

# **Devon and Somerset Fire and Rescue Service**

## **Strategic Risk Analysis (November 2021)**

(Supporting the draft Community Risk Management Plan 2022-2027)

This document directly supports the draft Community Risk Management Plan and should be read in conjunction with the Equality Impact Assessment.

The Fire and Rescue National Framework for England requires each fire and rescue service to prepare an Integrated Risk Management Plan (IRMP). We name this the Community Risk Management Plan and it sets out the fire and rescue related risks facing our communities and how we intend to manage them. It demonstrates how our protection, prevention and response activities have and will be used collectively to prevent or mitigate fires and other incidents. The plan is framed by our statutory duties and responsibilities including those within the Fire and Rescue Services Act 2004, the Civil Contingencies Act 2004 and the Regulatory Reform (Fire Safety) Order 2005.

## Planning process

The Community Risk Management Plan planning process enables each service to assess foreseeable fire and rescue related risks in their service 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 locally and nationally, we have considered incidents that we have attended and forecasted future trends. We have also asked people across Devon and Somerset about risks 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 highlight this feedback throughout the plan.

### 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 Service 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.

| <b>Core operational activities and statutory duties</b> |   |
|---|---|
| <b>Risk category</b>                                    | <b>Identified risks</b>   |
| Fires   | Dwelling fires<br>High-rise buildings<br>Large commercial, industrial and agricultural fires<br>Hospitals and residential care homes<br>Hotels and guest houses<br>Heritage property fires<br>Secondary fires<br>Fires on-board vessels<br>False alarms |
| Transport   | Road traffic collisions   |
| Hazardous materials                                     | Hazardous materials sites and incidents (including responding to collapsed structures, and bomb or terrorist attacks)   |
| National risks  | Major emergencies<br>Resilience and business continuity   |
| <b>Other operational activities</b>                     |   |
| Specialist rescues                                      | Rescues from height and confined space<br>Rescues from water<br>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

### Fires

#### 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 in our Service area. 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 in our Service area. While there has been a very slight downward trend in the number of dwelling fire injuries nationally, there has been a slight upward trend in our Service area. This equates to 46.2 serious injuries per million residents within our Service area compared to the England average<sup>4</sup> of 41.8 serious injuries per million residents.

Between April 2015 and March 2020 there were 150,645 dwelling fires in England including 4,893 in our Service area. There has been a downward trend both nationally and in our Service area, with our forecast<sup>4</sup> indicating that this is set to continue.

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<sup>1</sup> Pre-Covid-19.

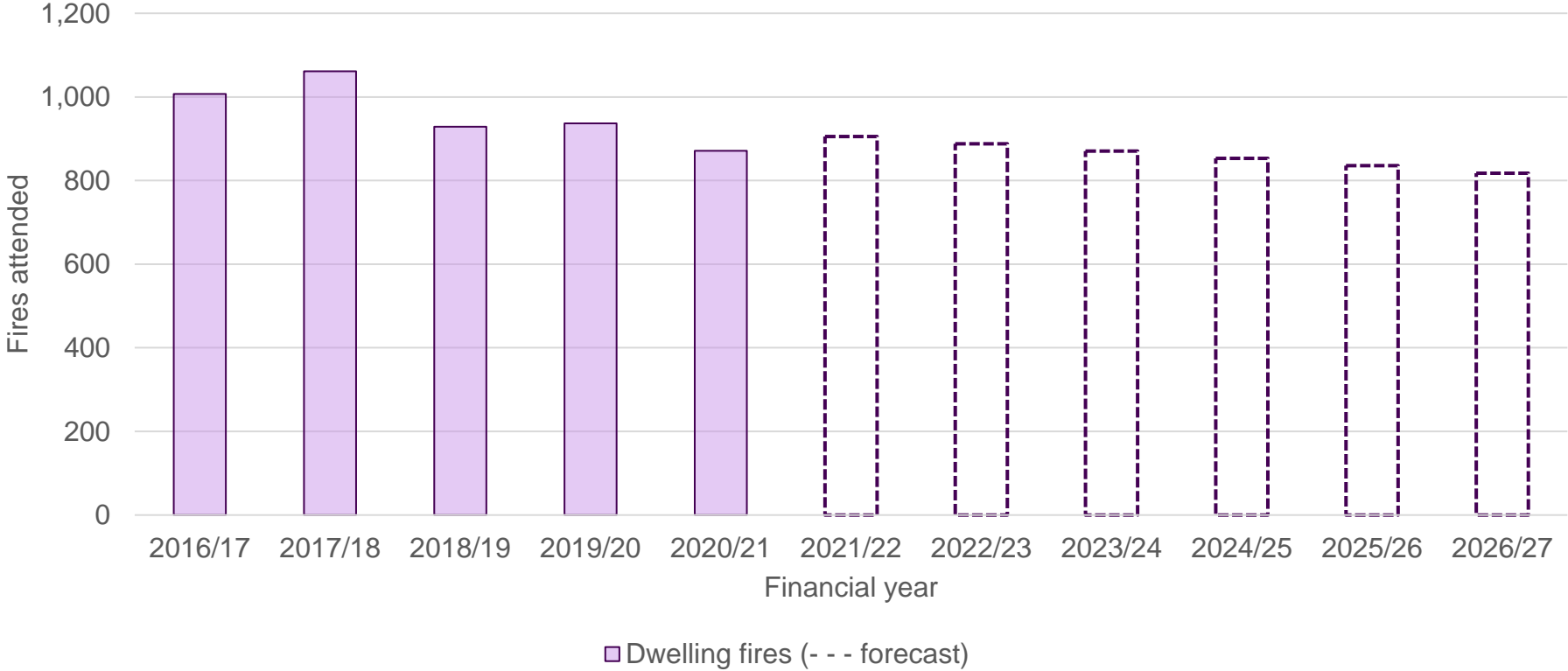
<sup>2</sup> A fire death is reported when the cause of death is suspected or confirmed to be a direct result of the fire. Figures may be subject to change if a coroner rules that a death that was suspected to be fire-related was caused by something other than fire.

<sup>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>4</sup> Based on data submitted to the Home Office Incident Recording System April 2010 to March 2021 (pre-Covid-19). 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 11-year period from April 2009 to March 2020



## Who or what is at risk?

Evidence from national and local studies<sup>5</sup> 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:

- 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<sup>7</sup>
- people living in rented properties<sup>8</sup>
- people living in areas with high levels of deprivation, including those with high levels of unemployment, crime and poor educational attainment<sup>9</sup>.

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

<sup>6</sup> [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](https://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)

<sup>7</sup> South West fatal fire review.

<sup>8</sup> Our data and Experian Mosaic.

<sup>9</sup> Our data and ONS Indices of Multiple Deprivation.

## High-rise building fires

### 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 and 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.<sup>10</sup> This makes it harder to evacuate the building and can increase the complexity of the fire fighting.

### Incident statistics

National data on high-rise fires is not readily available. During the five-year period from April 2015 to March 2020, there has been a slight downward trend in the number of fires in purpose-built flats<sup>11</sup> over four storeys high<sup>12</sup>, and this has been reflected in our Service area. Our forecast suggests that this trend is likely to continue.

In our Service area there was a distinct drop in the number of high-rise fires during 2018/19 and 2019/20. 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.

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<sup>10</sup>A high-rise building is defined as a building of more than 18 metres.

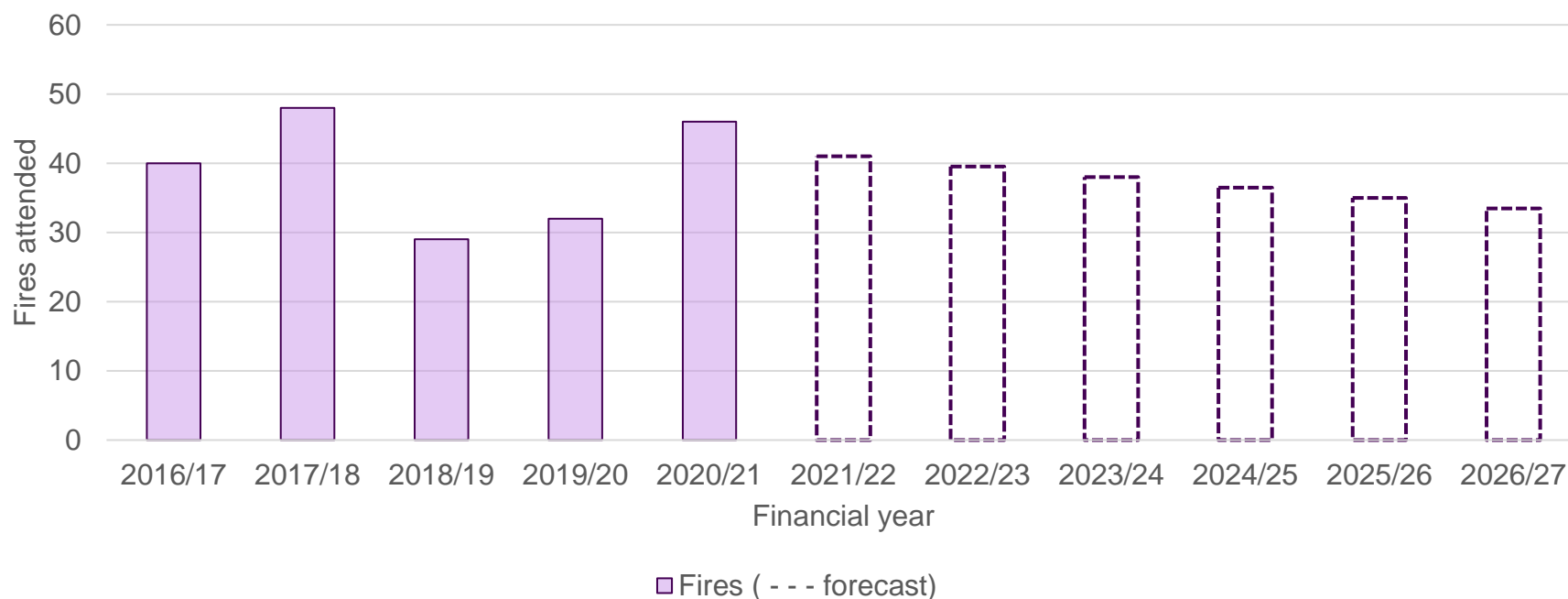
<sup>11</sup> FIRE0205: Primary fires, fatalities and non-fatal casualties in dwellings attended by fire and rescue services in England, by dwelling type and fire and rescue service.

<sup>12</sup> Based on IRS dwelling types: purpose built high-rise (10+) flats/maisonettes, purpose built medium rise (4-9) flats/maisonettes.

Over the past five years there have been 328 casualties<sup>13</sup> in purpose-built flats over four storeys in England. Of the 34 casualties in our Service area, there was one fatality and 14 people required hospital treatment.

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

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



### Who or what is at risk?

There are around 160 high-rise buildings across our Service area with the majority located in the urban areas of Plymouth, Exeter and Torbay and other larger towns.

<sup>13</sup> Includes fatalities and injuries of any severity level.



## 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% of all enterprises)<sup>14</sup>. The impact of Covid-19 means that there is potential for arson and commercial fraud to increase<sup>14</sup>. The Association of British Insurers estimates that 29% 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 were 13,153 fires in premises of this type<sup>15</sup> in England, 618 of them in our Service area. Both nationally and in our Service area, around 14% of these incidents were recorded as being started deliberately.

During the same period, one death and 11 serious injuries were reported within our Service area. National statistics for the number of deaths at these type of premises is not readily available.

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

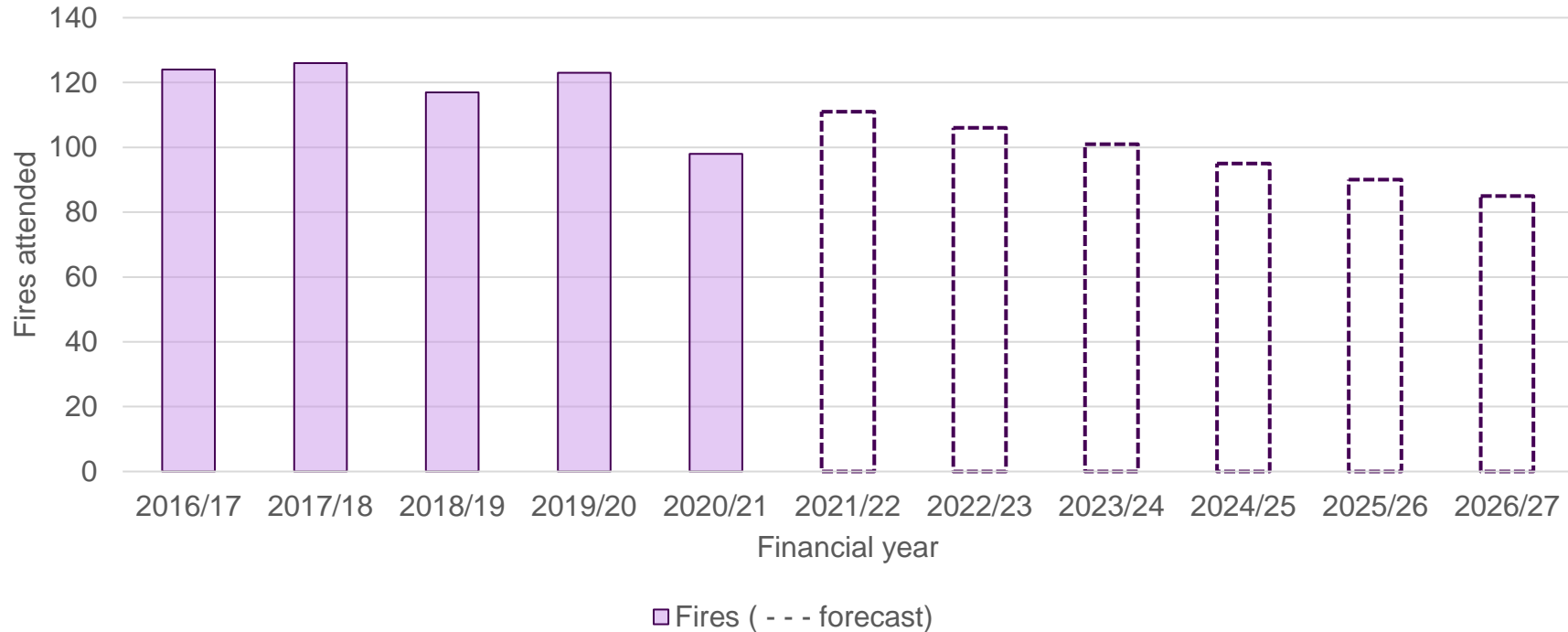
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<sup>14</sup> Office for national statistics business demography data.

<sup>15</sup> [assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/1021262/fire-statistics-data-tables-fire0304-300921.xlsx](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.

## 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>16</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 be challenging due to hazardous materials, processes and often complex layouts or extended travel distances between entry and exit point.

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

### Incident statistics

National statistics are not readily available for incidents in these settings, however we can compare hospital and medical related incident levels. During the five-year period from April 2015 to March 2020, there were 3,260 fires in hospitals and medical care facilities<sup>17</sup> in England, including 92 in our Service area. Of the incidents in our area, there was one death and four serious injuries.

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

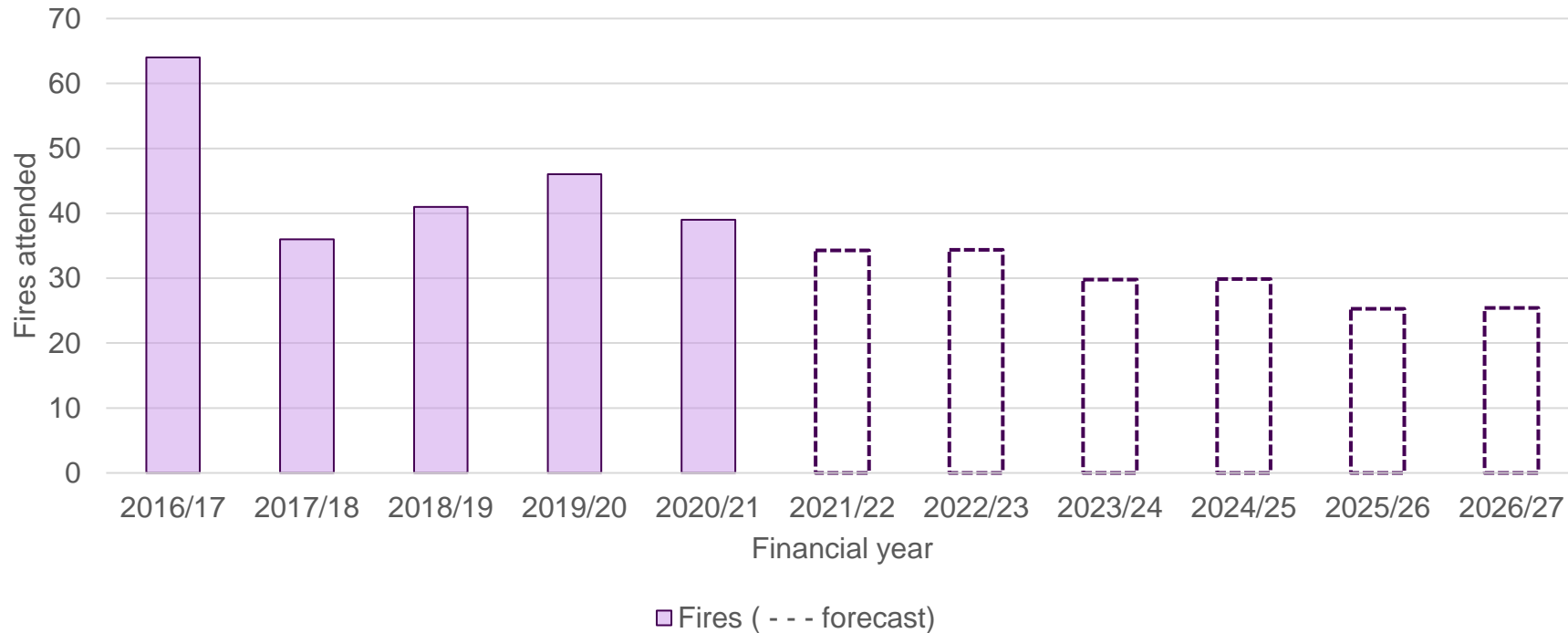
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<sup>16</sup> [cqc.org.uk/guidance-providers/regulations-enforcement/service-types#acute-services](https://cqc.org.uk/guidance-providers/regulations-enforcement/service-types#acute-services).

<sup>17</sup> [assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/1021262/fire-statistics-data-tables-fire0304-300921.xlsx](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. This may make it more complex to evacuate a building if there is a fire and could mean that these people are less able to cope with smoke inhalation and the 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.

## 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 guest houses have guests sleeping in unfamiliar surroundings, so 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

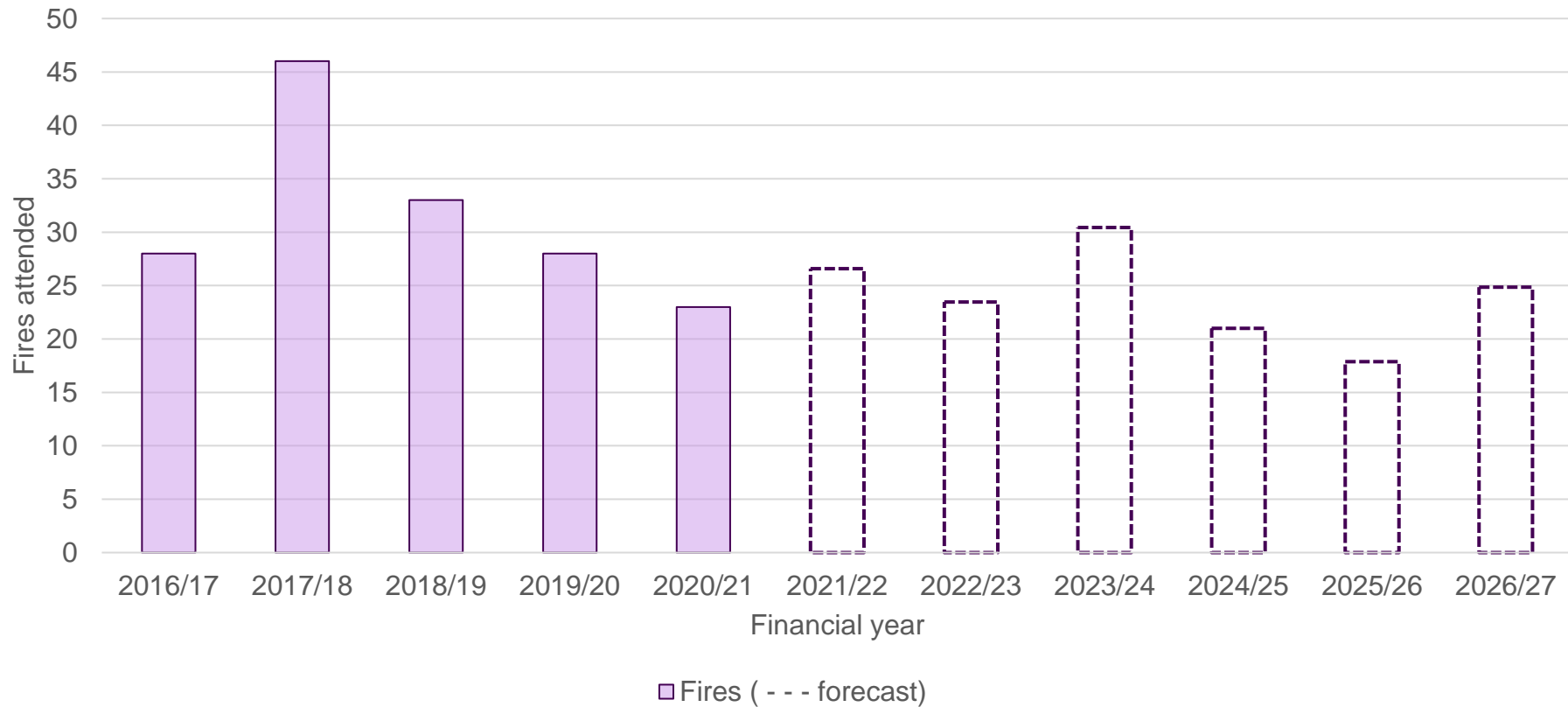
Over the past five years, there have been 3,151 fires in hotels and boarding houses<sup>18</sup> in England. In our Service area there were 179 incidents, one death (in sheltered housing, not self-contained) and 15 serious injuries. National statistics on deaths at these premises is not readily available.

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<sup>18</sup> [assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/1021262/fire-statistics-data-tables-fire0304-300921.xlsx](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 and guest 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 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.

## Heritage building fires

### 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 around 8,000 thatched properties in our Service area (6,000 are listed)<sup>19</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 in our Service area 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>20</sup> per year.

### Who or what is at risk?

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 thatched properties are located.

They may have a 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.

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<sup>19</sup> The thatched estimate is based on English Heritage figures and that about 75% of thatched premises nationally are believed to be listed.

<sup>20</sup> Five-year average 2015-19 (pre-Covid-19)

## 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. We are expecting significantly more wildfires in the years ahead because of climate change, so need to ensure that we are equipped to deal with an increase in this risk type.

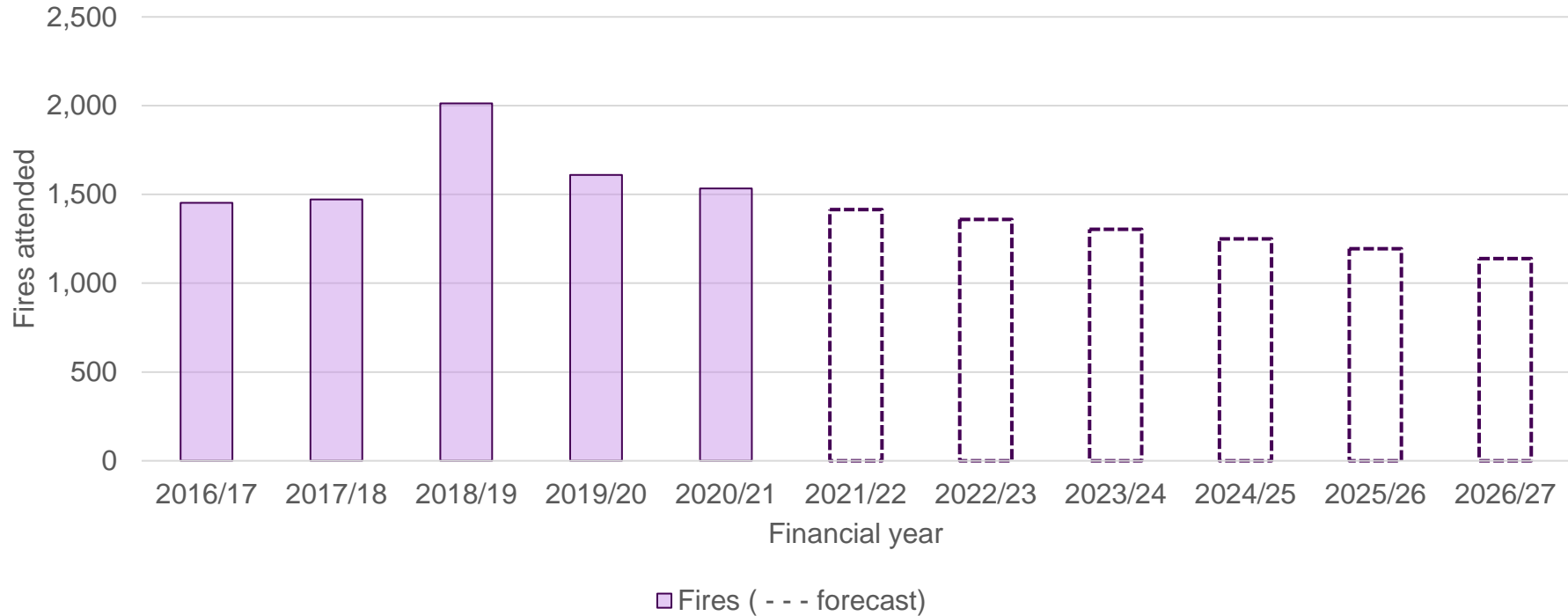
### Incident statistics

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 the number of secondary fires nationally and in our Service area, and our forecast suggests that this is likely to continue. *Note – wildfires are going to increase significantly but secondary fires overall are going to go down?*



## Secondary fires 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?

While there is no direct life-risk associated with this category of incident<sup>21</sup> they can tie up resources, preventing them from attending other incidents that may have a greater life 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>21</sup> If an injury is reported the fire will be reported as a primary incident.

## **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, it has a duty to respond to fires in vessels alongside (next to land). 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 boats to large ships, 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 through metal bulkheads and air handling machinery.

## **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.

- They divert the fire service away from attending real emergencies.
- Responding to them creates unnecessary risk to fire crews and members of the public when fire engines are driven under blue lights.
- Occupants of buildings that have frequent false alarms get used to them and may delay their response, or worse, not respond at all to a real emergency.
- They 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.

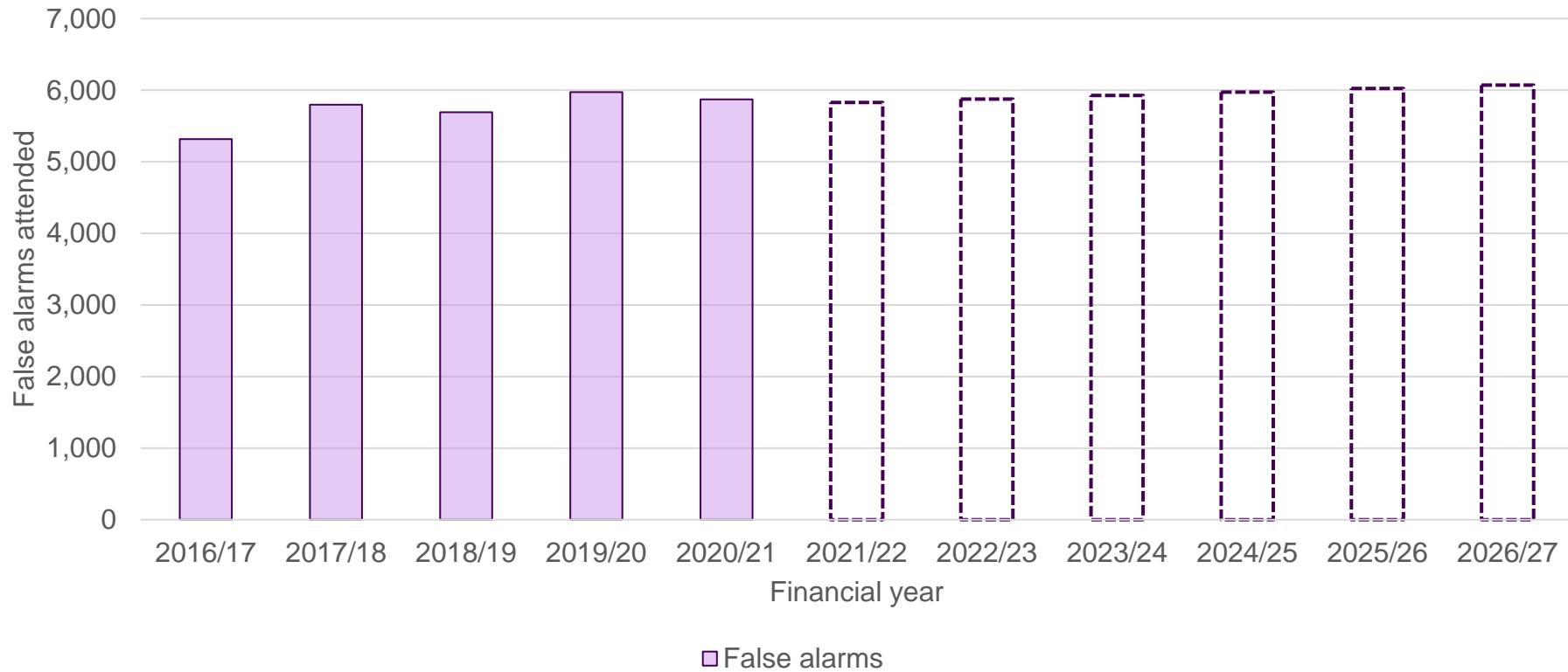
### **Incident statistics**

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

The 2019/20 financial year saw false alarms account for 38% of the incidents we attended. The greatest proportion of false alarms are automatic fire alarm actuations, accounting for around 70% of false alarm incidents we attend.

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

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



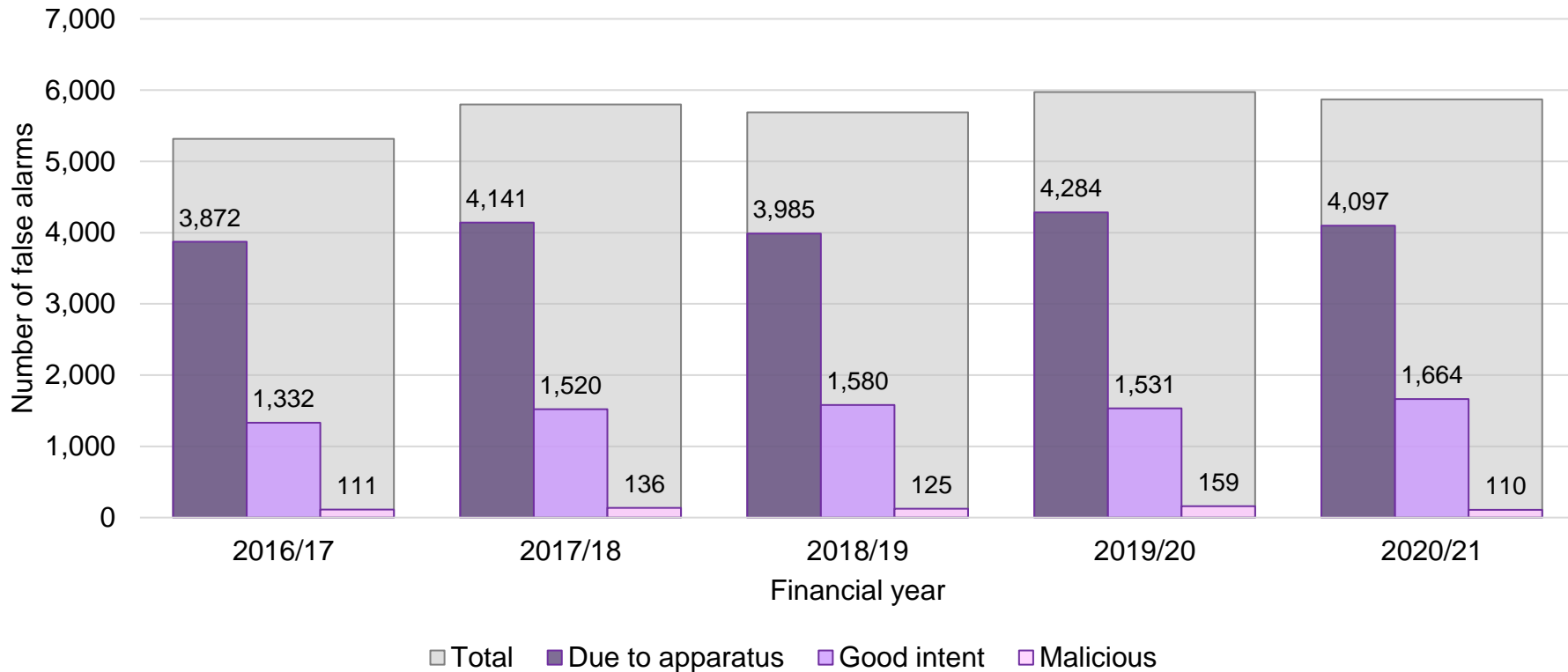
There are three high-level categories of false alarms.

**Due to apparatus** calls are where a fire alarm or firefighting equipment operated in error (including accidentally by someone).

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

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

### Number of false alarms attended, by category



### Who or what is affected?

While these incidents do not carry a significant risk in themselves, the impact of our resources responding to 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 complacent, and may be at risk if there were to be a real fire.

## Transport

### Road traffic collisions (RTCs)

#### 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. 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. Road traffic collisions remain a key priority for us.

In the five years from January 2015 to December 2019 there were 17,013 road traffic collisions<sup>22</sup> across Devon and Somerset. In 3,189 of these at least one person died or was seriously injured.

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

#### Incident statistics

We attend road traffic collisions 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 attended 5,555 road traffic collisions. These incidents resulted in 2,835 people being killed or seriously injured<sup>23</sup>.

Like the national data, we have seen a downward trend over this period and our forecasts suggest that this is likely to continue over the coming years.

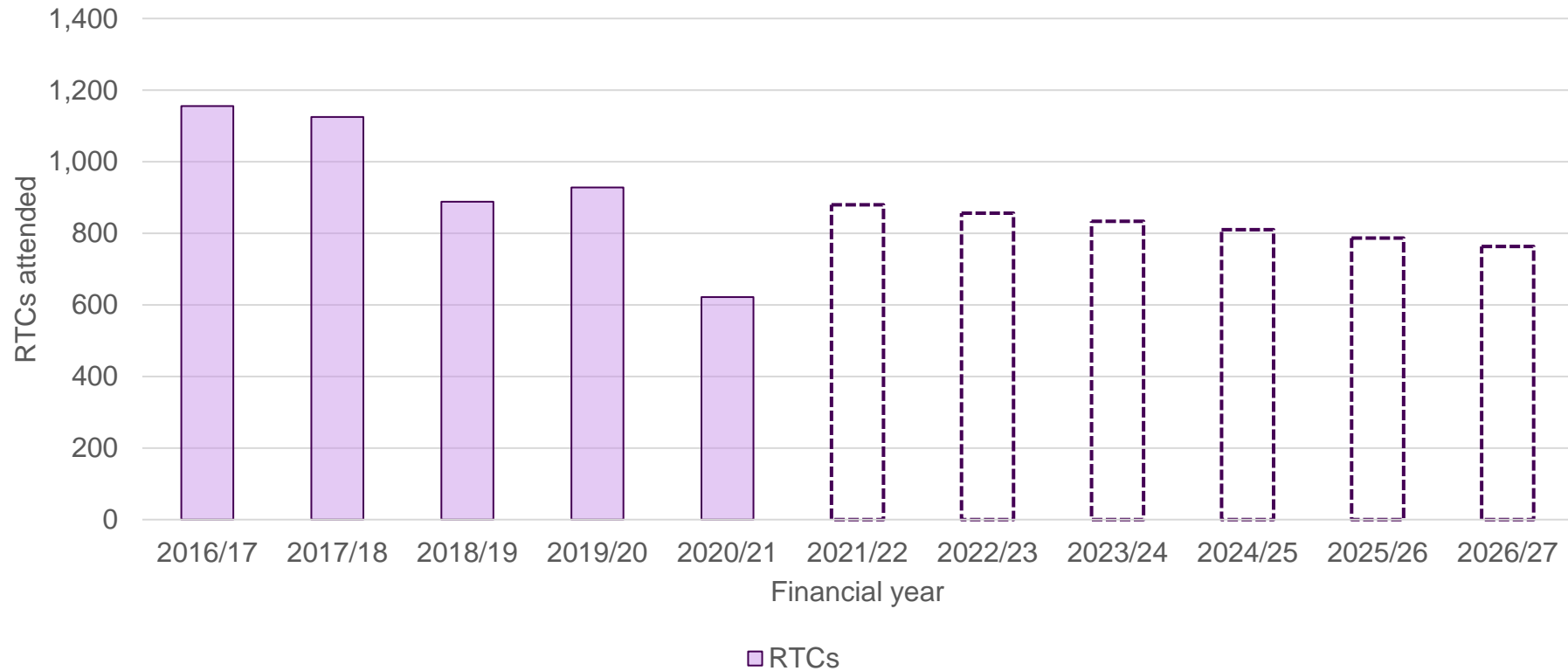
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<sup>22</sup> From Police STATS 19 data.

<sup>23</sup> Based on our understanding at the time of the incident.

## 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.

Men between the ages of 16 and 30 are the highest risk group<sup>24</sup>.

<sup>24</sup> Police STATS 19 dataset.

## **Specialist rescues**

### **Rescues from water**

#### **Why is it a risk?**

Specialist rescues are not a statutory responsibility 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 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 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 we 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 water rescue incidents over the coming years.

Based on figures from the National Water Safety Forum's WAID database, during 2020 there were 176 accidental drownings in England, 10 of them in our Service area. <sup>25</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 or harbours.

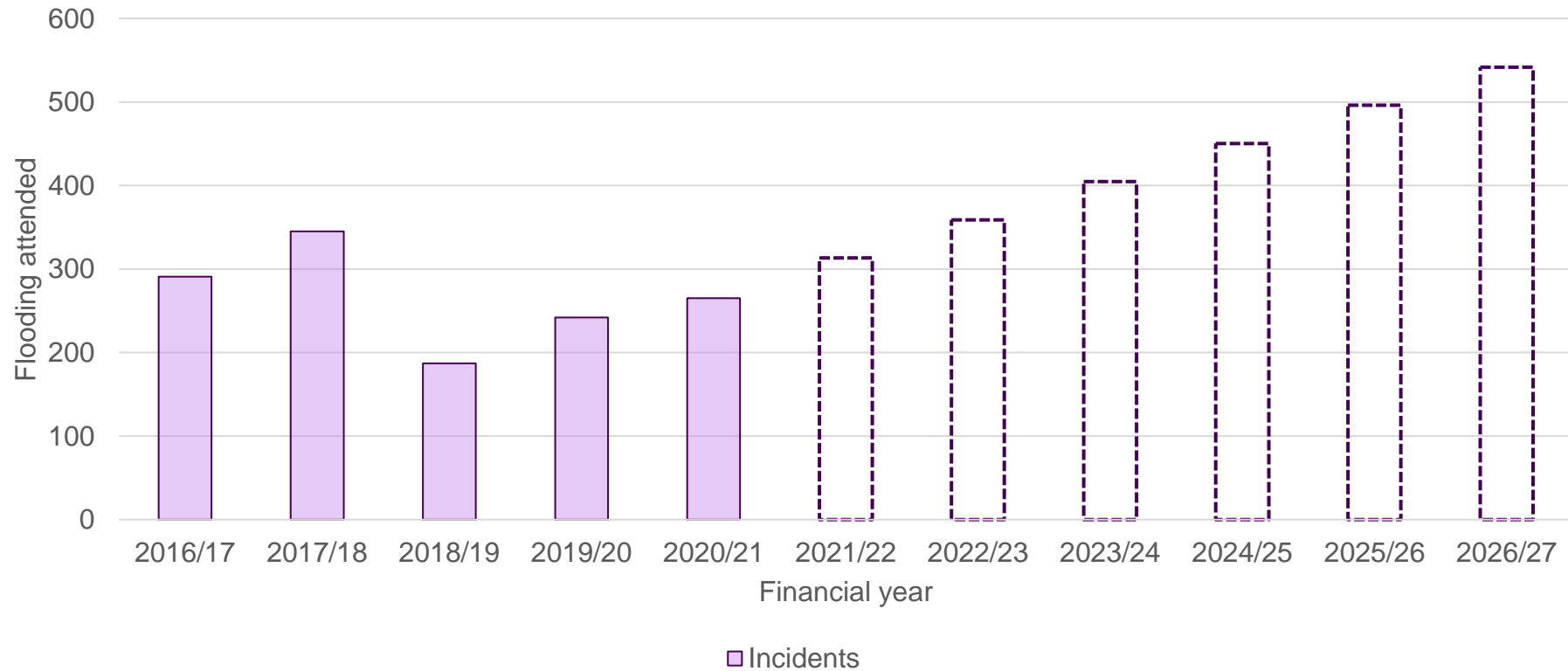
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<sup>25</sup> 2020 Annual Fatal Incident Report, [Annual reports and data - National Water Safety Forum](#)



## 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. The presence of alcohol or drugs was reported in 50% of accidental drowning victims aged 25-34 years.

## 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. This includes 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

Each year we carry out around 50 rescues from height and 80 animal rescues from height or depth.

## Animal rescues

### Why is this a risk?

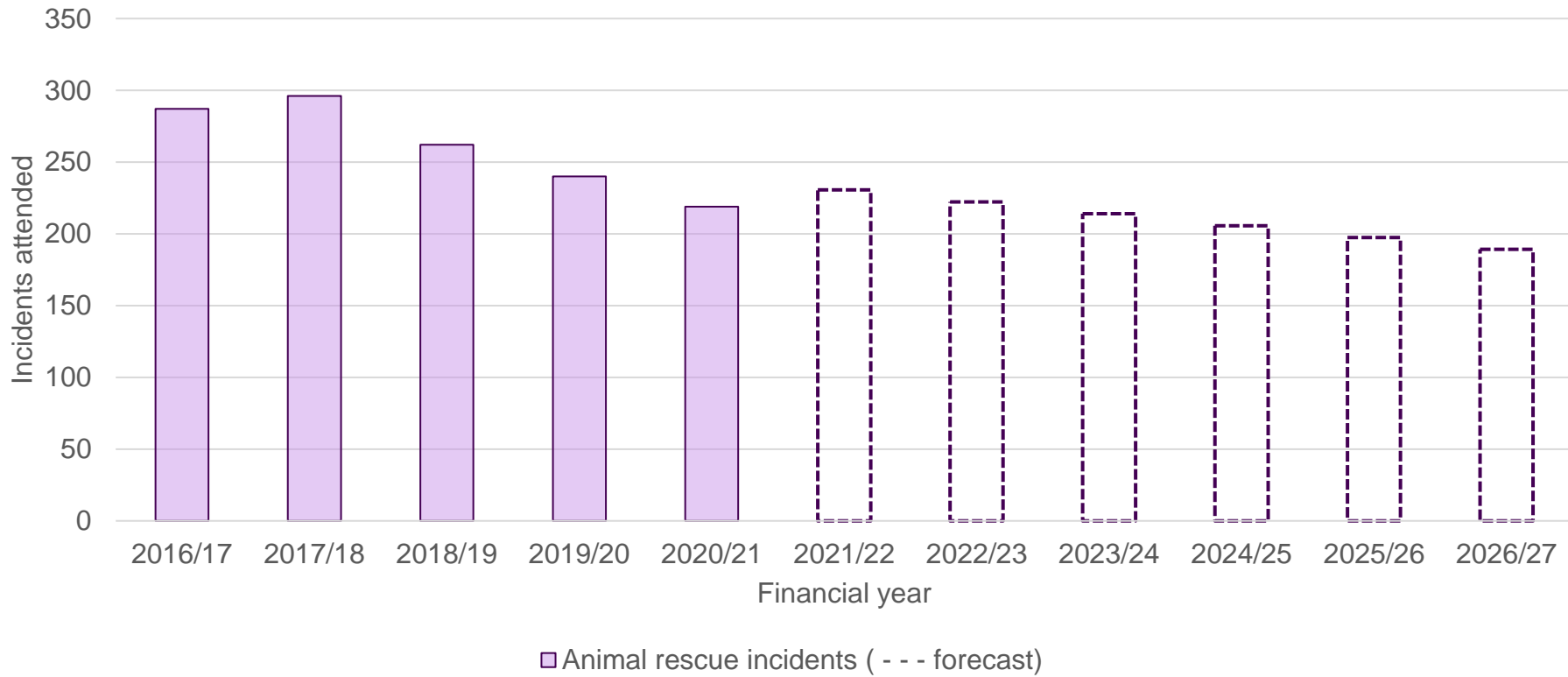
Our Service area is largely rural, and we are often called upon to help rescue animals including wildlife, pets and livestock. While we do not have a duty to respond to these incidents, we do attend if there is likely to be a risk to a member of the public if they attempt to rescue the animal themselves 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 in our Service area. While there was a slight upward trend nationally during this period, we saw a 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



### Who or what is at risk?

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

## **Hazardous materials**

### **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.

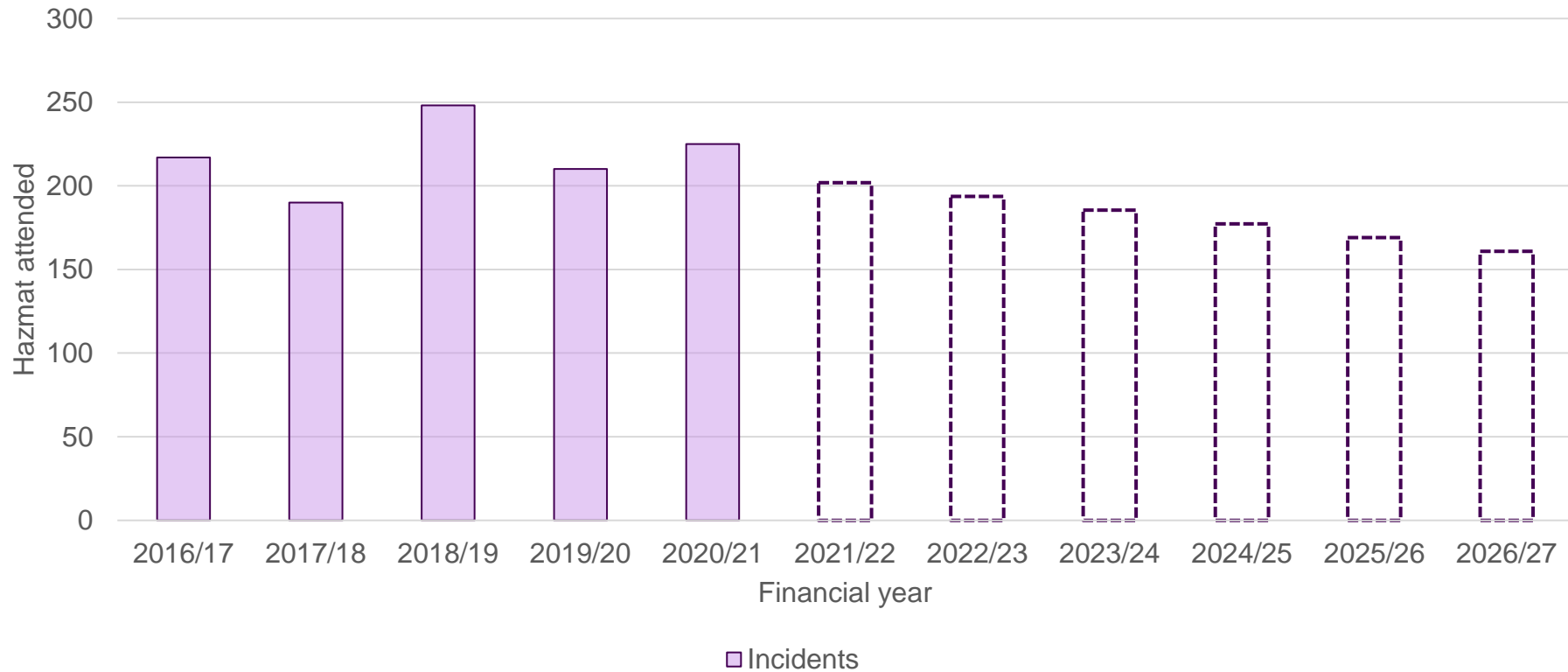
#### **Incident statistics**

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 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 also 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 it often takes a considerable time to bring them under control.

## Environment and climate change

### Extreme weather events, flooding and wildfires

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

We need to consider the likelihood of severe weather events when designing 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 expected. With significant areas of wide, low-lying river valleys across Devon and Somerset, the risk of flooding (including flash flooding) is likely to increase.

Over the last decade we have 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 several communities.

These types of incidents affect:

- 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.

## National risks

### 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 services increases as a result of the crisis or disaster, at the same time we can be hit with the same pressures as other organisations on the ability to maintain services over 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 includes:

- 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 fire and rescue services to respond to a range of incidents as well as 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
- enhanced logistical support.



## Health and wellbeing

### 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 service 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 there may be a medical issue or risk to life.

The number of people aged 90 or over is expected to double in size by 2043<sup>26</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 attended 14,483 medical incidents. Between April 2017 and March 2020, we 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.

Mental health problems are common across all sectors of society. NHS England estimates that in any one year approximately one in four British adults experience at least one diagnosable mental health disorder<sup>27</sup>. 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.

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<sup>26</sup> ONS mid-year population estimates.

<sup>27</sup> [NHS England » Adult and older adult mental health.](#)

## **Data sources**

National Fire Statistics

[Themes in accidental fire deaths 2013-2017 \(dsfire.gov.uk\)](https://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://www.gov.uk)

[assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/1021262/fire-statistics-data-tables-fire0304-300921.xlsx](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 (ONS):

- 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