding at the time of the incident.

<sup>&</sup>lt;sup>16</sup> From Police STATS 19 data

## Number of RTCs attended, including forecast to 2026/27

Pre-Covid-19 forecast based on 11-year period from April 2009 to March 2020



#### Who or what is at risk?

Nineteen per cent of people killed on the roads are aged between 16 and 25. Almost a quarter of those seriously injured are also in this age group<sup>18</sup>.

Men between the ages of 16 and 30 are the highest risk group.

<sup>&</sup>lt;sup>18</sup> Police STATS 19 dataset

Risk category: specialist rescues

Risk Identified: rescues from water

## Why is it a risk?

Specialist rescues are not statutory responsibilities for fire and rescue services, but there is an expectation and a need for our communities and partner agencies to be supported at these incidents. We also have legislative and regulative requirements that apply when attending statutory duty incidents involving flooding, confined space and working at height.

## Water safety

Drowning is one of the UK's leading causes of accidental death. Each year more than 300 people drown after tripping, falling or just by underestimating the risks associated with being near water. Many more people are left with life changing injuries in water related incidents.

The Department for Environment, Food and Rural Affairs (Defra) is the lead government department for major flooding in England. However, responding agencies report to a range of government departments, requiring co-ordination in the event of flooding over a wide area.

#### **Incident statistics**

Tragically, on average, around 400 people drown around the UK every year and a further 200 take their own lives on our waters.

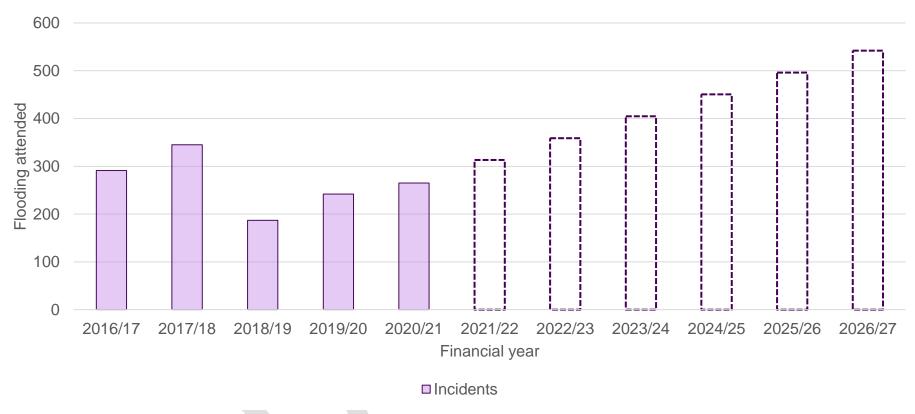
During the five-year period from April 2015 to March 2020, our service attended 1,353 flooding incidents of which 162 were rescues from water, 96 of these were from vehicles. Our forecast suggests that we may see an upward trend in these incidents over the coming years.

Based on national figures from the WAID database, during the 2020 calendar year there were 176 accidental drownings in England of which 10 were in our service area.<sup>[1]</sup> Sixty-eight people accidentally drowned on the coast and 90 (just over half of the drownings) took place in lakes/rivers/ponds/streams/canals/harbours.

<sup>[1] 2020</sup> Annual Fatal Incident Report, Annual reports and data - National Water Safety Forum

# Number of flooding incidents attended, including forecast to 2026/27

Pre-Covid-19 forecast based on 11-year period from April 2009 to March 2020



## Who or what is at risk?

National statistics show that more people drowned from falling into water whilst walking or running than from swimming. Nearly 80% of accidental drowning victims were male and 50% of accidental drowning victims aged 25-34 in 2020 had reported presence of alcohol and/or drugs.

## **Rescues from height and confined spaces**

## Why is this a risk?

Every time we receive an emergency call for assistance, we want to make sure we can respond promptly, safely and effectively. To help us do this, we prepare, plan and train for all kinds of emergencies including maintaining a capability for working at height and confined space to ensure the safety of our staff as well as attending these types of rescues.

#### Incident statistics

There are an average of 50 rescues from height per year across our service area and approximately 80 animal rescues from height or depth.

#### **Animal rescues**

### Why is this a risk?

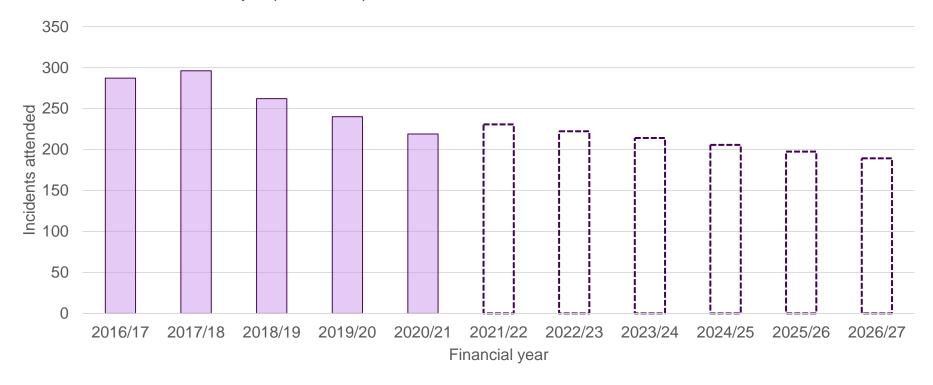
Our service area is largely rural, and we are often called upon to help rescue animals including wildlife, pets and livestock. While we do not have a duty to respond to these incidents, we do attend if there is likely to be a risk to a member of the public if they attempt to rescue the animal themselves or if an animal is trapped in a location that is particularly challenging to access.

#### **Incident statistics**

During the five-year period from April 2015 to March 2020, there were 23,451 animal rescue incidents in England, including 1,325 within our service area. While there has been a slight upward trend nationally during this period, our service has seen a very slight downward trend.

# Number of animal rescues attended, including forecast to 2026/27

Pre-Covid-19 forecast based on 11-year period from April 2009 to March 2020



□ Animal rescue incidents ( - - - forecast)

## Who or what is at risk?

These incidents generally pose a low risk to human life and can draw resources away from attending more serious incidents, requiring resources to be sent from farther away and potentially extending the time it takes us to arrive.

Risk category: hazardous materials

Risk Identified: hazardous materials sites and incidents

## Why is it a risk?

The potential risks of hazardous chemicals and other dangerous substances, which can cause serious injuries to people and damage to the environment include:

- explosive substances
- gases
- flammable liquids and solids
- oxidising substances
- poisonous substances
- radioactive substances
- corrosive substances.

There are a small number of industries whose products or activities could have a serious impact on people's health and safety or a damaging effect on the environment in the event of an accident.

- Those industries that could be extremely hazardous are also subject to specific safety regulations. Thirteen sites across our service area are covered by the Control of Major Accident Hazards (COMAH) regulations.
- There are also three licensed nuclear sites Devonport Dockyard and two at Hinkley Point.

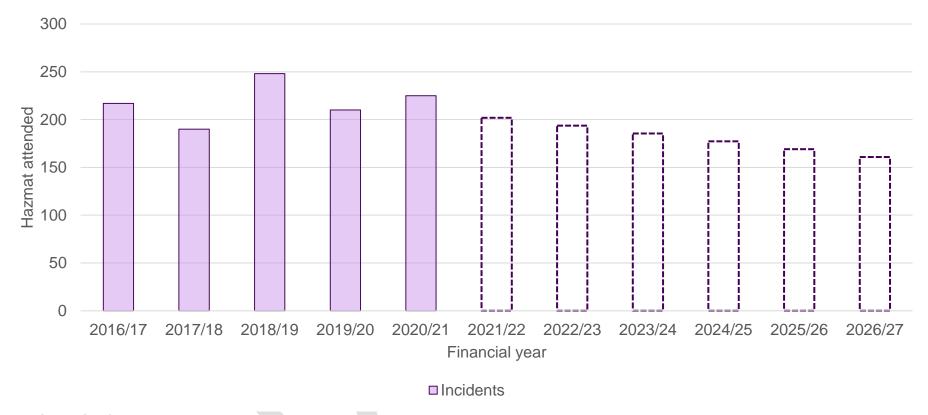
#### Incident statistics

During the five-year period from April 2015 to March 2020, we attended 1,138 hazardous material incidents, of these 556 were from spills or leaks. Our forecast suggests that we are likely to see a reduction in these incidents over the coming years.

While the number of hazardous material incidents is relatively low, we have to deal with incidents that have an element of hazardous materials and environmental protection risk on a regular basis. For example, fuel spills from road traffic collisions and materials containing asbestos at many domestic and commercial fires.

The Service attends an average of 60 suspected carbon monoxide poisoning incidents each year.

Number of hazardous material incidents attended, including forecast to 2026/27 Pre-Covid-19 forecast based on 11-year period from April 2015 to March 2020



#### Who is at risk?

There is emerging evidence that repeated exposure to hazardous materials may have a long-term health impact on firefighters, including an increased risk of developing some forms of cancer.

Pollution from industrial and transport incidents involving such substances may require people to be evacuated from their homes and may lead to adverse effects on water courses and air quality.

Contamination could spread to agricultural land and wildlife populations. Tackling these incidents requires specialist equipment and training and often takes a considerable time to bring under control.

Risk category: environment and climate change

Risk identified: extreme weather events, flooding and wildfires

Why is it a risk

## Why it's a risk and who or what it affects

We need to consider the likelihood of severe weather events when designing the our overall operational capacity and resilience.

With increasing global temperatures, the UK is experiencing an increase in the frequency and severity of extreme weather events. Among the most serious events are storms and gales, extreme temperatures, heavy snow, drought and flooding. These can have a severe local impact on both the natural environment with the loss of valuable habitats, and on local communities with disruption, damage to property and potential for injury and loss of life.

A continuing pattern of warmer, drier summers, warmer, wet winters and more periods of intense rainfall and storms is predicted. With significant areas of wide, low-lying river valleys across both counties, the risk of flooding (including flash flooding) is likely to increase.

In fact, over the last decade the Service has seen an increase in the number of incidents linked directly to extreme weather events. This has had a significant impact on overall incident numbers year-on-year, with the operational activity focused within short timeframes and not spread out across the year.

During the winter of 2013/14 almost 45 square miles of the Somerset levels was under water, cutting off a number of communities.

#### Who or what it affects?

- people living and working close to areas at risk of flooding
- people travelling during severe weather events
- businesses in areas at risk of flooding
- areas susceptible to wildfire including heathland, moorland and woodland

## Risk category: national risks

Risk identified: Major emergencies, resilience and business continuity

## Why it's a risk and who or what it affects

The Civil Contingencies Act (2004) requires emergency services, local authorities, the environment agency and health providers to work together to make sure they know how to respond in a major incident. This includes joint risk assessment, planning, training and exercising. The act also requires consultation with utilities, transport services and voluntary sector responders.

The definition of a major incident is "an event or situation with a range of serious consequences which requires special arrangements to be implemented by one or more emergency responder agency".

Large scale incidents have a significant impact on the health and wellbeing of our communities. For public sector and emergency service providers this impact can often be two-fold, as the demand for our services can increase as a result of the crisis or disaster, but at the same time, we can also be hit with the same pressures as other organisations on the ability to maintain services over sometimes extended periods. Such as during Covid-19.

This requires us to have well tested contingency plans in place with our Local Resilience Forum (LRF) partners for the local impact of national and major emergencies which are identified in the community risk registers for each LRF and include:

- natural and environmental hazards (such as severe weather events like wide scale flooding)
- cybercrime and fraud
- human and animal disease
- · terrorism including marauding terrorist attacks
- social disruption
- major accidents and system or infrastructure failures.

#### **National Resilience**

The National Resilience Capabilities Programme was introduced in 2003 to strengthen the country's ability to handle emergencies and crises. The Programme enhances the capability and capacity of the fire and rescue service to respond to a range of incidents as well as a providing a national coordination facility, and includes equipment and capability to support:

mass decontamination

• urban search and rescue - able to respond to any major unstable or collapsed structure

• firefighting and flood relief with High Volume Pumps (HVPs)

• enhanced logistical support.

Risk category: health

Risk identified: medical response and health related incidents

## Why is it a risk?

As part of the wider emergency service community, we understand the pressures that our police and ambulance services face with limited resources and high levels of demand. To support our colleagues in the police and ambulance service and to help keep our communities safe we have 20 co-responder stations that have the capability to respond to medical emergencies. We also support the police and ambulance service to gain entry to properties where it is considered that there may be a medical issue or risk to life.

The number of people aged 90+ are expected to double in size by 2043<sup>19</sup>. The risks associated with ageing will increase the demand for medical response.

#### **Incident statistics**

During the 2019/20 financial year we attended over 150 suicide related incidents.

During the same period, we have attended 14,483 medical incidents. Between April 2017 and March 2020, we have attended 1,991 gaining entry incidents

## Who is affected?

We know from our analysis that many of the people that we engage with through our community safety activities are also affected by health-related issues.

<sup>19</sup> ONS mid-year population estimates

Mental health problems are common across all sectors of society. It is estimated that in any one year approximately one in four British adults experiences at least one diagnosable mental health disorder. The increase in mental health issues puts additional pressure on health services and results in increasing numbers of suicides.

Health related incidents and particularly those linked with suicide can have a significant impact on the crews attending.

## **Glossary**

**Appliance** – The general term used to describe all firefighting vehicles, including the standard fire engine or pumping appliance

**AFA** – Automatic Fire Alarm. An emergency call automatically generated by remote monitoring equipment in non-domestic premises.

**Arson** - The criminal act of deliberately setting fire to property.

**Capital reserves** – A sum of money set aside to help fund investment in our assets (vehicles and buildings). We save previous years' underspends, so we don't need to borrow more money in the short-term.

**Community risk** - The risk of unwanted events that might occur in the community, which Devon and Somerset Fire and Rescue Service aims to reduce. Includes fires, road traffic accidents and other incidents that the Service might respond to.

**Co-responders** - on-call firefighters who receive enhanced training and respond to medical emergencies in their communities in support of the ambulance service.

**ERS** – Emergency Response Standard, A risk based target for response times and number of personnel to attend all relevant emergency incidents in Devon and Somerset.

**Gaining entry** - an initiative where firefighters assist the ambulance service to get into properties where they suspect there is an unconscious or unresponsive casualty inside.

**Hazmat** – Hazardous materials like chemicals, fuel spillages, substances that can cause harm to persons and or environment.

**HMICFRS** – Her Majesty's Inspectorate of Constabularies and Fire and Rescue Services. The body that independently assesses the effectiveness and efficiency of the police and fire service.

**Incident** - An event requiring fire service assistance.

**ICT** – Information and Communications Technology. A term used to cover any item of equipment that is used to send or receive information electronically.

**Local Resilience Forum** – are multi-agency partnerships made up of representatives from local public services, including the emergency services, local authorities, the NHS, the Environment Agency and others. These agencies are known as Category 1

Responders, as defined by the Civil Contingencies Act. They work to identify potential risks and produce emergency plans to either prevent or mitigate the impact of any incident on their local communities.

**National resilience** – The National Resilience Programme was introduced in 2003 to strengthen the country's ability to handle emergencies and crises. The national resilience assets are owned by the fire and rescue services which host them. Servicing of the vehicles and procurement of equipment for them is managed centrally.

The programme delivers:

- mass decontamination
- urban search and rescue
- high volume pumping capacity
- operational logistics and support
- long term capability management.

**On-call firefighters** - Firefighters recruited to be available on-call close to their local fire station for a certain minimum number of hours per week, plus regular training. They carry a pager to call them to the fire station when an incident happens in their area. Many have other full time employment or a lifestyle that enables them to commit a certain number of hours per week to be on-call. They are paid by the hour for each hour they commit to be available; we call this 'pay for availability'.

**Operational Risk** - The risk of unwanted events that might occur to the Service while carrying out its operations. Includes firefighter occupational accidents or illness.

**Prevention** – Activity associated with fire safety in the home and community.

**Primary Fire** - Fires in buildings, vehicles and outdoor structures.

**Protection** – Sometimes referred to as 'Business Safety'. This activity is linked to the advice and guidance for regulated premises and enforcement of the Regulatory Reform Order 2005.

**Psychological safety** - An environment where staff feel included, safe to learn, safe to contribute and safe to challenge.

**Resilience** – The ability to respond to major or larger incidents whilst maintaining the core service provision. This is made possible through effective emergency planning and flexible resource arrangements.

**Revenue spending –** Our day-to-day expenses such as salaries, heat, fuel and uniforms.

**Risk analysis** – The process of examining in detail the risks that could affect the communities in Devon and Somerset.

RTC – Road Traffic Collision. An incident involving vehicles on the highway.

**Safeguarding** - Protecting an individual's right to live in safety, free from abuse and neglect. It is about people and organisations working together to prevent and stop both the risks and experience of abuse or neglect, while at the same time making sure that the adult's wellbeing is promoted including, where appropriate, having regard to their views, wishes, feelings and beliefs in deciding on any action.

**Secondary fire** - The majority of outdoor fires, including grassland and refuse fires.

**SSC** – Special Service Call. Non-fire related incidents requiring the attendance of an appliance or officer. Examples include flooding, animal rescues, lift releases and hazardous materials.

**Wholetime** – Permanent contract operational personnel.

#### Data sources:

## **CRMP**

Office for national Statistics:

- mid-year population estimates
- household projections for England

Indices of multiple deprivation NOMIS labour market statistics Department for Transport data table RAS50012 DSFRS Incident data

## **Data Sources Strategic Document**

**National Fire Statistics** 

Themes in accidental fire deaths 2013-2017 (dsfire.gov.uk)

Detailed analysis of fires attended by fire and rescue services, England, April 2020 to March 2021 - GOV.UK (www.gov.uk) https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\_data/file/1021262/fire-statistics-data-tables-fire0304-300921.xlsx

## Office for national Statistics:

- Business demography data
- mid-year population estimates

Annual reports and data | National Water Safety Forum Environment Agency Flood Zone 2

English Heritage Listed building data