



**WARWICKSHIRE**  
FIRE & RESCUE SERVICE

Warwickshire  
Fire and Rescue  
Service

**Risk Profile**

**2016**





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## I. Executive Summary

The Warwickshire Risk Profile 2016 provides an in-depth research and analysis of incidents attended by Warwickshire Fire and Rescue Service (WFRS) over the period of January 2013 to December 2015. It aims to identify emerging risks/issues and to inform the development of the WFRS Integrated Risk Management Plan (IRMP). The profile ends with a Future Risks and Opportunities section which follows the PESTELO framework and highlights the various challenges, threats and opportunities presented by the environment in which WFRS operates.

Nationally, levels of incidents attended by the fire and rescue service are lower than a decade ago, and this is the case within Warwickshire. However, there has been an upturn across all main incident types in the last 3 years.

WFRS is performing well on a number of key performance measures when compared with the other English fire and rescue services. There are a small number of measures where performance is not as strong but in these cases WFRS still performs around the national average.

Generally figures for fires within Warwickshire are relatively low; therefore small changes from one year to the next can in some cases produce disproportionately high percentage increases/decreases. It is therefore useful to consider performance figures from the 3 year reporting period of this Risk Profile against the longer term trend data provided within Section II.C.



## II. Introduction

The Warwickshire Risk Profile provides the evidence base for the Integrated Risk Management Plan (IRMP); a statutory requirement for all Fire and Rescue Services. A new version of the IRMP is currently being developed and is scheduled to be published in 2017. The Risk Profile also aims to support the decision making of the Brigade Command Team and to form the plans for managing the risks across Warwickshire.

This report offers insight into current risk within Warwickshire. Analysing data and consulting with officers and practitioners, the authors identify key trends, suggesting proposed actions where appropriate. Exploring both short and long term trends enables a more appropriate understanding of risk and targeting of resources. Doing so, the Service is able to respond to both opportunities and challenges effectively and proactively. The conclusions drawn will also assist in planning and policy setting at an operational and strategic level.

This document sits within a wider context of literature, and should be read in conjunction with the following documents:

- Community Safety Partnership Strategic Assessments as well as Partnership Plans produced by the Community Safety Partnerships, enabling greater cohesion with ongoing community safety work carried out by partner agencies;
- Warwickshire's Joint Strategic Needs Assessment (JSNA) which identifies the health and well-being needs of Warwickshire's communities, reviewed in early 2015. As WFRS plays an integral role in achieving overall community health and safety outcomes, the priority needs of Warwickshire's residents as identified in the JSNA have been considered in the writing of this report;
- Quality of Life Report, 2015. Written by Warwickshire Observatory, analysts analysed incident data between January-December 2015, complemented by consultation with and commentary from Service Managers and Officers.

### A- Warwickshire County Overview

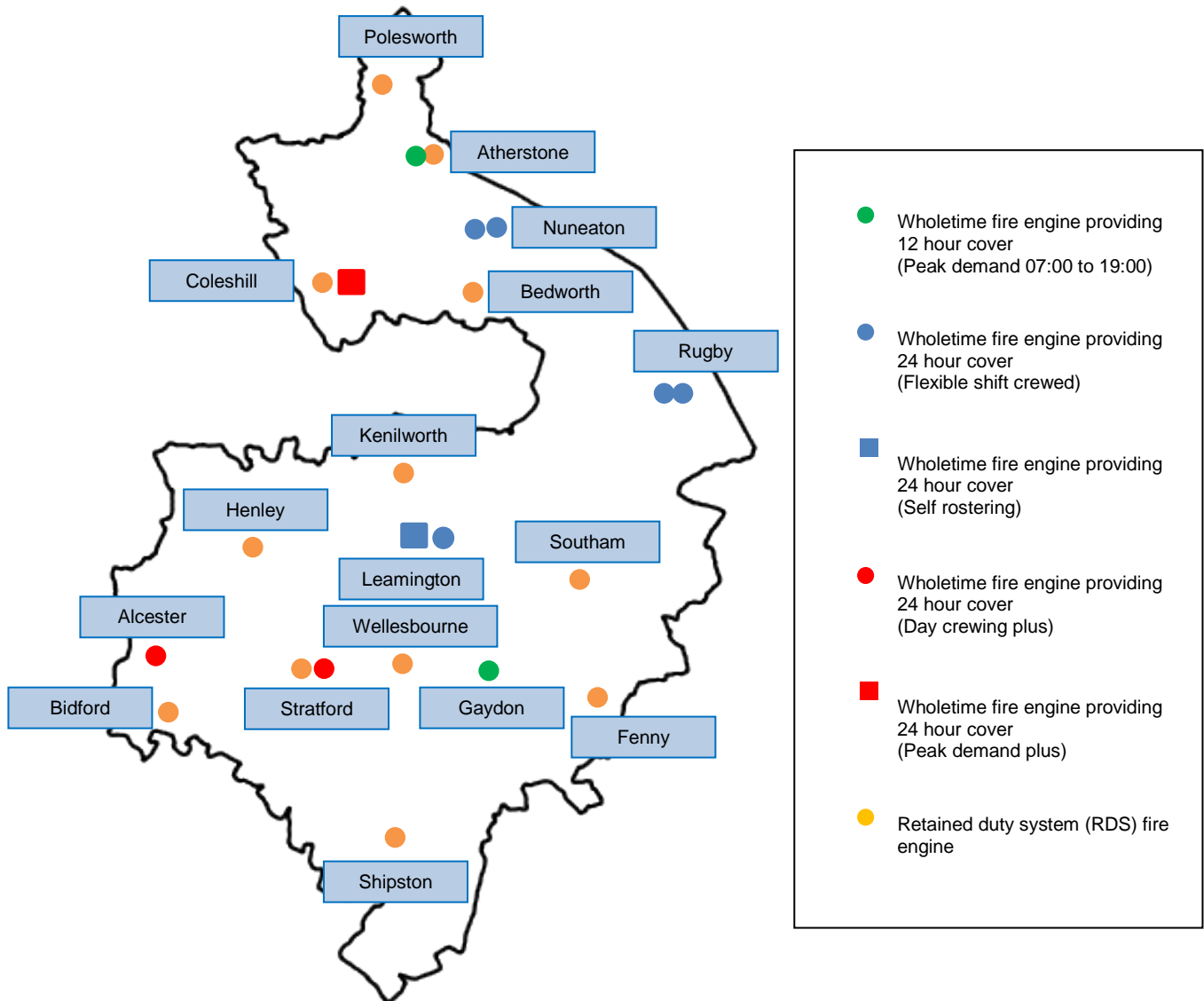
Based in the West Midlands, Warwickshire is located to the south east of the Birmingham and Wolverhampton metropolitan area. Strategically located, the County benefits from well-established national transport links to major cities in the West Midlands as well as to London and the South-East. The County has an extensive road network spanning 4,130 kilometres, including 140km of motorways<sup>1</sup>.

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<sup>1</sup> Department for transport statistics, 2013

At 2015, Warwickshire's population stood at an estimated 554,002 people, an average of 278 per km<sup>2</sup>. The majority of Warwickshire residents live in the major towns, with a third of the County classed as rural. Warwick District consistently reports the highest population level, with North Warwickshire reporting the lowest. With regards to population density, Nuneaton and Bedworth is the most densely populated Borough, with roughly 1,600 persons inhabiting each square kilometre, significantly higher than the national average of 413 people per km<sup>2</sup> and Warwickshire average of 278.

Stations are organised into 6 clusters and are positioned strategically within each District and Borough to ensure an effective response of 10 minutes to 75% of incidents where life is at risk. The adjacent map and accompanying key illustrates the distribution of stations at September 2016.



<sup>2</sup> Mid-2013 Population Estimates, Office of National Statistics

## **B – Our Purpose, Vision and Priorities**

The core purpose of Warwickshire Fire and Rescue Service (WFRS) is “protecting the community and making Warwickshire a safer place to live”. The Service works to ensure the safety and wellbeing of the residents of Warwickshire through prevention, protection and response activity.

As the overall number of fires has decreased steadily over the past decade this is, in part, attributable to the WFRS approach to protecting the community, including more and more preventative work alongside delivering its other statutory duties. The WFRS is part of a wider network of agencies that provides resilience in the face of a multitude of issues, such as severe weather conditions. WFRS also works with partners to tackle anti-social behaviour and to reach the most vulnerable and hard to reach groups of the community.

WFRS is a part of Warwickshire County Council and works to support the organisation’s priority outcomes, listed below.

### **One Organisation Outcomes**

- Our communities and individuals are safe and protected from harm and are able to remain independent for longer;
- Resources and Services are targeted effectively whether delivered by the local authority, commissioned or in partnership;
- Our communities and individuals are encouraged to help themselves feel safe and secure;
- The Health and Wellbeing of all in Warwickshire is protected;
- High quality needs based public services are deployed effectively and efficiently, no matter how they are provided.

Within this, WFRS developed a Business Unit Outcome Framework for 2014-18:

### **Strategic Priority Outcomes for Warwickshire Fire and Rescue**

#### **The Public Are Kept Safe**

- We understand and proactively manage the risk in our county;
- We help our businesses and communities, particularly the most vulnerable, to be safe;
- Effective enforcement of fire safety law in the workplace is delivered.
- An effective response is provided to fires and other emergencies;
- Low levels of deaths and injuries caused by fire and on the roads are minimised.

#### **Firefighters Are Kept Safe**

- A good health and safety culture is promoted;
- The right equipment, vehicles and information to do the job are provided;
- Our staff feel supported, valued and engaged;
- We are operationally assertive, confident and safe;
- We are prepared for major threats and emergencies.

#### **We Do Our Very Best**

- We are organisationally efficient and constantly seek improvements;
- Our customers are satisfied with the service they receive;
- Our staff are recognised as our biggest asset.

## C - Overview of Incidents

Incidents attended by WFRS can be categorised into 5 main types: **Primary Fires, Road Traffic Collisions, Secondary Fires, False Alarms and Special Services**. The following table briefly defines each in turn.

Fire Type	Description
<b>Primary Fires</b>	Includes home fires, business (non-domestic) fires, and vehicle fires. Involves property or vehicles or where casualties or rescues have occurred. They also include incidents where five or more fire engines are in attendance.
<b>Secondary Fires</b>	Secondary Fires (also called small fires) on the other hand do not involve life risk and are mostly outdoor fires, such as refuse and grassland fires. Fires in derelict properties and vehicles are also counted as secondary/small fires, in addition to chimney fires which are confined to the chimney structure of a building.
<b>False Alarms</b>	False alarms are incidents where WFRS are called to a location and discover on arrival that there is no emergency situation requiring their services.
<b>Special Services</b>	Comprises an assortment of non-fire incidents, including events such as water rescue, animal rescue, chemical leaks, persons locked in/out and persons trapped in machinery etc.
<b>Road Traffic Collisions</b>	A traffic collision, also known as a motor vehicle collision (MVC) among others, occurs when a vehicle collides with another vehicle, pedestrian, animal, road debris, or other stationary obstruction, such as a tree or utility pole.

### Long Term Trends

Nationally, levels of attended incidents by FRS are lower than a decade ago. Warwickshire echoes this trend, with 60% fewer incidents attended between January and December 2015 than January-December 2005. This reduction was reported across all fire types, illustrated in the following table.

#### Long term trend: 10 year percentage change in incidents attended

Incident Type	Jan - Dec 2005	Jan - Dec 2015	Percentage Change
<b>Primary Fires</b>	1,408	611	<b>-57%</b>
<b>Road Traffic Collisions</b>	652	301	<b>-54%</b>
<b>Secondary Fires</b>	1,454	735	<b>-49%</b>
<b>False Alarms</b>	3,681	1,318	<b>-64%</b>
<b>Special Services</b>	848	259	<b>-69%</b>
<b>Total Incidents</b>	<b>8,043</b>	<b>3,224</b>	<b>-60%</b>



Consistent reductions in attended incidents are often attributed to changes in lifestyle choices, fire service policies and technological advancement. Accordingly, changing lifestyle habits and safer electrical appliances are often cited as explanatory factors for the reduction of accidental home fires. Further, improvements and technological advancements in the motor-car sector are often attributed to a reduction in deaths and serious injuries in Road Traffic Collisions (RTCs), despite an increase in road traffic. However, WFRS attended more RTCs in 2015 than in the previous two years. This can be attributed to changes to local mobilisation policies that widened the range of RTCs that WFRS responded to.

National legislative changes have also impacted on the Fire Service, notably the 2005 Regulatory Reform (Fire Safety) Order for FRS inspections on commercial buildings, ensuring adherence to fire safety regulations.

Finally, moves towards a preventative, targeted service model combined with policy changes has also reduced the levels of attended incidents.

### Short Term Trends

Analysing reported incidents between 2013 and 2015 (the focus of this document,) short term trends are evident. The table below summarises the percentage increase across all incident types over the period under review, these increases are further analysed within the document.

#### Short term trend: 3 year percentage change in incidents attended

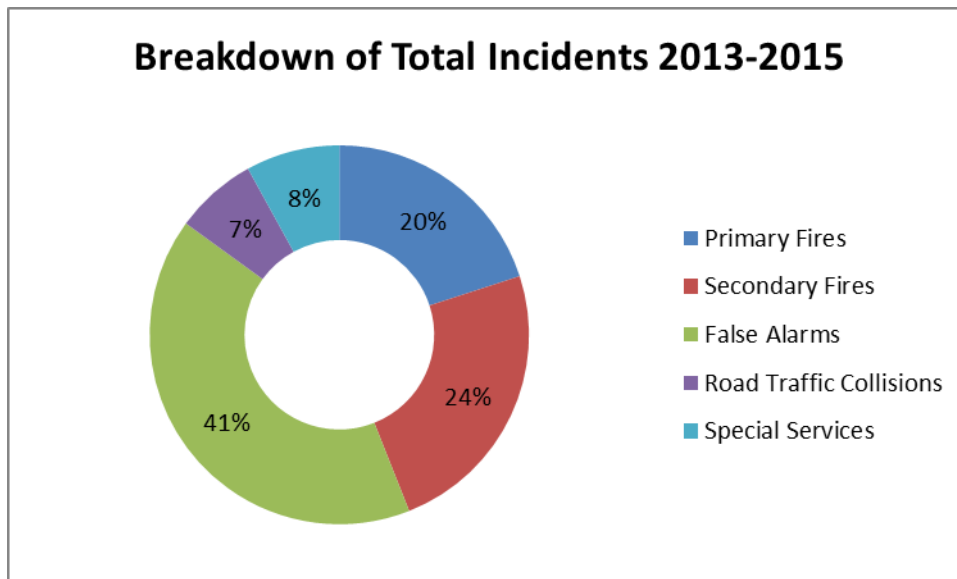
Incident Type	Jan - Dec 2013	Jan - Dec 2015	Percentage Change
Primary Fires	573	611	+6.6%
Road Traffic Collisions	135	301	+122.9%
Secondary Fires	655	735	+12.2%
False Alarms	1,088	1,318	+21.1%
Special Services	184	259	+40.7%
<b>Total Incidents</b>	<b>2,635</b>	<b>3,224</b>	<b>+22.4%</b>

The chart overleaf illustrates total incidents over the three-year period, divided by main incident type.

Echoing national trends, false alarms continue to constitute the largest proportion of incidents, with 41% of total incidents comprising this category. Further, 'Special Services' constitutes the smallest proportion of incidents.

The ethos of WFRS continues to be one of improvement, illustrated in the long term by the 60% reduction in incident levels over the last decade. The increases within individual incident types within the last three years are explored throughout this document.





## **Benchmarking**

In an effort to understand the WFRS activity levels in relation to other Services', identify potential gaps in performance and to improve the service further, WFRS use published information from the YouGov.uk website and CIPFA. An annual benchmarking exercise is undertaken to compare its performance against the other 44 English Fire and Rescue Services. For 2015/16 the comparison was made for a number of the main performance metrics, as described below.

It is important to note that incident data provided through the national incident recording system is no longer audited and therefore exact like-for-like recording of incidents may not be possible.

### **Total Incidents**

This is measured as the total number of incidents attended by WFRS, including all fires, special services, false alarms and RTC's, per 10,000 population. In this area, Warwickshire ranked **1<sup>st</sup>** out of the 45 English Fire and Rescue Services. This corresponds to a rate of **60.90** as compared to the national average of **95.92**.

### **Property and Vehicle Fires**

Warwickshire was ranked **32<sup>nd</sup>** for 'Property and Vehicle Fires per 10,000 population' with a rate of **11.55**. The best performer of the 45 Services had a rate of 9.95, the national average rate was 13.77.

### **Accidental Fires in the Home**

These fires are measured by the number of such fires per 10,000 homes. Warwickshire achieved **2<sup>nd</sup> place** in the ranking of the 45 English Fire Services nationally. This corresponded to a rate of **6.21** as compared to the national average of **11.22**.

### **Deliberate Fires**

For 'Deliberate Fires per 10,000 population' for the 45 Services being compared the best performance rate was 4.39. Warwickshire came **29th** with a rate of **12.15**, better than the national average of **13.78**.

### **Secondary Fires**

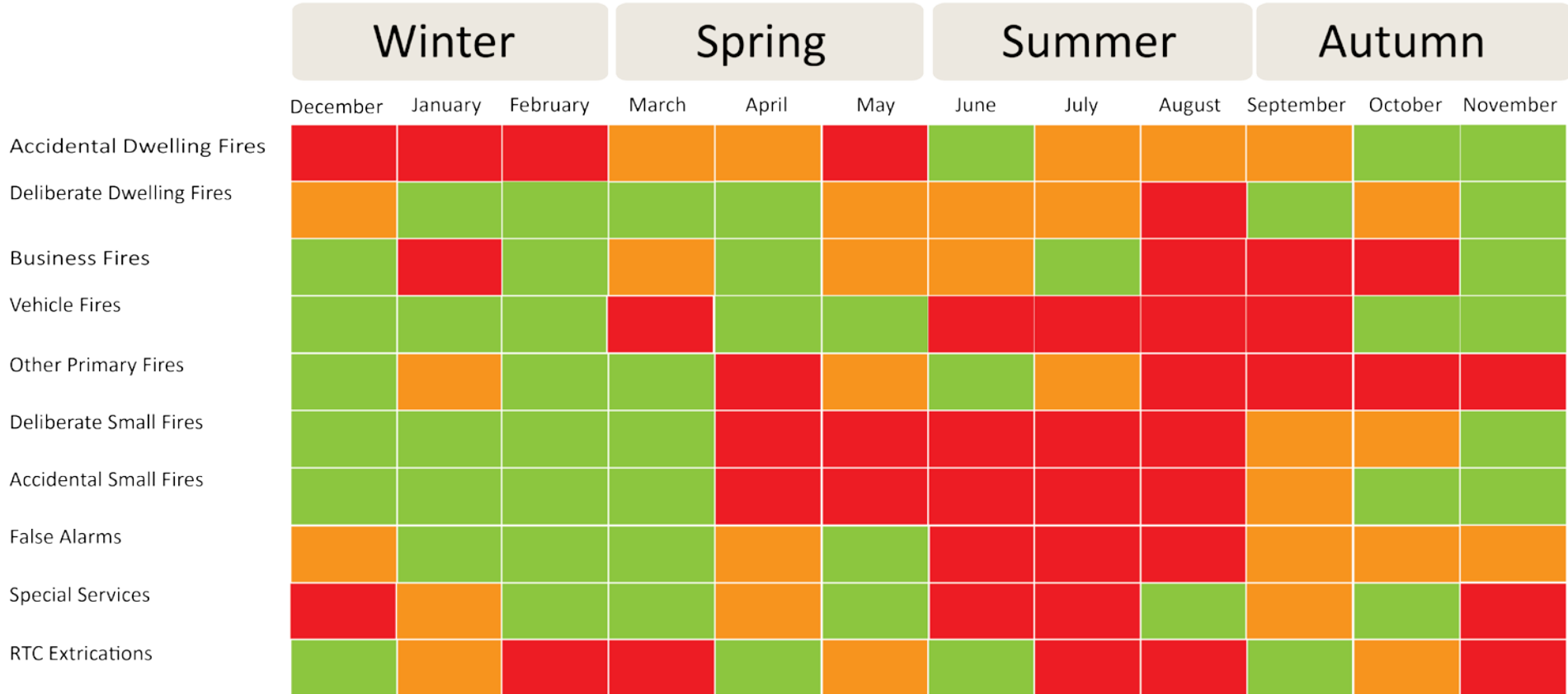
For fires that do not involve property, vehicles or life risk and are mostly outdoor fires, such as refuse and grassland fires per 10,000 population, Warwickshire was ranked **26th** when compared with the other 44 Fire Services across England. The best performer rate was 2.21, Warwickshire was **15.67** slightly better than the national average of **15.83**.

### **Road Traffic Collisions**

For the number of 'Road Traffic Collisions per 10,000 Population,' of the 45 English Services compared the best performer had a rate of 02.53. Warwickshire came **25<sup>th</sup>** with **5.78**, slightly lower than the national average of **5.91**.

**As such, Warwickshire is performing well on a number of key performance measures when compared with the English Fire Services. There are a small number of measures where performance is not as strong but still performs around the national average.**

## Warwickshire FRS SEASONALITY CHART



Seasonality is a common theme within analysis of FRS incidents, with weather and other seasonal attributes affecting the likelihood and severity of incidents, from Deliberate Fire Setting to special services. The graphic above illustrates the seasonal variation across different fire and service types.

**Key**

- 5% below the average
- within 5% above or below the average
- 5% above the average

### III. Primary Fires

Primary fires are fires that involve property or vehicles or where casualties or rescues have occurred, they also include incidents where five or more fire engines are in attendance. This category of fires includes **home fires, business (non-domestic) fires, vehicle fires, and other fires**. Both deliberate and accidental primary fires are discussed within this section, and deliberate fires are further discussed in the 'Deliberate Fire Setting' section.

The table below is a summary of all primary fire incidents in Warwickshire for the years of 2013 to 2015 – both accidental and deliberate. Despite the long term downward trend, during this period there has been an **increase of 6.6% in primary fires**.

The greatest increase was seen in the 'Deliberate Other Fires' category of 9 incidents (43%) from 2013 to 2015. Only one sub-group experienced a reduction in the number of incidents which was 'Accidental Vehicle Fires' with an increase of one (1%).

Within the Primary Fires category, 'Accidental Home Fires' have the most risk of a fatality occurring, and 'Accidental Vehicle Fires' the most common type of incident. Therefore the prevention activities are predominantly focussed on these areas.

Incident Type		Jan - Dec 2015	Jan - Dec 2014	Jan - Dec 2013	Share of Total
Home Fires	Accidental Home Fires	158	160	150	26.9%
	Deliberate Home Fires	17	19	15	2.9%
Business Fires	Accidental Business Fires	73	65	67	11.8%
	Deliberate Business Fires	17	14	17	2.8%
Vehicle Fires	Accidental Vehicle Fires	171	178	168	29.8%
	Deliberate Vehicle Fires	107	84	79	15.5%
Other Fires	Accidental Other Fires	38	29	32	5.7%
	Deliberate Other Fires	30	24	21	4.3%
<b>Warwickshire Total</b>		<b>611</b>	<b>611</b>	<b>573</b>	100.0%

Overall the number of incidents has declined significantly over the longer trend and the numbers are low. It is worth noting that variations from one year to another can cause high percentage fluctuations.

## A. Home Fires (Domestic)

Home fires include both accidental and deliberate (deliberate fire setting) incidents and cover various types of domestic residences: houses, flats, bungalows, care homes as well as caravans and houseboats used as permanent dwellings. Home fires are the first sub-category of primary fires.

### Key Trends

- Over the 3 year period spanning January, 2013 to December 2015, fires in the home have **increased by 6% (10 incidents)**
- **Accidental Home Fires (AHFs)** have **increased by 5%** (8 incidents) and **Deliberate Home Fires** has also **increased by 13%** (2 incidents)
- The national rate of **accidental fires in the home** for England per 100,000 population in 2015/16 is **51.6**, Warwickshire compare favourably at a rate of **26.7**.
- The national rate of **deliberate fires in the home** for England per 100,000 population in 2015/16 is **5.5**, Warwickshire compare favourably at a rate of **3.46**.

### Actions

- *To maintain Homes in Multiple Occupancy (HMOs) as a focus of WFRS operations*
- *To support private HMO landlords in installing smoke and carbon monoxide detectors as per recent legislation*
- *To continue offering targeted Home Fire Safety Checks to groups most at risk from fire and working with partner agencies to reach the most vulnerable*
- *To tailor preventative measures to the demographic profile of those most at risk to fire*
- *To continue working with partner agencies to reduce risks in the homes of the elderly and contribute to Warwickshire's wider health agenda of supporting the elderly to live independently for longer*

### Accidental Home Fires (AHFs)

AHFs are of great concern to Fire and Rescue Services as, nationally, they are responsible for the highest number of fire fatalities. This section details the occurrence of AHFs in Warwickshire over the examined period.

Station Cluster	Jan - Dec 2015	Jan - Dec 2014	Jan - Dec 2013	Share of Total
Alcester	11	8	10	6.2%
North Warwickshire	13	15	11	8.3%
Nuneaton & Bedworth	55	49	51	33.1%
Rugby	31	15	26	15.4%
Stratford	17	27	20	13.7%
Warwick	31	46	32	23.3%
Warwickshire Total	158	160	150	100.0%

#### Key Trends

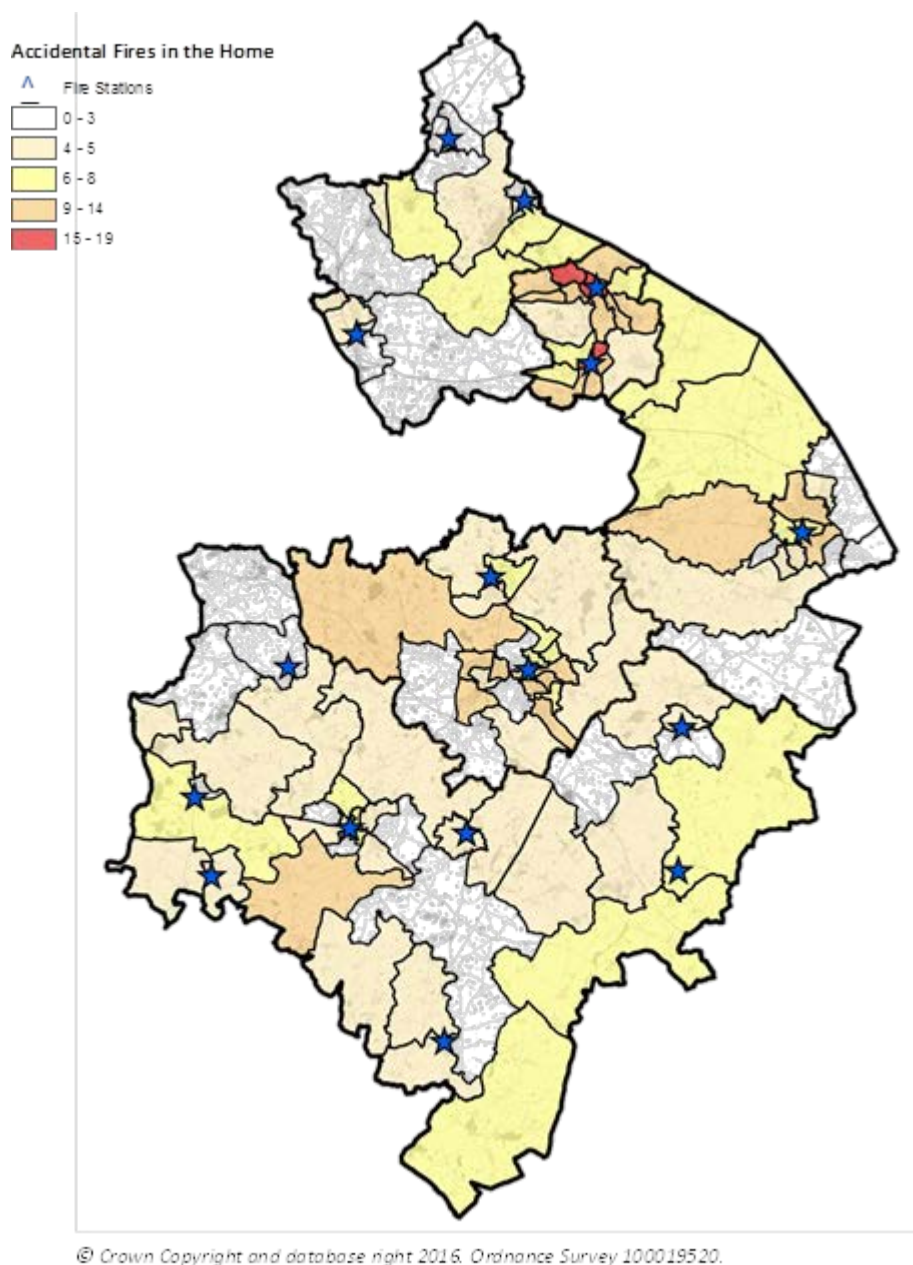
- In the three year period in question, the **highest** share of AHFs attended by WFRS was in **Nuneaton & Bedworth Borough** (33%) and was followed by Warwick District where 109 incidents took place accounting for 23% of all AHFs in Warwickshire.
- Overall, **Nuneaton and Bedworth saw the largest number of incidents** (155)
- Only **two station clusters experienced reductions**, Stratford and Warwick.

#### Causes of Incidents

- 60% of all AHFs during the previous three year period (283 incidents) started in the kitchen followed by 17% in the living room (78 incidents).
- With the kitchen incidents, 28% (131 incidents) were cooker including oven related, followed by 11% (31 incidents) caused by wiring, cabling and plugs.
- Of the living room incidents, 19% (15 incidents) were due to candles followed by 17% (11 incidents) caused by heating/fires.

The map overleaf illustrates the level of AHFs in each ward in the County. The stars illustrate where the fire stations are based. The top 5 wards within the County in terms of frequency of Accidental Home Fires are:

1. Camp Hill (Nuneaton and Bedworth Borough)
2. Abbey (Nuneaton and Bedworth Borough)
3. Bede (Nuneaton and Bedworth Borough)
4. Eastlands (Rugby Borough)
5. Leam (Warwick District)



It is important to note that in terms of Warwickshire's performance relative to Great Britain as a whole, it is in the lowest category of AHF's per 1 million people, (i.e. between zero and 350 AHFs per million) along with just 4 other counties across England, Scotland and Wales.

### Homes in Multi-Occupancy and High Rise Homes

Two types of residences that are of particular interest to WFRS are Homes in Multiple Occupancy (HMO) and high-rise homes. HMOs are properties shared by multiple tenants that are not family members and are usually rented. Over the 3 year period from January 2012 to December 2015, there was a 63% decrease in AHFs in HMOs from 38 in 2012 to 14 in 2015.

There is a current predominance for office conversions to flats within towns throughout the county. This leads to more densely populated towns, with the HMO's providing the highest densities.



Building control submissions for buildings of HMO type continue apace. These properties are subject to a high level of fire protection being instigated in the properties. Although there is a large increase in this type of premise, the controls are far more stringent than pre regulation.

High-rise homes are defined by WFRS as residential buildings with 4 or more stories. Over the 3 year period from January 2012 to December 2014, the following short-term trends were seen:

- In 2014 a total of 10 AHFs occurred in high-rise buildings; 7 in Warwick district and 1 each in Stratford, North Warwickshire and Nuneaton and Bedworth
- In 2013 there were a total of 3 incidents; 2 of which were in Warwick district and the third in Nuneaton and Bedworth
- In 2012 a total of 8 incidents occurred; 5 in Warwick, 2 in North Warwickshire and 1 in Rugby
- Overall, in the 3 year period there was a 20% increase in AHF's in high-rise homes.

Many high-rise buildings (particularly social housing blocks) were built between 1950 and 1970 and were thus built to lower fire safety standards. For example, current building regulations require buildings over 18m high to have certain firefighting measures installed (e.g. firefighting lifts) but retrospective application of such measures is not required; meaning that some older buildings are lacking in these firefighting provisions.

Fires in high-rise buildings present firefighters with a number of challenges. To begin with, it may be hard to establish from the ground where the exact location of a fire is in a high-rise building. Additionally, the way in which fire and smoke spread during a fire in a high-rise is more difficult to predict than in other building types due to a number of factors such as for example wind speed at higher floors potentially being faster. As such, high-rise buildings pose various risks to firefighters and will remain a priority for WFRS.

There are no new high rise properties being built currently within Warwickshire.

**Emerging Issues: AHFs continue to be the leading cause of fire fatalities in the UK, with kitchen fires being the main cause of AHF incidents.**

## **Preventative Measures**

Prevention activity forms a significant part of WFRSs' risk management strategy and is crucial to driving down incident levels and saving lives. This section describes two elements of prevention of home fires: home fire safety checks and smoke alarms.

### **Home Fire Safety Checks**

WFRS continuously educate residents on the risk of house fires, how to reduce them and keep their families safe. The well-established Home Fire Safety Check (HFSC) does this and more, and is a great way of raising awareness amongst the public and their families and more importantly protecting the most vulnerable within our communities.



WFRS hope to launch the new safe and well check before the end of the year and that Warwickshire residents will soon start benefiting from the enhanced service.

### **Smoke Alarm Ownership**

The time in between when a fire in the home starts and when it is discovered by the home occupants has a vital bearing on the outcome of the fire. Shorter discovery times lead to a quicker response on part of the occupants and the Fire and Rescue Service which ultimately leads to a lower likelihood of the fire resulting in any fatalities. Smoke alarms play a crucial role in shortening the discovery time.

The proportion of dwellings with a smoke alarm increased greatly in the 1990s and has continued to increase since then. This is considered to be one of a number of causes of the reduction in fatalities that occurred in the 1990s and 2000s.

Fires where a smoke alarm was not present accounted for 30 per cent of all dwelling fires and 35 per cent of all dwelling fire fatalities in 2014/15. This is in the context of 12 per cent of dwellings not having a working smoke alarm in 2013/14. Fires where a smoke alarm was present but either did not operate or did not raise the alarm, accounted for 31 per cent of all dwelling fires and 38 per cent of all dwelling fire fatalities in 2014/15.

Mains powered alarms continue to have a lower failure rate than battery powered alarms. 21 per cent of mains powered smoke alarms failed to operate in dwelling fires in 2014/15 in England, whereas 40 per cent of battery powered alarms failed to operate in similar incidents. The main reason mains powered smoke alarms failed to operate in dwelling fires in 2014/15 was that the fire products (e.g. smoke) did not reach the detector(s) with 48 per cent of incidents. The main reason battery powered smoke alarms failed to operate in dwelling fires in 2014/15 in England was that the fire products did not reach the detector(s) in 44 per cent of incidents.

Fires where a smoke alarm was not present accounted for 46 per cent of all other building (buildings that are not dwellings) fires and 24 per cent of all other building fire fatalities and casualties (combined) in 2014/15.

Fire safety features in the homes of the elderly and disabled must be adjusted to meet their needs. For example, for people suffering from hearing difficulties special smoke alarms can be fitted in their homes with strobe lights and vibrator pads so that they are alerted if a fire happens in their home. This is taken into account by WFRS during HFSCs.

In Warwickshire, the smoke alarm ownership figures are closely aligned with those of England and Great Britain as a whole. Over the 3 year period of 2013 to 2015, there were a total of 519 home fires (both accidental and deliberate) as detailed earlier in the report. In 69% of these homes, a smoke alarm was installed.

New legislation surrounding the installation of smoke alarms into privately rented accommodation came into force through the Smoke and Carbon Monoxide Alarm Regulations Act of 2015. As part of this, WFRS will continue to distribute alarms to private landlords on request, advising them of their maintenance responsibilities.

### Emerging Trends and Conclusions:

Although the smoke alarm ownership figures in Warwickshire are generally high, home fires and particularly ADFs, involve a very high life risk. This is especially true for the elderly who are amongst the most vulnerable groups in Warwickshire's community (as detailed in the Future Risks and Opportunities section of this profile). It is thus important for WFRS to continue working with partner agencies to reach the elderly and enable them to live safely and independently.

### Deliberate Home Fires

These are fires in homes where ignition is suspected to be intentional or malicious. The table below shows, for the 3 year period of January 2013 to December 2015, the numbers of deliberate home fires by station cluster.

Station Cluster	Jan - Dec 2015	Jan - Dec 2014	Jan - Dec 2013	Share of Total
Alcester	0	0	1	2.0%
North Warwickshire	1	3	2	11.8%
Nuneaton & Bedworth	8	8	8	47.1%
Rugby	2	3	4	17.6%
Stratford	0	2	0	3.9%
Warwick	6	3	0	17.6%
<b>Warwickshire Total</b>	<b>17</b>	<b>19</b>	<b>15</b>	<b>100.0%</b>

### Key Trends

- Over the three year timeframe of 2013 to 2015, a total of **51 deliberate home fires were attended**.
- The highest proportion of incidents reported was in **Nuneaton and Bedworth Borough (47%, 24 incidents)**
- The **lowest number of reported incidents was in the Alcester area**, which has not had an incident since 2013.
- **Nuneaton and Bedworth has kept at a consistent level with 8 incidents each year.**

## B. Business Fires

**Action** - *To continue conducting risk-based inspections of business premises and advocating the installation of sprinklers in non-domestic properties and in new developments.*

Fire safety legislation (Regulatory Reform (Fire Safety) Order 2005) is enforced by the Fire Protection department who audit premises through an intelligence led risk based inspection principle which can be adapted to address both local and national trends.

Their work helps raise awareness of the risk of fire in the workplace, ensures safety of employees and premises through help and advice and, if necessary, enforcement of legislation. In 2015/16 the Fire Protection department undertook 452 fire safety audits of which 244 were deemed satisfactory and 208 unsatisfactory (those requiring further action). A total of 29 enforcement and/or prohibition notifications were issued.

In addition to the full fire safety audits there are other fire protection activities undertaken which include Business Fire Safety Checks, post fire audits, building regulation consultations, enforcement/prohibition action as well as inspecting under other legislation such as the Housing Act, Marriage Act and Licencing Act.

Across the County, there are a number of premises which pose a higher risk to the public and WFRS in case of an emergency. At these premises, a more detailed inspection is carried out to ensure that WFRS comprehensively understands the risks associated with each building so that they are better equipped to effectively deal with any incidents that happen. The cost of business fires is particularly high for warehouses where there is a loss of inventory involved along with property loss and the costs incurred by the disruption to business activities caused.

### Causes of incidents

- The top cause of fires in non-residential buildings were **wiring, cabling and plugs** (13%)

The top five wards where business Fires were reported are as follows:

1. Saltisford (Warwick District)
2. Poplar (Nuneaton & Bedworth Borough)
3. Abbey (Nuneaton & Bedworth Borough)
4. Clarendon (Warwick District)
5. Dunsmore (Rugby Borough)

### Accidental Business Fires

This section discusses fires in commercial properties of an accidental nature over the 3 year period of 2013 to 2015.

#### Accidental Business Fires by Station Cluster

Station Cluster	Jan - Dec 2015	Jan - Dec 2014	Jan - Dec 2013	Share of Total
Alcester	6	2	5	6.3%
North Warwickshire	12	9	8	14.1%
Nuneaton & Bedworth	10	15	15	19.5%
Rugby	17	17	15	23.9%
Stratford	15	8	10	16.1%
Warwick	13	14	14	20.0%
<b>Warwickshire Total</b>	<b>73</b>	<b>65</b>	<b>67</b>	<b>100.0%</b>

#### Key Trends

- Over the 3 year period, accidental business fires have **increased by 9% (6 incidents)**
- **Rugby Borough has the largest number of incidents** reported (49) followed by Warwick District with 41 incidents.
- The **biggest increase** was seen in **Stratford** with 5 incidents, followed by **North Warwickshire** with 4 incidents.
- Only **Nuneaton and Bedworth and Warwick saw reductions**
- During the time in question, the **largest share of these types of incidents (23%) occurred in the Nuneaton and Bedworth Borough**. However, this borough has experienced a **reduction** in the number of accidental business fires of 33%.

### Deliberate Business Fires

This section details the cases of deliberate fire setting to commercial properties in Warwickshire between January 2013 and December 2015.

## Deliberate Business Fires by Station Cluster

Station Cluster	Jan - Dec 2015	Jan - Dec 2014	Jan - Dec 2013	Share of Total
Alcester	1	1	1	6.3%
North Warwickshire	6	0	1	14.6%
Nuneaton & Bedworth	5	5	6	33.3%
Rugby	2	3	2	14.6%
Stratford	0	1	1	4.2%
Warwick	3	4	6	27.1%
<b>Warwickshire Total</b>	<b>17</b>	<b>14</b>	<b>17</b>	<b>100.0%</b>

## Key Trends

- **All but one area (North Warwickshire) saw a reduction** in business deliberate fire setting incidents
- Overall, **Warwick saw the largest reduction** in incidents. Although this was 50%, incidents reduced from 6 in 2013 to 3 in 2015.
- **Warwick has the largest number of incidents** across Warwickshire (13)
- During the 3 year period, incidents have remained at consistently low levels

## C. Vehicle Fires

**Action** - *Work with partners to reduce vehicle fires*

This sub-category comprises both accidental and deliberate vehicle fires, and falls under Primary Fires. A distinction should be made between these vehicle fires and those included in the 'Secondary Fire' category, which are fires in *derelict vehicles*.

Over the 3 year period, a total of **817** vehicle fires were reported. **Vehicle fires thus comprise the largest proportion of primary fires attended.** Most vehicle fires (63% or 517 incidents) were accidental and the remainder (37%) were deliberate. All incidents will be further detailed by their location within the County.



### Accidental Vehicle Fires by Station Cluster

Station Cluster	Jan - Dec 2015	Jan - Dec 2014	Jan - Dec 2013	Share of Total
Alcester	17	19	22	11.2%
North Warwickshire	40	33	40	21.9%
Nuneaton & Bedworth	25	32	36	18.0%
Rugby	43	44	33	23.2%
Stratford	14	17	9	7.7%
Warwick	32	33	28	18.0%
<b>Warwickshire Total</b>	<b>171</b>	<b>178</b>	<b>168</b>	<b>100.0%</b>

### Key Trends

- **An increase of 2%** has been seen in the County in the three year period.
- Although **Stratford District saw the largest proportional increase** in accidental vehicle fires, with an increase of 56% (5 incidents), **Rugby Borough saw the largest increase in incidents** (10) with 33 in 2013 compared to 43 in 2015.
- **Nuneaton and Bedworth Borough saw the largest reduction** of 31% (11 incidents)
- **Rugby Borough saw the largest share with 23%**
- **Rugby Borough saw the largest number of incidents (120)** followed closely with North Warwickshire Borough (113)

The table below shows the number of deliberate vehicle fires by station cluster. Deliberate fire setting is further detailed in the deliberate fire setting

### Deliberate Vehicle Fires by Station Cluster

Station Cluster	Jan - Dec 2015	Jan - Dec 2014	Jan - Dec 2013	Share of Total
Alcester	8	3	6	6.3%
North Warwickshire	11	13	12	13.3%
Nuneaton & Bedworth	43	34	40	43.3%
Rugby	30	18	13	22.6%
Stratford	4	5	1	3.7%
Warwick	11	11	7	10.7%
<b>Warwickshire Total</b>	<b>107</b>	<b>84</b>	<b>79</b>	<b>100.0%</b>

### Key Trends

- An increase of 35% (26 incidents) has been seen in Warwickshire.
- The highest number of deliberate vehicle fire incidents took place in the Nuneaton and Bedworth Borough with 117 incidents (43%).
- Stratford District saw the lowest number of incidents.

## D. Other Fires

**Action** - To continue working with partners to reduce other fires

These are primary fires that do not fall under categories A – C, and include fires to various other valuable assets. Once again, both accidental and deliberate fires are included in this category. Between 2013 and 2015, there were a total of 75 deliberate ‘other’ primary fires and 99 accidental ‘other’ fires. These are broken down by station cluster in the table below.

Accidental Other Fires by Station Cluster

Station Cluster	Jan - Dec 2015	Jan - Dec 2014	Jan - Dec 2013	Share of Total
Alcester	4	1	3	8.1%
North Warwickshire	5	3	2	10.1%
Nuneaton & Bedworth	9	6	9	24.2%
Rugby	8	3	6	17.2%
Stratford	5	7	5	17.2%
Warwick	7	9	7	23.2%
<b>Warwickshire Total</b>	<b>38</b>	<b>29</b>	<b>32</b>	<b>100.0%</b>

### Key Trends

- An increase of 19% has been seen in Warwickshire (6 incidents)
- Nuneaton and Bedworth Borough has had the most other fire incidents reported (24) with a total share of 24%
- North Warwickshire has experienced the highest proportional change of 3 incidents

### Deliberate other Fires by Station Cluster

Station Cluster	Jan - Dec 2015	Jan - Dec 2014	Jan - Dec 2013	Share of Total
Alcester	2	1	1	5.3%
North Warwickshire	5	4	0	12.0%
Nuneaton & Bedworth	11	7	13	41.3%
Rugby	4	6	3	17.3%
Stratford	1	2	0	4.0%
Warwick	7	4	4	20.0%
<b>Warwickshire Total</b>	<b>30</b>	<b>24</b>	<b>21</b>	<b>100.0%</b>

#### Key Trends

- **An increase of 43% has been seen across the County** (9 incidents)
- **Nuneaton and Bedworth Borough was the only area to see a reduction** (15% , 2 incidents) however saw the largest share with the highest number of incidents reported (31)
- **North Warwickshire Borough saw the largest increase of 5 incidents**

## IV. Road Traffic Collisions

**Action** - WFRS recognise that reducing RTC's is a priority and we will continue working with partners such as Warwickshire's Road Safety Unit and Warwickshire and West Mercia Police to promote road safety and develop more road safety initiatives.

Nationally, RTCs are the most frequently attended non-fire incident, comprising 21% of total non-fire incidents attended by English Fire and Rescue Services in 2014/15. Recognising the high risk to life presented within these incidents, this section explores attended incidents separately from the Special Services section of this report (Section 8.)

Analysed aggregately, 594 RTCs were attended by WFRS between January 2013 and December 2015. Overall there has been an increase of 122.9% in the period being reviewed. Increases were seen across all incident types, reflecting policy changes in this area, increasing service provision for these incidents. Consequently, increases can be viewed positively.

Extrications<sup>3</sup> continue to constitute the largest proportion of attended RTCs: 62% of total incidents over the three-year period. The remaining 38% of incidents were divided equally between Services and 'No-Services required,' with 20% and 18% respectively.

For the number of 'Road Traffic Collisions per 10,000 population,' of the 45 English Services compared the best performer had a rate of 02.53. Warwickshire came 25<sup>th</sup> with 5.78, slightly lower than the national average of 5.91.

<sup>3</sup>The removal of people trapped in vehicles following collisions.

**RTS Incidents: 3 Year Overview**

Incident Type	Jan-Dec 2015	Jan - Dec 2014	Jan - Dec 2013	Share of Total
Extrications	147	112	112	62%
Services rendered	112	3	1	20%
No Services rendered	42	43	22	18%
<b>Total RTCs attended</b>	<b>301</b>	<b>158</b>	<b>135</b>	<b>100%</b>

The following table provides a breakdown of RTC extrications by location within the County, recognising that they continue to constitute the largest proportion of attended RTCs in Warwickshire.

**RTC Extractions by Station Cluster**

Station Cluster	Jan-Dec 2015	Jan - Dec 2014	Jan - Dec 2013	Share of Total
Alcester	15	8	9	9%
North Warwickshire	30	19	25	20%
Nuneaton & Bedworth	22	18	29	19%
Rugby	44	26	18	24%
Stratford	19	19	14	14%
Warwick	17	22	17	14%
<b>Warwickshire Total</b>	<b>147</b>	<b>112</b>	<b>112</b>	<b>100%</b>

**Key Trends**

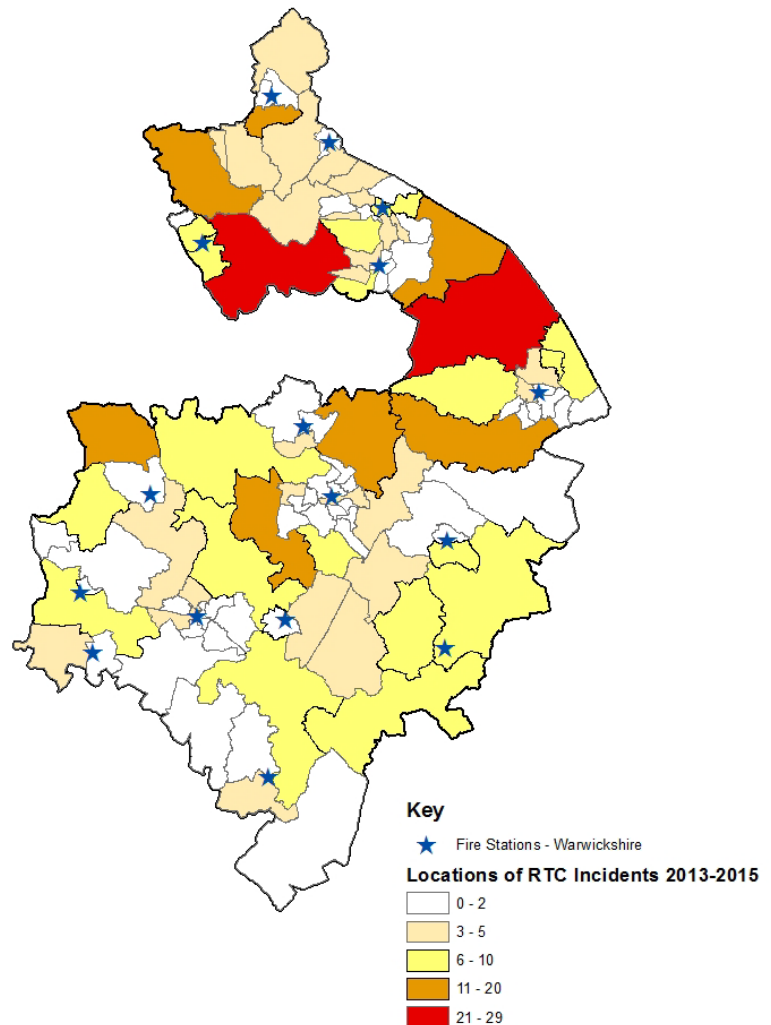
- Over the 3-year period, Rugby and North Warwickshire Station Clusters reported the highest levels of RTC extrications, with 24% and 20% respectively.
- Nuneaton & Bedworth Station Cluster was the only Cluster to report a reduction in levels, comparing 2013 and 2015 results.
- Increases in RTC incidents may be viewed positively, attributed in part to policy changes, attending a greater proportion of reported incidents than WFRS had done previously.

The geographical image illustrates the locations of Warwickshire RTC's between 2013 and 2015. Divided by electoral Ward boundaries, attended incidents occurred most frequently in the central and Northern areas of the County

### Road Safety<sup>4</sup>

Within the analysed period, 923 people were 'killed or seriously injured' (KSI) on Warwickshire's roads.

Though increases in casualties are concerning, it should be recognised that 2013 produced the lowest results on record, both nationally and in Warwickshire. Consequently, it could be suggested that increases in subsequent years could be expected following unprecedented results.



The following table illustrates KSI incident casualty trends. Between 8-10% in each year (2013-2015) were fatal incidents. Viewed as a proportion of total Warwickshire Road Casualties, KSI incidents constituted between 14-15% in each consecutive year, suggesting levels were stable.

**Road Traffic Collisions in Warwickshire Jan 2013 - Dec 2015**

	2013	2014	2015	% of 3 year total
<b>Fatal</b>	23	28	32	<b>9%</b>
<b>Serious</b>	265	287	288	<b>91%</b>
<b>Total</b>	288	315	320	<b>100%</b>

Analysing historic results, reductions have consistently been seen within the last decade, with Department of Communities and Local Government (DCLG) estimating that KSIs have reduced by 43% since 2000. Warwickshire echoes this trend, reporting a reduction of 50% in the number of people killed or seriously injured on the County's roads in the same period, from 639 in 2000 to 320 in 2015.

<sup>4</sup> All information in this section is sourced from "Reported Road Casualties, Warwickshire Road Safety, Annual Report to December 2015" Issue: Release 1

Consequently, despite increases within the analysed period, broader reductions and historic reducing trends should be recognised, attributed in part to improvements in technology, vehicle engineering, reductions in speed limits and improved trauma care.

### Initiatives

RTCs continue to affect all emergency services and WFRS work in partnership with the Police and the WCC Road Safety Safer Roads Partnership to assist in reducing the number of people killed or seriously injured on our roads. A number of joint initiatives have taken place over the reporting period to raise awareness amongst the public. The Police carried out several road side safety seat belt campaigns, where drivers were pulled over for not wearing seat belts and were then given the chance of attending a Fatal 4 presentation delivered by WFRS. Non-attendance would result in the driver receiving points and a fine. These were received very well by the drivers and feedback stated that it was a hard hitting emotional presentation which made several drivers think about what they were doing and the consequences of driving without seat belts. The Fatal 4 presentation covers the 4 main driving offences; speeding, using mobile phones whilst driving, not wearing seat belts and drink/drug driving.

Another joint education initiative is 'Prison? Me? No Way!' led by the Prison Service which brings Police, Fire, Ambulance, prison officers, judges, and court staff all to a one day event delivered to schools. The event is designed to raise awareness of the causes, consequences, penalties and impact of crime: in this case joy riding. After watching a large scale anti-social behaviour role play scene the Year 9 students take part in a range of workshops, delivered by Police, Fire, Ambulance, and Prison Service that deal with anti-social behaviour and its consequences. This initiative is very well established and is always well received amongst school students and staff alike.

During the last academic school year WFRS carried out a total of 87 Fatal 4 sessions delivered by fire fighters with around 2,313 students being made aware of the four main reasons that cause road traffic collisions that kill or seriously injure young people in the 17 to 25 age bracket. WFRS is currently monitoring whether the number of engagements increase now that the Fatal 4 presentation programme is embedded into WCCs Driving Ambitions road safety education program from September 2016.

A full evaluation of the outcomes of the Fatal 4 programme needs to be undertaken over the forthcoming year.

## V. Secondary Fires

### Action

- To continue working with partners to reduce anti-social behaviour and deliberate fire setting;
- To coordinate and deploy deliberate fire setting reduction initiatives;
- To review the process of recording deliberate fires.

This category encompasses fires with no casualties, rescues or valuable property loss. These include outdoor fires, derelict property and derelict vehicle fires (together classed as 'small fires') as well as chimney fires. Outdoor fires include grass fires, refuse fires and straw fires. **Overall in Warwickshire, over the past decade there has been a fall in Secondary Fires of 56%. Despite this, Secondary Fires increased by 12.2% between 2013 and 2015.** This section details the trends seen across the County between 2012 and 2014, including both accidental and deliberate incidents.

When compared nationally for this type of incident per 10,000 population, Warwickshire was ranked **26th** when compared with the other 44 Fire Services across England. The best performer rate was 2.21, Warwickshire was **15.67** slightly better than the national average of **15.83**.

Deliberate secondary fires constituted the majority of secondary fires (69%), accidental secondary fires comprised 22% and the remaining 9% were chimney fires; illustrated in the table below. Secondary fires are the only category of fire in which there are more deliberate than accidental incidents. Consequently, the following section explores deliberate fire setting (arson).

#### Secondary Fires Overview

Type of fire	Jan-Dec 2015	Jan - Dec 2014	Jan - Dec 2013	Share of Total
Accidental Secondary	164	132	161	22%
Deliberate Secondary	507	448	397	69%
Chimney Fires	64	56	97	9%
Total Secondary	<b>735</b>	<b>636</b>	<b>655</b>	<b>100%</b>

Increases in secondary fires can partly be attributed to seasonality, with hot weather frequently linked to an increase in both outdoor and deliberate small fires, and wet weather with a reduction in fire incidents.

The following table analyses accidental secondary fires (ASF) 2013-2015. Refuse fires and grass fires continue to constitute the largest proportion of ASF.



### Accidental Secondary Fires (exc chimney) Jan 2013 – Dec 2015

Type of fire	Jan-Dec 2015	Jan - Dec 2014	Jan - Dec 2013	Share of Total
Derelict Property	0	2	2	0%
Derelict Vehicle	0	0	1	0%
Grass fires	60	57	87	37%
Outdoor structures	13	5	5	8%
Refuse fires	76	62	60	46%
Straw fires	3	6	6	2%
<b>Warwickshire Total</b>	<b>164</b>	<b>132</b>	<b>161</b>	<b>100%</b>

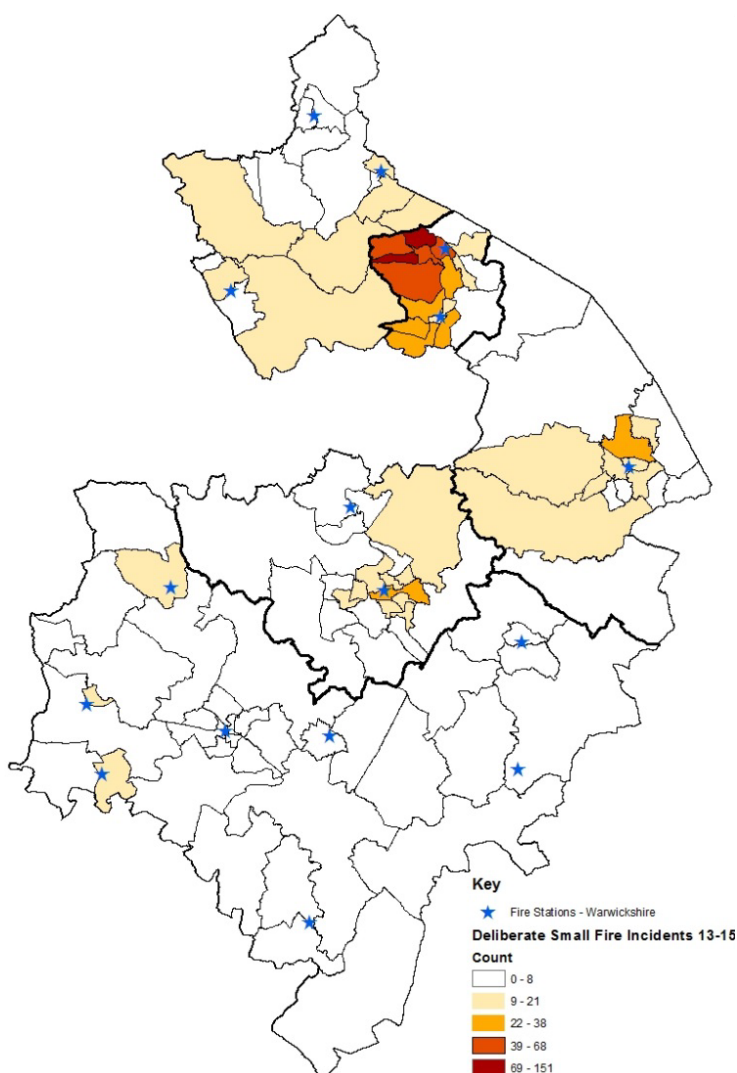
#### Key Trends

- Overall, there was a 2% increase in accidental small fires between January 2013 and December 2015.
- In absolute values, the largest change was seen in accidental fires in outdoor structures which increased by 160% between 2013 and 2015. Despite this, the relatively low number of these incidents (13) should be recognised.
- The following 5 wards reported the highest level of ASF incidents in 2015:
  - Newbold and Brownsover (Rugby Borough) (5%)
  - Camp Hill (Nuneaton & Bedworth Borough) (4%)
  - Wolston and the Lawfords (Rugby Borough) (3%)
  - Abbey Ward (Warwick District) (3%)
  - Shipston North (Stratford-on-Avon District) (3%).

In Great Britain, there was an increase in secondary fires attended by fire and rescue authorities between 2012 and 2015. This rise was due to the remarkably low number of fire incidents reported in 2012 because of the extremely high rainfall that year and the unusually warm weather the following year. Warwickshire was in line with this trend, with a total of 655 secondary fires in 2013 and 735 in 2015.

### Deliberate Secondary Fires Jan 2013 – Dec 2015

Type of fire	Jan-Dec 2015	Jan - Dec 2014	Jan - Dec 2013	Share of Total
Derelict property	0	7	5	0%
Derelict vehicle	0	8	4	0%
Grass fires	146	170	166	29%
Outdoor structures	14	12	11	3%
Refuse fires	283	239	206	56%
Straw fires	10	12	5	2%
<b>Warwickshire Total</b>	<b>507</b>	<b>448</b>	<b>397</b>	<b>100.0%</b>



The map illustrates deliberate secondary fires in Warwickshire between 2013 and 2015.

The following section details incidents of deliberate fire setting across the County of Warwickshire for the time period under examination. It expands upon the brief description of different types of deliberate fires in earlier sections of the report, and focuses mainly on deliberate secondary fires, as these are the majority of secondary fires and on the Nuneaton and Bedworth Borough where the highest proportion of these incidents occurs.

## VI. Deliberate Fire Setting

**Action** - *To continue working with partners to reduce deliberate fire settings, particularly in Nuneaton and Bedworth Borough*

This section is related to incidents of deliberate fire setting, where the source of ignition is believed to be malicious or deliberate. It includes fires of both a primary and secondary nature, but is mostly comprised of secondary fires.

### All deliberate Fires: 3 Year Overview

Type of fire	Jan - Dec 2015	Jan - Dec 2014	Jan - Dec 2013	Share of Total
Total Deliberate Secondary Fires	507	448	397	<b>28.2%</b>
Total Deliberate Primary Fires	171	141	132	<b>9.5%</b>
Total Deliberate Fires	<b>678</b>	<b>589</b>	<b>529</b>	<b>37.8%</b>

Deliberate primary fires are of particular concern to WFRS as they pose a greater risk to human life and also involve property of high value.

For 2015/16 when compared nationally per 10,000 population for the 45 Services being compared the best performance rate was 4.39. Warwickshire came **29th** with a rate of **12.15**, better than the national average of **13.78**.

In 2015, Nuneaton and Bedworth Borough has had the most primary fires reported (67 incidents) accounting for 39% of all deliberate fires in the County, and the most secondary fires reported also. With 298 incidents reported, accounting for 59% of all secondary fires in the County.

In 2015, of the deliberate primary fires reported in Nuneaton and Bedworth Borough, the majority of these were deliberate car fires, which accounted for 64% (43 incidents). Of the deliberate secondary fires reported in Nuneaton and Bedworth Borough, setting fire to refuse was the main ignition type, accounting for 32% of all deliberate secondary fires in the County.

Plausible explanations for this include various socioeconomic factors which are noted in the Future Risks and Opportunities section of this document. These include the relatively high levels of unemployment, poverty and (perhaps subsequently) high levels of crime and anti-social behaviour (ASB) incidents in the Nuneaton and Bedworth Borough as compared to other districts and boroughs within Warwickshire.

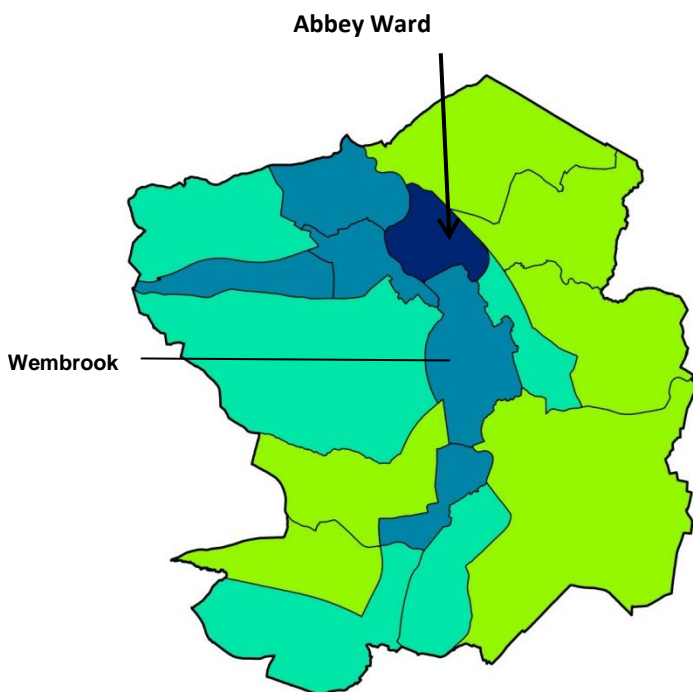
**Deliberate Primary Fires Jan 2013 – Dec 2015**

Incident Type	Jan - Dec 2015	Jan - Dec 2014	Jan - Dec 2013	Share of Total
Deliberate Home Fires	17	19	15	11.5%
Deliberate Business Fires	17	14	17	10.8%
Deliberate Vehicle Fires	107	84	79	60.8%
Deliberate Other Fires	30	24	21	16.9%
<b>Warwickshire Total</b>	<b>171</b>	<b>141</b>	<b>132</b>	<b>100.0%</b>

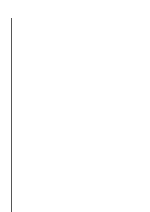
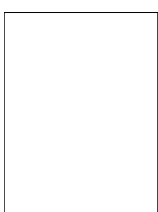
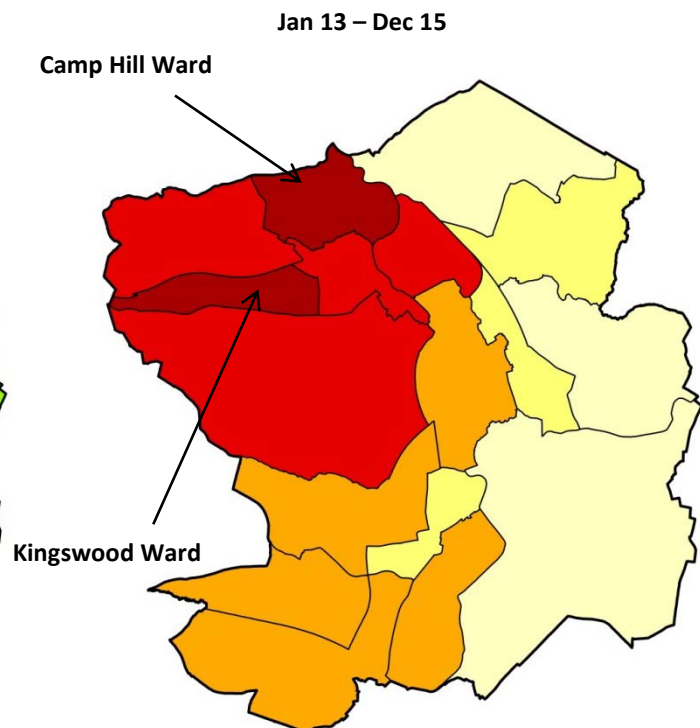
The maps below show the hotspots for deliberate small fires as identified by WFRS' Performance Information Department against ASB incidents, within the Nuneaton and Bedworth Borough.

There is a strong link between anti-social behaviour and incidents of deliberate small fires, as ASB incidents include deliberate fire setting. Nuneaton and Bedworth has the highest proportion (32%) of ASB incidents in the County over the previous three year period and of the top five wards in Warwickshire County for anti-social behaviour, two are in Nuneaton and Bedworth. These are: **Abbey and Wem Brook.**

**ASB Incidents in Nuneaton and Bedworth**



**DSF incidents in Nuneaton and Bedworth**



### Key Points

- Overall, there was an increase seen in the number of DSFs in 2015 (31%).
- More than half of DSFs were refuse fires (55%), followed by grass fires (36%) and combined these two items accounted for 91% of all DSFs.
- Outdoor fires have increased from 11 incidents in 2013 to 68 in 2015
- There are also issues surrounding the build-up of rubbish and the prevalence of void properties in the more deprived areas of the County (e.g. Nuneaton & Bedworth), which are easily targeted by arsonists.

### Initiatives in place:

1. WFRS operates a **Small Fires Unit (SFU)** in Nuneaton and Bedworth throughout the year, and patrols are increased in frequency during times such as school holidays, Halloween and Bonfire periods. This unit is dedicated to driving down deliberate fire setting activity through youth engagement, intelligence gathering and raising awareness of nuisance fire setting. The crew consist of three WFRS staff and a PCSO (Warwickshire Police). A major advantage to dedicating a team to small/nuisance fires is that it means larger fire engines are available for emergencies involving a life risk (e.g. primary fires such as ADFs). In 2015, SFUs were mobilised on 166 occasions.
  - **The Small Fires Unit attended a total of 249 deliberate small fires in the Nuneaton and Bedworth borough** between January 2012 and December 2014, and over 90% of these were grassland and woodland fires.
  - In addition to SFU, the Arson Reduction Officer works with partner agencies to reduce deliberate fire setting activity. This is done, for example, by working with other agencies to secure premises which are vacant and identify deliberate fire setting hotspots which would otherwise be easily targeted by arsonists. This is extended to incorporate a strong working relationship with building control to identify unsafe structures.
  - **A major advantage to dedicating a team to small/nuisance fires is that it means larger fire engines are available for emergencies involving a life risk (e.g. primary fires such as AHFs)**
2. The **Anti-Social Behaviour Intervention Team (ASBIT)** works in known deliberate fire setting hotspots across the County, engaging with and educating young people in local areas.
3. The **Bicycle Intervention Knowledge and Education (BIKE)** initiative is an extension of the SFU team which enables staff to target areas the SFU cannot access, such as woodlands and farmlands.
4. The **Two Wheels in Motion** initiative was first launched in September 2014, and acts as both a road safety and deliberate fire setting reduction initiative. It is targeted at young motorcycle and scooter owners (aged 14 -18) and educates them on safe riding and the use of protective gear. It also informs them of the dangers of deliberate fire setting as these types of vehicles are sometimes set fire to by their owners. This scheme is run in conjunction with Warwickshire Youth Justice Service.
5. The **Car Clear Scheme** sees WFRS working with partners to ensure that abandoned vehicles are identified and crushed in a timely manner to avoid them being targeted by arsonists.

WFRS also attend Community Safety Partnership (CSP) meetings alongside other forums (such as the Deliberate Fire Setting Forum) and receive regular data from the Performance Information Department so that crews have timely information to support their partnership reporting requirements.

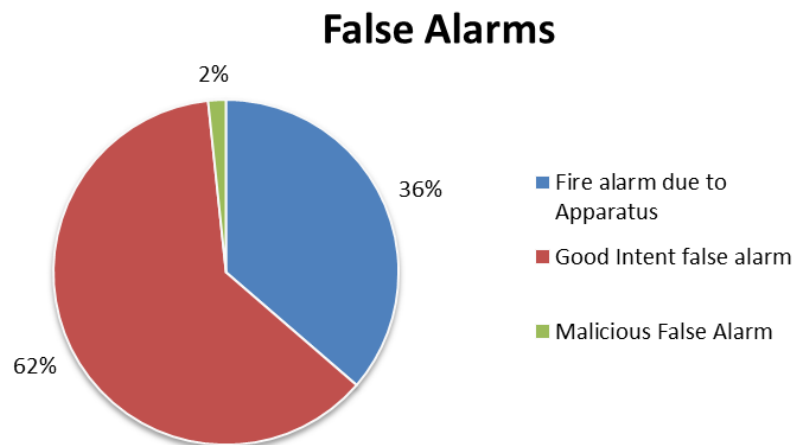
**Emerging Issues: Vacant properties are particularly prone to deliberate fire setting activity. Given the current economic climate, with businesses shutting down, the number of void properties is increasing, posing a threat of increased deliberate fire setting in void properties. Although necessary, responding to these types of incidents distracts attention and diverts resources from life risk incidents.**

## VII. False Alarms

### Actions

- *To continue employing the Call Challenge policy;*
- *To introduce a more risk-based mobilisation policy for automatic false alarm incidents;*
- *Undertake further investigation to understand FAGIs and develop strategies to reduce them.*

False alarms are incidents where WFRS attend a location only to discover that there is/was no actual fire incident. Divided between False Alarms with Good Intent, Malicious False Alarms and Automatic False Alarms, they consistently constitute the largest proportion of incidents attended by WFRS. The following chart illustrates the share of each type of false alarm of the total number of incidents from January 2013 to December 2015.



Over the 3 year period under examination, the largest proportion of false alarms reported were False Alarms with Good Intent (FAGIs): calls where the caller believes there to be an emergency situation but on arrival it is found that the services of WFRS are not actually required. FAGIs accounted for approximately two thirds of all false alarm incidents.

The table below illustrates the change in the different types of false alarms over the period spanning January 2013 to December 2015.

#### Change in false alarm incidents by type

Type of false alarm	Jan-Dec 2015	Jan - Dec 2014	Jan - Dec 2013
Automatic False Alarms	509	246	182
Malicious False Alarms	22	30	40
False Alarms with Good Intent	787	765	866
<b>Total False Alarms</b>	<b>1,318</b>	<b>1,088</b>	<b>1,088</b>

#### Key Trends

- Overall, there was a 21.1% increase in false alarm incidents between 2013 and 2015;
- This increase can be attributed to an increase of 179% in Automatic False Alarms (182 in 2013, 509 in 2015). A change in mobilising policy has had a significant impact on the increase in turns outs to AFAs.
- False Alarm with Good Intent incidents remain the most frequent False Alarm type, comprising over 60% of total False Alarm incidents in each 12-month period;
- Both Malicious False Alarms and False Alarms with Good Intent incidents reduced during the 3-year period.

#### A . False Alarm Good Intent (FAGI)

As previously noted, these incidents represented the largest proportion of false alarm incidents reported to WFRS. The table below shows the number of FAGIs reported to each station cluster.

#### False Alarms with Good Intent by Area

Station Cluster	Jan-Dec 2015	Jan - Dec 2014	Jan - Dec 2013	Share of Total
Alcester	51	55	55	6%
North Warwickshire	103	105	90	13%
Nuneaton & Bedworth	225	205	268	29%
Rugby	158	145	178	20%
Stratford	88	95	84	11%
Warwick	162	160	191	21%
<b>Warwickshire Total</b>	<b>787</b>	<b>765</b>	<b>866</b>	<b>100%</b>



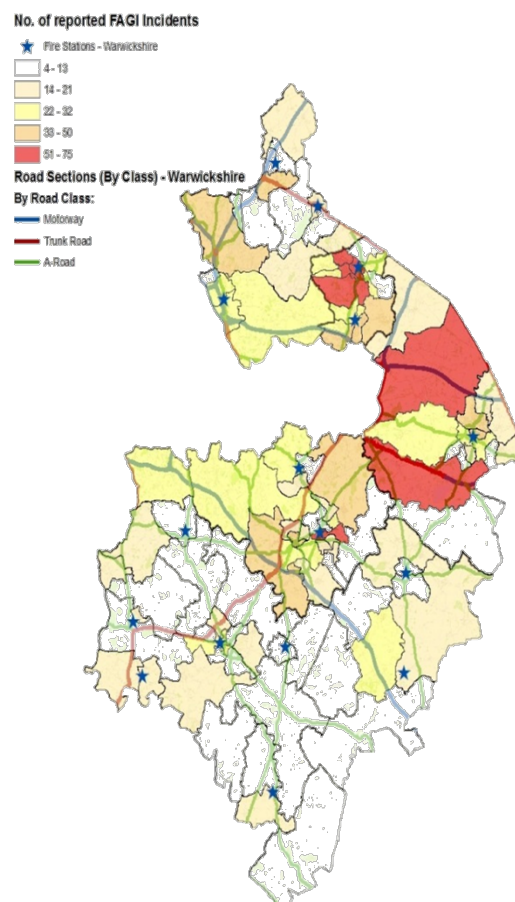
### Key Trends

- Overall, FAGI incidents reduced by 9% over the 3-year period;
- In descending order, decreases were seen in Nuneaton & Bedworth (16%), Warwick (15%), Rugby (11%) and Alcester (7%) Station Cluster areas;
- Increases were reported in North Warwickshire (14%) and Stratford (5% station Clusters);
- Nuneaton & Bedworth station cluster reported the largest proportion of FAGI, with 29% attended here;
- Alcester station cluster consistently reported the lowest proportion of FAGI incidents with 6% of total incidents in 2015.

The map below depicts FAGIs attended across Warwickshire between January 2013 and December 2015. One explanation for the dispersed nature of incidents is the absence of any socio-economic and demographic link to FAGI incidents, resulting in the lack of a specific link or connection to particular locations within the County. Others draw correlations between major road networks and FAGI incidents. Consequently, major road networks have been applied to the map overleaf.

### Emerging Issues:

Although current FAGI levels represent a significant decrease from levels ten years earlier, they still make up the highest share of attended incidents. Reducing levels of False Alarms with Good Intent is challenging for many reasons, notably the good-nature and intent of the caller.



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## B. Automatic False Alarms

Automatic False alarms (AFAs) are defined as calls received from non-domestic automatic fire alarm systems. Between January and December 2015, 509 AFA incidents were attended by WFRS. The following table illustrates incidents by station cluster, highlighting variations between 2013 and 2015.

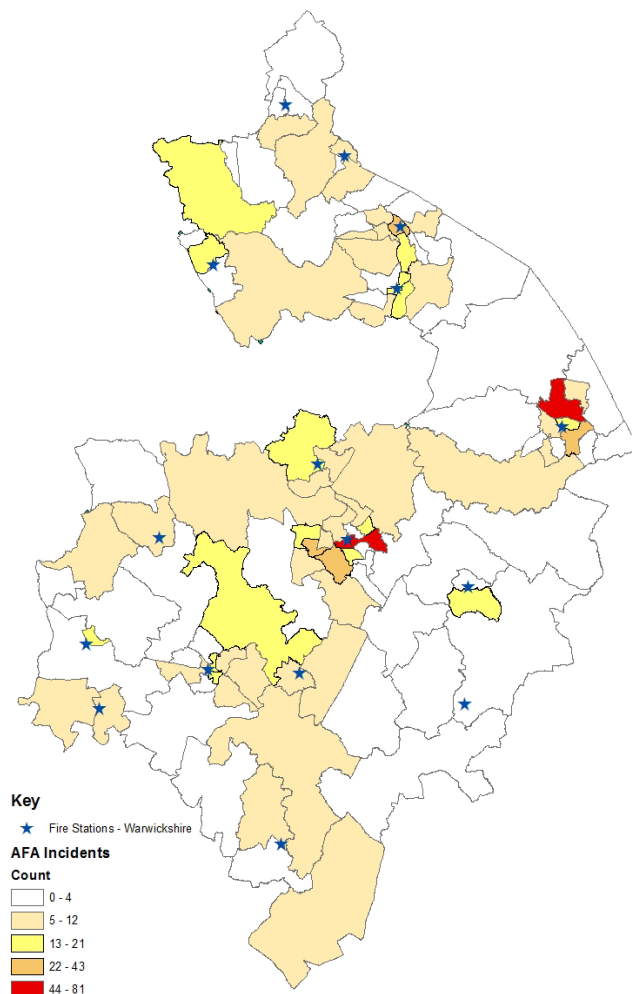
Station Cluster	Jan-Dec 2015	Jan - Dec 2014	Jan - Dec 2013	Share of Total
Alcester	45	13	10	9%
North Warwickshire	37	30	20	7%
Nuneaton and Bedworth	88	31	27	17%
Rugby	110	49	35	22%
Stratford	71	41	25	14%
Warwick	158	82	65	31%
Warwickshire Total	509	246	182	100.00%

### Key Trends

- Overall, AFA's increased by 180% between 2013 and 2015;
- Warwick Station Cluster constituted the largest proportion of incidents in 2015; with 31% reported district had the largest proportion here.

From 2013 to 2015 an AFA policy was in place that provided a limited response to some properties in the evening, and no response in the day (when the properties were occupied). The intention of the policy was to significantly reduce the number of turn outs to unwanted AFAs. Although the policy was successful in this respect it was out of step with national guidance. The AFA policy was reviewed in 2015, and as part of the review the AFA mobilising process was relaxed, leading to a significant increase in the number of turn outs to AFAs. Following the review a new risk based AFA mobilising policy was introduced in July 2016. This new policy differentiates a call from a care home, hospital or domestic residence and an unoccupied building with no 'life risk' occupancy.

Automatic False Alarms in Warwickshire Jan 2013 - Dec



This approach will ensure turn outs to unwanted AFAs are minimised whilst ensuring we make a response to those properties where vulnerable members of our community are at risk. It is expected that the number of AFA turn outs will be reduced in comparison with the 2015 figure.

Adopting a more appropriate response to risk means that more time can be spent on preventative measures and engaging with communities on the merits of self-prevention, education and regulation changes

### C. Malicious False Alarms

The final sub-category of false alarm incidents is Malicious False Alarms. These are calls made to WFRS without there being an actual emergency, but in contrast to FAGI, here the caller is aware of this. The intention behind these calls is to purposefully mislead FRS into turning up at the scene of alleged emergency.

Overall, Malicious False Alarms (MFAs) reduced by 45% between 2013 and 2015.

MFA incidents in the County of Warwickshire remain low, at approximately 2 per month. Despite this, a disproportionate amount of MFA incidents occurred in the Nuneaton and Bedworth area (59%), suggesting that work may be needed to target the perpetrators of these incidents.

#### Malicious False Alarms by area

Station Cluster	Jan-Dec 2015	Jan - Dec 2014	Jan - Dec 2013	Share of Total
Alcester	1	2	2	5%
North Warwickshire	1	2	2	5%
Nuneaton and Bedworth	13	10	7	59%
Rugby	3	6	14	14%
Stratford	3	2	3	14%
Warwick	1	8	12	5%
Total	22	30	40	100.00%

#### Key Trends

- Between January 2013 and December 2015, a total of **92** malicious false alarms occurred in Warwickshire;
- Of these, 59% occurred in Nuneaton & Bedworth Borough, suggesting that initiatives may need to raise awareness of the severity of wasted service time;
- Alcester, North Warwickshire and Warwick Station Clusters reported the lowest levels of MFA incidents between January and December 2015, each reporting 1 incident;
- All Station Clusters bar Nuneaton and Bedworth saw a reduction or stable level of MFA incidents

## VIII. Special Services

**Action** - *To review WFRS' capacity to respond to special incidents*

Non-fire incidents, (excluding RTCs) that are attended by WFRS are classed as Special Services. This category includes a myriad of incidents that require attendance of a fire officer or appliance, from domestic and local incidents to major disasters. These include, for example, leaks and spills, stabilising unsafe structures and water rescue.

The table below shows the number of Special Services attended by WFRS in each station cluster over the 3 year period in consideration

Station Cluster	Jan-Dec 2015	Jan - Dec 2014	Jan - Dec 2013	Share of Total
Alcester	21	14	16	8%
North Warwickshire	30	36	27	12%
Nuneaton & Bedworth	58	37	37	22%
Rugby	50	41	35	19%
Stratford	29	29	29	11%
Warwick	71	54	40	28%
<b>Warwickshire Total</b>	<b>259</b>	<b>211</b>	<b>184</b>	<b>100%</b>

### Key Trends

- Overall, there has been an increase in Special Service incidents of 40.7% between 2013 and 2015;
- All Districts and Boroughs saw an increase, bar Stratford who reported the same level throughout the 3-year period;
- The largest Increase in incidents was seen in the Warwick area, where a 71% increase was reported;
- Warwick District consistently reported the largest proportion of incidents over the 3 years (28%), followed by Nuneaton & Bedworth (22%);
- 'Effecting entry or exit' was the most frequently attended Special Service in 2015, with 20% of all services identified as such. 'Other rescue/release of persons' constituted a further 15% of attended incidents. Consequently, 35% of incidents involved exit/release of objects/persons.

### Policy changes:

The 'Call Challenge' policy was introduced in 2011 by WFRS, which meant that when a call was received regarding a special service incident, control room operators informed the caller that for some incidents a cost may be associated with WFRS attending. Additionally WFRS stopped sending a

fire engine to some incident types such as those involving small animals, persons stuck in lifts and localised flooding.

This led to an overall decrease in demand. It is important to note, however, that this did not have an impact on WFRS mobilising to, or attending, incidents involving life risk or distress. Subsequently WFRS has reviewed the Call Challenge policy and in the desire to increase the social value that WFRS provides, the range of special service incidents attended by WFRS has been increased.

Emerging issues: Climate change and changing weather patterns are posited as contributory factors for increased FRS demand.

In recent years, many parts of the UK have suffered from heavy rainfall resulting in flooding, notably in Northern England in winter 2015. The Yorkshire and Cumbria areas experienced significant flooding following storms Desmond and Eva, compounded by record rainfall in the region that year. Rivers in Lancashire rose to some of the highest levels ever seen, while Yorkshire rivers like the Aire and the Wharfe were up to a metre higher than previous records. The BBC reported that around 16,000 properties were flooded as a result of those events. Warwickshire provided assistance for the Cumbria event, illustrating the importance of a versatile, resilient and highly skilled workforce, responding to changing need.

## IX. Risk Management

WFRS takes a proactive approach to dealing with the ever-present threat of fire and other emergencies. It considers the risks within Warwickshire, including the impacts of any planned changes within the built environment.

### Premises Risk

Premises are surveyed and risk assessed by WFRS so that fire crews are familiarised with the risks associated with, and unique to, each premises. These risk assessments are distinct from fire safety inspections which are sometimes conducted during the same visit.

There are 26 criteria used to assess premises risk. These include: how a building is constructed, what it is used for, its layout and its contents (e.g. hazardous materials). For each criterion, buildings are scored as having either a low, moderate or severe level of hazard.

These scores are then tallied and a risk level is assigned to each premises. A building with up to 2 severe hazards is classed as a Level 1, those with between 3 and 5 severe hazards are a Level 2 and premises with more than 5 severe hazards are categorised as Level 3. Once they are scored, buildings are referenced with a unique number and information is gathered to support the formulation of operational strategies and tactics. In the case of Level 3 buildings operational plans are also made detailing how a fire would be dealt with in a safe and effective way such that damage is mitigated should a fire occur. Hence, the more risk present in the building the more information provided for the support of operational plans. Across Warwickshire there are 127 Level 2 buildings, including building types such as hotels, hospitals and factories. There are 39 Level 3 buildings in Warwickshire.

## Heritage Risk

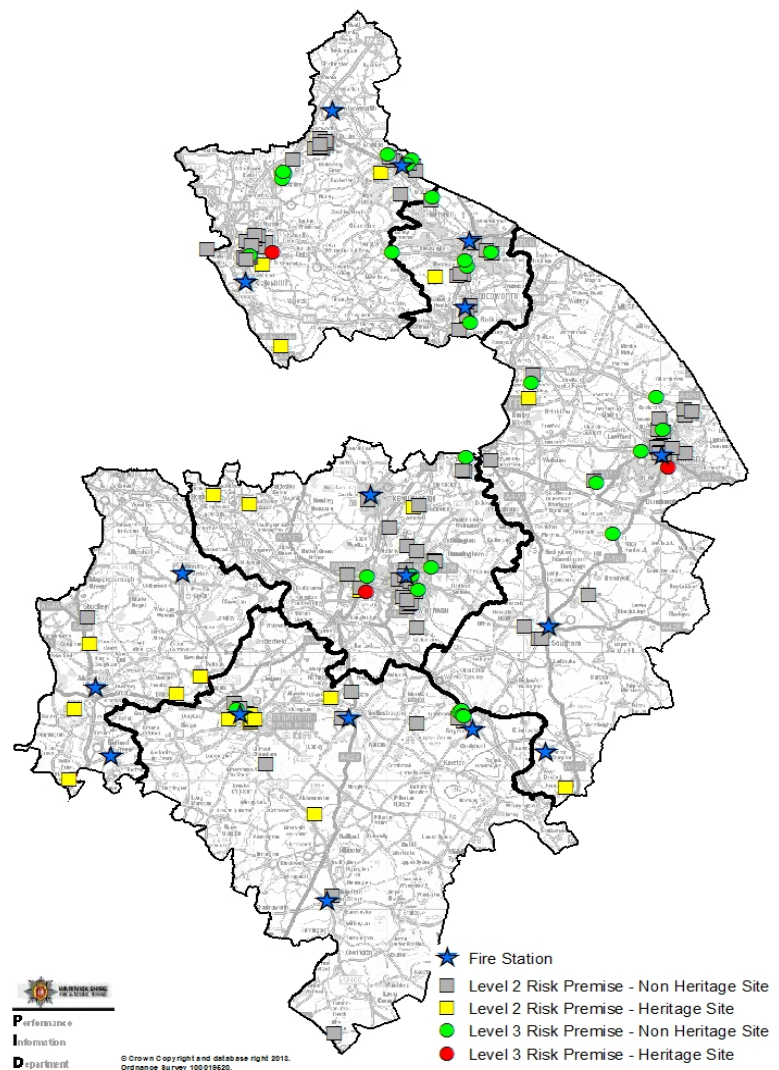
A subcategory of high risk buildings is heritage buildings. These properties are buildings that are important to the country's heritage and history, and some of them were built as far back as medieval times. This section concerns the protection of heritage properties from fire, and the management of the 'heritage risk' associated with such buildings. One of the 26 criteria used in premises risk assessments detailed previously is 'heritage' which assesses whether the building is listed, of local, national or international importance.

Heritage buildings pose a great threat to firefighter safety due to their complex layouts and old construction. They are also immensely valuable assets and often contain irreplaceable artefacts.

Warwickshire County is renowned for many of its historical attractions such as Warwick Castle, which was originally built in 1068 and is a Level 3 risk heritage building. Heritage buildings contribute largely to Warwickshire's economy through the creation of employment opportunities as well as through the attraction of tourists from across the country and world.

There is legislation surrounding the responsibilities of fire and rescue authorities to manage heritage risk, and this is taken into account by WFRS. WFRS also works with heritage building occupiers and owners to advise them on how to reduce the risk of fire. The map below shows high risk properties across the County. As detailed above, WFRS firefighters are aware of the location of all of these properties and of their associated risks.

The map shows Level 2 and Level 3 risk properties across Warwickshire, including both heritage and non-heritage buildings.



## Sprinklers

Automatic Fire Suppression Systems, more commonly referred to as sprinklers, are strongly championed by WFRS. Sprinklers have been proven to have up to a 99% success rate, and in the UK a death from fire has never occurred in a building fully fitted with sprinklers<sup>5</sup>.

When there is a fire, sprinkler heads act as heat sensors and operate when their temperature rises to between 57 and 68 degrees, and each fire head is individually activated. This means that not all sprinklers in a building operate/ need to operate in order to control a fire. In almost 90% of cases, the activation of sprinklers is able to confine the fire to the room in which it started (room of origin).

There are several benefits of installing sprinklers in a commercial or domestic building. These can be broadly classified into 4 categories:

1. A reduction in the number of fire fatalities and casualties.  
Sprinklers reduce fatalities and casualties from fire in a number of ways such as by allowing people to escape the building while the fire is confined and by reducing the toxicity—and quantity of smoke which is the main cause of fire fatalities.
2. A reduction in property damages and a subsequent reduction in insurance costs and premiums.  
By for example restricting the fire to its room of origin, and allowing more time to evacuate, property damages in sprinklered properties have been shown to be less by between 30 and 60% than in buildings without sprinkler systems.
3. A reduction in the environmental impact of fires.  
Substantially less water is required by sprinklers to contain a fire as compared to that needed by firefighters to manually suppress a fire. They also reduce the carbon footprint of fires, by controlling and sometimes extinguishing them altogether. Sprinklers also act to reduce the amount of this run-off water, and to reduce the requirement for the disposal of hazardous waste.
4. A reduction in incident levels attended by fire and rescue services and subsequent cost savings.  
Sprinklers control fires whilst fire crews arrive at the scene of a fire meaning fewer appliances are required. Sprinklers also mean that the number of Automatic False Alarm incidents is reduced.

WFRS recognises these benefits and advocates the installation of sprinklers in non-domestic premises and in new housing developments. WFRS can continue to support sprinkler installation through working with WCC to allocate Community Infrastructure Levy funds towards the installation of sprinklers in new developments. Alternatively, WFRS and WCC could incentivise property developers to install sprinklers by granting a concession on the CIL payable on fully sprinklered buildings.

<sup>5</sup> The following section has been adapted from the 2013 CFOA report 'Business Case for Sprinklers.'



## Community Infrastructure Levy/Section 106

The Community Infrastructure Levy (CIL) is a charge on development implemented by the Local Planning Authorities. None of the District or Borough Councils within Warwickshire have implemented CIL yet although it is expected that Stratford District will do so towards the end of 2016. CIL is effectively a roof tax on new development with funds being collected by the Local Planning Authority. Funds will then be distributed according to priority of need although it should be noted that up to 25% will be allocated to the neighbourhood where development has taken place to support the priorities within the adopted Neighbourhood Plan. There are currently several building types for which developers are not required to pay CIL - e.g. those used by charities and social housing, and developments smaller than 100m<sup>2</sup> (excluding homes) are also exempt from CIL. The CIL can be paid as cash or in the form of land or infrastructure.

It is envisaged that CIL will replace Section 106 contributions for all but large scale development. This will reduce the level of control WCC has in securing and identifying funds for spends against the delivery of infrastructure. This is further discussed in the Future Risks and Opportunities Section.

WFRS is presently engaging with Rugby Borough Council in response to their local plan which will produce 12,400 new dwellings between 2011 and 2031. The Service has assessed the impact of this and is considering how it may need to change its response model to adapt to these changes. This would be achieved through requesting funding from the developers through Section 106 of the Town and Country Planning Act 1990.

## Water Risk

People die and suffer life changing injuries every day as a result of drowning in the UK. Drowning is among the leading causes of accidental death; about 400 people accidental drown every year. Some people survive drowning events but many are left with severe life changing injuries. Since 2012 WFRS has attended over 140 incidents involving water. During the same period there have been at least 8 drownings within our county. Fewer people have died in house fires during the same time frame. Water risks across the county range from the obvious such as;

- Rivers and canals
- Lakes
- Weirs
- Water parks and reservoirs

To the not so obvious;

- Flood culverts
- Quarries
- Fords across rivers
- Balancing ponds

Nationally almost two in every three fatalities happen at inland waters such as the ones in our county. Added to these stark figures almost half of all fatal incidents the person had no intention of entering the water and a quarter had alcohol in their system.

In March 2016 the National Water Safety Forum (NWSF) released a 10-year strategy outlining five main areas they intend to work on with the ambition to reduce the number of drowning's in the UK by 50% by 2026. There are a couple of areas which the Fire Service are working to directly support;

- Every community with water risks should have a community –level risk assessment and water plan.
- Increase awareness of everyday risks in, on and around water.

During the last two years, to increase awareness and safety within the county WFRS have been utilising the CFOA drowning prevention toolkit and have actively promoted water safety in our county. The Service has focused on identified at risk groups and areas using social media campaigns, direct engagement and local events.

There has also been extensive partnership working with organisations such as Royal Life Saving Society UK, and the Drowning Prevention Charity.

In England, fire and rescue authorities do not have a statutory duty to respond to water rescue or flooding incidents. However as part of the planning for these foreseeable risks, the Service has the capability to respond to life risk in water and will work to reduce and prevent risk and accidental loss of life.

In December 2016 it was agreed by the Safer Warwickshire Partnering Board that WFRS lead a piece of work, and working with partners, to look in detail at how Warwickshire tackles and reduces the risk of drowning in our communities.

### **Flood Risk**

Warwickshire is subject to flood risk from a variety of sources that include main rivers, ordinary watercourses, surface water and reservoir inundation. This risk is managed through the work of WCC Flood Risk Management Team.

Assessment of current flood risk is conducted by partners of the Warwickshire Local Resilience Forum (WLRFF) who consider the likelihood and potential impact of flooding events from all sources. This assessment forms part of the Local Resilience Forum Community Risk Register and identifies both Major Local Fluvial Flooding and Major Reservoir Dam Failure as Medium to High risks within Warwickshire.

Flood response planning in Warwickshire is led by the Coventry, Solihull and Warwickshire Resilience Team (CSW RT) and is coordinated with all partners of the Local Resilience Forum to produce a multi-agency plan. This document outlines agency responsibilities, monitoring resources, local arrangements and specific areas of risk to ensure an appropriate and coordinated response is delivered across the County in the event of widespread flooding



In addition to this, there are upcoming developments in North Warwickshire and Stratford District, which will also be assessed and, if necessary, make further Section 106 funding requests to developers.

## X. Future Risks and Opportunities

Having detailed current WFRS policy and practice in the preceding sections of this report, this section aims to identify changes that might potentially affect WFRS' future activities. The ever-changing context in which WFRS operates presents it with a number of challenges and threats, as well as opportunities.

This section provides insights into factors that may impact WFRS activity in the short and long term future, such as demographic changes, organisational and legislative changes, technological advancements and environmental factors.

The issues described are categorised into **PESTELO** categories: **p**olitical, **e**conomic, **s**ocial, **t**echnological, **e**nvironmental, **l**egal and/or **o**rganisational. The overall purpose of this section is to allow WFRS to take into account these various factors when planning for the future.

Risk or Issue	Description	Potential impact on WFRS	Risk category (PESTELO)	Impact Level and Type
Ageing population	<p>A population is said to be ageing if its median age is rising. This phenomenon is mainly caused by an increasing life expectancy (lower mortality) and decreasing birth rate (lower fertility). According to ONS projections the median age in the United Kingdom is set to rise from 39.5 years old in 2010 to 41.8 years old in 2030.</p> <p>Additionally, the number of people aged 65 and over in the UK is estimated to almost double between 2010 and 2030 - from 10 million to 19 million.</p> <p>Although life expectancy has been rising quite rapidly, healthy life expectancy has not been increasing at the same pace. This gap between mortality and morbidity (incidents of disease and disability) has created a high demand on health services<sup>6</sup>, and this demand is likely to increase as the elderly population grows.</p> <p>As the number of older people rises, it is also likely that the number of older people living on their own will rise. In 2014 in the UK, there were 3.5 million single occupant households inhabited by people aged 65 and over, the majority of which were female. In the 65-74 age group</p>	<p>Older people are amongst the most vulnerable groups to fire.</p> <p>In Great Britain, the average fire fatality rate is 5 persons per million of population. For older people, the fatality rate from fire is higher than average. The highest such rate is seen in people aged 80 and over, who are over 4 times more likely to die in a fire than others and accounted for 21% of fire fatalities in 2014.</p> <p>More than half of the fatalities from Accidental Home Fires in GB were aged 65 and over, and as previously noted AHFs are the deadliest of all fire categories, accounting for 2/3rds of all fire fatalities.</p> <p>Possible explanations for this trend include the mobility issues associated with older age which would make it difficult to react quickly to, or to escape from a home fire.</p> <p>There are also certain mental health issues that come with old age - such as dementia - which would significantly increase both the risk of accidentally starting a fire, and that of dying from a fire.</p> <p><u>Injuries in the home</u></p> <p>The elderly are particularly prone to having accidents in the home and in the UK 1 in 3 adults aged over 65 suffers <i>at least</i> one fall per year in their home. There are several reasons why this is the case such as chronic health disorders that lead to dizziness (e.g. low blood pressure) as</p>	Social	High and negative impact on service demand; the ageing population will place pressure on public services such as WFRS.

<sup>6</sup> See [http://www.parliament.uk/documents/commons/lib/research/key\\_issues/Key-Issues-The-ageing-population2007.pdf](http://www.parliament.uk/documents/commons/lib/research/key_issues/Key-Issues-The-ageing-population2007.pdf)

Risk or Issue	Description	Potential impact on WFRS	Risk category (PESTELO)	Impact Level and Type
	<p>62% were female and this increased to 73% in the 75 and over category. This category of people is at risk of being socially excluded, isolated and not adequately supported to cope with old age.</p> <p><b>Warwickshire has an ageing population and as of 2014, approximately a quarter of its population was aged 60 and over. The largest proportion of people aged 60+ is based in the Stratford-on-Avon district.</b></p>	<p>well as the vision impairments and muscular weakness associated with old age<sup>7</sup>.</p> <p>As the number of elderly people in Warwickshire's community increases, WFRS must aim <b>to work more with partners</b> to reduce their risk to accidental injuries in their home.</p> <p>The ageing population means that the level of vulnerability within Warwickshire's community will increase. This means that current methods employed by WFRS to lower the risk of fatalities and injuries will need to evolve to accommodate this growing risk.</p>		
<b>Population growth and housing developments</b>	<p>The population in Warwickshire in 2022 is projected to be 580,000, and is expected to grow to 624,000 by 2037. This is based on assumptions surrounding factors such as birth rates, death rates and the rate of migration into Warwickshire<sup>8</sup>. This population growth will need to be accommodated by a concurrent growth in the housing stock in Warwickshire.</p> <p>The Coventry and Warwickshire Joint Strategic Housing Market Assessment (SHMA) has identified a need for a minimum of 45,900 new homes to be built across Warwickshire between 2011 and 2031; an equivalent of 2,295 per annum<sup>9</sup>.</p>	<p><b>The 50+ age group is expected to experience the highest population growth in Warwickshire. With the largest increase expected to be in the number of people aged 85 and over.</b></p> <p>Population growth thus relates to Warwickshire's ageing population, and is likely to impact the demand on health services as well as that on fire and rescue authorities as previously detailed.</p> <p>Population growth and a subsequent increase in the number of houses in Warwickshire would increase the risk of Accidental Home Fires (potentially higher demand for WFRS services).</p> <p>An additional pressure created by the increase in the</p>	<b>Economic Social</b>	<p>Ambiguous Impact on service demand; although the need for public services is likely to rise as the population increases, it is how proactively this is managed that will determine the overall</p>

<sup>7</sup> NHS choices

<sup>8</sup> Quality of Life Report, Warwickshire Observatory

<sup>9</sup> CWLEP Strategic Economic Plan 2014

Risk or Issue	Description	Potential impact on WFRS	Risk category (PESTELO)	Impact Level and Type
		<p>housing stock is that associated infrastructure will need to be expanded. This would include such things as the installation of fire hydrants in new developments to ensure ample water supply for fighting fires.</p> <p>At present, the Community Infrastructure Levy (detailed in section 4B of this report) provides local authorities with an additional source of income from developers to fund infrastructure development. This serves as an opportunity for WFRS and partner agencies to improve community safety through, for example, installing sprinklers in buildings and safety features in the homes of the elderly.</p> <p>WFRS is presently engaging with Rugby Borough Council in response to their local plan which will produce 12,400 new dwellings between 2011 and 2031. The Service has assessed the impact of this and is considering how it may need to change its response model to adapt to these changes. This would be achieved through requesting funding from the developers through Section 106 of the Town and Country Planning Act 1990.</p> <p>However, additional measures will have to be taken by WFRS and other statutory agencies in Warwickshire to enable people to live independently as our population grows and ages.</p>		outcome.
<b>Unemployment Poverty and Deprivation</b>	<p><i>Unemployment:</i> Unemployment rates can be measured by the number of individuals claiming Job Seekers Allowance (JSA) - the claimant count.</p>	<p>Unemployment, poverty and deprivation are all factors that are likely associated with anti-social behaviour (ASB) and crime.</p> <p>Anti-social behaviour is defined as behaviour that causes or will cause harassment, distress or alarm to people external</p>	<b>Economic Social</b>	Ambiguous impact on service demand: Unemployment, poverty and deprivation all increase demand

Risk or Issue	Description	Potential impact on WFRS	Risk category (PESTELO)	Impact Level and Type
	<p>In June 2014, there were 4,783 individuals on JSA in Warwickshire. The highest proportion of working age individuals claiming JSA (2.7%) reside in the Nuneaton and Bedworth Borough.</p> <p>Of the total number of unemployed Warwickshire residents, 1,320 have been claiming JSA for more than a year and are thus classed as being “long-term unemployed,” half of them live in Nuneaton and Bedworth.</p> <p>The national average rate of youth unemployment is 3.8%. In Warwickshire, all boroughs and districts fall below this average, with the exception of Nuneaton &amp; Bedworth, in which 5% of 18 – 24 year olds were unemployed in June 2014.</p> <p>There is a link between unemployment and poverty/deprivation – specifically the link is with long term unemployment.</p> <p><i>Poverty and Deprivation:</i> The number of children living in poverty is counted as those living in a household receiving out of work benefits or tax credits where household income is less than 60% the median income.</p>	<p>to the perpetrator’s household. A type of ASB related to WFRS activity is deliberate fire setting</p> <p>In Nuneaton &amp; Bedworth, the borough with the highest levels of unemployment, poverty and deprivation, the crime and ASB levels are also the highest within the County. ASB within Nuneaton &amp; Bedworth borough accounts for approximately 33% of all reported incidents across the County. Similarly, crime data from 2013 – 2014 for the Warwickshire County indicates that the Nuneaton &amp; Bedworth area has the highest crime rate – an average of 24 incidents per day. The types of crime included are: violence against the person, domestic and other burglary and vehicle crime<sup>10</sup>.</p> <p>The annual fire kills campaign identified several groups that are most at risk to fire. Amongst these, and more specifically, within the ‘older people’ and ‘single parent’ groups, there is a bias towards more deprived individuals. One of the plausible explanations for this is poor housing associated with deprivation.</p> <p>Another group vulnerable to home fires which may be linked to unemployment and poverty is drug and alcohol abusers. A plausible explanation for their vulnerability to fire is their reduced capacity to respond. It may also be the case that they are unconscious during a home fire and thus unable to react.</p> <p>Unemployment levels within Warwickshire have been steadily decreasing since they peaked at 12,000 JSA</p>		<p>for the services of WFRS and partner agencies. There is currently a downward trend in unemployment and many initiatives in place aimed at improving the lives of Warwickshire’s residents. However, whether or not these factors drive down demand for public services is contingent upon factors such as future employment trends and continued funding towards these initiatives. Hence, it is difficult to predict the impact on WFRS activities caused by unemployment, poverty and deprivation.</p>

<sup>10</sup> Quality of Life Report, Warwickshire Observatory

Risk or Issue	Description	Potential impact on WFRS	Risk category (PESTELO)	Impact Level and Type
	<p>Based on 2011 figures, 13.5% of children in Warwickshire are classified as living in poverty. This is well below the national average of 20.1%. However, in the Nuneaton &amp; Bedworth borough the percentage of children who were living in poverty in 2011 was higher than average and much closer to the national average, at 19.3%.</p>	<p>claimants in 2009. Coupled with the local authority initiatives in place (such as the Priority Families Programme detailed in the following section), which are targeted at curbing ASB, crime and improving outcomes for deprived families in Warwickshire, the likely outcome is for demand on WFRS to gradually decline, at least for incidents that are in a way socioeconomically determined - such as deliberate fire setting.</p>		
<p><b>Priority Family Programme</b></p>	<p>This programme is based on a central government initiative to support families in need to achieve independence and stability.</p> <p>Warwickshire County Council has adopted a multi-agency approach to delivering this programme which focuses heavily on early intervention.</p> <p>WCC is a participating member of the pilot programme for Phase 2 which begins in April 2015.</p>	<p>In Warwickshire, there are <b>991</b> priority families involved in this programme.</p> <p>Part of this programme deals with children who have engaged in antisocial behaviour – some of which have been involved in deliberate fire setting – and the objective of the programme is to reduce these types of behaviour.</p> <p>The highest percentage of priority families reside in the Nuneaton &amp; Bedworth borough (48%). As previously noted, the overall levels of unemployment, deprivation, ASB and crime are also highest in Nuneaton &amp; Bedworth, hence the programme is ideally placed to deal with these issues.</p> <p>The ongoing work of this programme is likely to have a positive impact on WFRS by, amongst other outcomes, reducing the levels of deliberate fire setting within the County.</p>	<p><b>Political Economic Social Organisational</b></p>	<p>High and positive impact on service demand</p>
<p><b>Continuing Austerity</b></p>	<p>According to a National Audit Office report published in November 2015, funding for standalone fire and rescue authorities fell on average by 28% in real terms between</p>	<p>64% of the WFRS net revenue budget is spent on firefighter pay rather than on back office and support functions. This means that budget cuts have a direct impact on staffing levels and the provision of an effective service to the</p>	<p><b>Political Economic Organisational</b></p>	<p>High and negative impact on service</p>

Risk or Issue	Description	Potential impact on WFRS	Risk category (PESTELO)	Impact Level and Type
	<p>2010/11 and 2015/16. This compares with a real terms cut in local authority spending power over the period 2009/10 to 2015/16 of an average of 25%.</p> <p>Whilst DCLG in December 2015 published a Provisional Local Government Funding Settlement for the period 2016/17 to 2019/20, there are many other factors which are creating instability and uncertainty within the sector. These include:</p> <ul style="list-style-type: none"> <li>the recent referendum result to leave the EU</li> <li>the implications of the Home Office taking over responsibility for Fire and Rescue, and in particular the focus on blue light collaboration</li> <li>the Police and Crime Bill giving permissive powers for Police and Crime Commissioners to take on governance of Fire and Rescue Services</li> <li>the implications of the vesting of a West Midlands Combined Authority</li> </ul> <p>All of these factors mean that there will be ongoing uncertainty for WFRS. In addition, the County Council is in the process of formulating its OOP 2020 savings plan which will include further savings for WFRS for the period 2017/18 to 2019/20.</p>	<p>public.</p> <p>According to the National Audit Office, Fire and Rescue Services' savings have come predominantly from reducing staff costs. Fire and rescue authorities have a duty to make provision to respond to emergencies, informed by their assessment of local risk. In this context, authorities have protected appliances and fire stations but reduced numbers of firefighters. Authorities have largely maintained appliances and stations as they are key to maintaining response standards and valued by the public.</p> <p>Reductions in operational resilience have a negative impact on the resources WFRS is able to provide to support major incidents, including those involving terrorism, at a regional and national level.</p> <p>Despite reductions in funding, and reductions in the number of firefighters authorities are sending to certain incidents, the number of fires and casualties has continued its long-term downward trend. WFRS is no exception to this.</p> <p>WFRS is required to deliver savings of approximately £2.4 million between 2014 and 2018 and implementation of its Transformation Programme to deliver this is ongoing.</p> <p>The County Council is currently in the process of preparing its One Organisation Plan for the period 2017/18 to</p>		<p>demand and service delivery. WFRS has so far managed to absorb budget cuts through making efficiency savings and taking an innovative approach to service delivery. However, if these cuts continue at their current rate there will be a point at which service delivery may suffer as a consequence.</p>

Risk or Issue	Description	Potential impact on WFRS	Risk category (PESTELO)	Impact Level and Type
		2019/20. Decisions on further savings for WFRS are yet to be made but it is highly probable that further savings will be required.		
<b>The Smoke and Carbon Monoxide Alarm Regulations (2015)</b>	<p>This legislation went into force in October 2015 as part of the Energy Act of 2013 and specifically requires private landlords to:</p> <ul style="list-style-type: none"> <li>• Install a smoke alarm on every story of the property that has at least one room used as accommodation - including bathrooms</li> <li>• Install a carbon monoxide alarm in any room used as accommodation containing a solid fuel burning device (e.g. wood and coal burners)</li> </ul> <p>This legislation excludes Homes in Multiple Occupation and Social housing for which the installation of working smoke alarms is covered in existing legislation.</p> <p>Under these laws, the landlords are also required to ensure that the alarms are functioning properly at the start of each new tenancy, or risk a penalty of up to £5,000 by the local council.</p>	<p>Central government funding has so far been released to a number of locations including the West Midlands and has been distributed to local fire authorities such as WFRS.</p> <p>WFRS is currently identifying the best strategy for smoke alarm distribution to private landlords in Warwickshire.</p>	<b>Political Legal Organisational</b>	High and Positive impact on service delivery: as detailed in section 4A of this report, smoke alarms lead to earlier fire discovery which means that fire and rescue can attend an incident sooner and the damages from fire mitigated.
<b>Joint Strategic Needs</b>	The Joint Strategic Needs Assessment (JSNA), first published in March 2012,	Several identified priority needs groups relate to WFRS activity:	<b>Political Economic</b>	High and Positive impact on service



Risk or Issue	Description	Potential impact on WFRS	Risk category (PESTELO)	Impact Level and Type
<b>Assessment Priority Needs</b>	<p>identifies current and future health and well-being needs of local authority areas to be met collectively by local authorities, the NHS and other organisations. It is a statutory requirement for Warwickshire County Council (and all other two-tier authorities) to produce a JSNA which is reviewed periodically every 3 years - with the most recent review having been published in early 2015.</p> <p>The JSNA has identified the needs of Warwickshire's residents and prioritised them in terms of several criteria:</p> <ul style="list-style-type: none"> <li>• The number of persons in need</li> <li>• The severity of the need</li> <li>• Whether the need worsens over time</li> <li>• Whether the need in Warwickshire is higher than other regions nationally</li> <li>• Whether early intervention would impact future need</li> <li>• The scale of inequality across the County in terms of the need</li> <li>• Estimated cost</li> </ul>	<ol style="list-style-type: none"> <li>1. Vulnerable young people</li> <li>2. Adults and children with mental health issues</li> <li>3. Substance and alcohol abusers</li> <li>4. Dementia sufferers</li> </ol> <p>As previously noted, individuals in some of these groups are more at risk from fire and some (e.g. vulnerable young people) may be more at risk of becoming engaged in anti-social behaviours such as deliberate fire setting.</p> <p>WFRS can play an important role in delivering wider community objectives. Firefighters are able to leverage their reputation within the community as trusted individuals and harness their ability to reach the most difficult to reach members of the community in order to help meet JSNA needs. This is done through, for example, education of vulnerable young people on the dangers of ASB, through home safe and well checks for the elderly and early stage dementia patients living independently.</p>	<b>Social Legal</b>	demand; WFRS and partner agencies taking a proactive approach towards supporting and protecting the most vulnerable people will improve outcomes for Warwickshire's residents and may drive down future incident levels.
<b>Climate change</b>	Climate change has led to changing weather patterns.	Changes in weather patterns have increased incidents of flooding, for which rescue services are provided by Fire and Rescue (as discussed in the 'Special Services' and 'Risk Management' sections of the Profile).	<b>Environmental Organisational</b>	High and negative impact on incident levels; climate change is likely to drive up demand

Risk or Issue	Description	Potential impact on WFRS	Risk category (PESTELO)	Impact Level and Type
		<p>They have also led to periods of warmer and drier weather which tend to increase the incidence of outdoor fires.</p> <p>According to the CFOA, new processes, training and equipment are being developed in response to this threat. WFRS has invested into such things as water rescue training for firefighters and specialist equipment in order to build its response capacity.</p>		for WFRS special services.
HS2	The High Speed rail link project (HS2) will involve the construction of underground rail tunnels and rail bridges/viaducts at several locations within the county. Construction work along the route of the rail line will begin in 2017/2018 and last at least 4 years.	<p>Contractor traffic flow to and from a number of simultaneous HS2 construction sites within the county will cause significant peak hour congestion on arterial traffic routes. This may be further compounded by commuters using 'rat runs' through rural areas.</p> <p>WFRS may need to review its capabilities to meet any new risks presented by HS2 infrastructure (e.g. underground rail tunnels and viaducts).</p> <p>WFRS will seek early engagement with the HS2 project team, alongside the other blue light agencies, in order to consider and plan the impacts that the project will have on the organisation and the local risk profile.</p>	<b>Organisational Economic Technological</b>	<p>Medium negative impact on demand levels caused by a rise in RTC incidents.</p> <p>High and negative impact on fire engine response times and normal day to day WFRS transport logistics in some areas of the county.</p> <p>Medium and negative impact on organisational capacity to meet Fire Safety, and Operational Planning for the HS2 infrastructure, and FOI and media interest fuelled by community opposition to HS2.</p>

## **XI. Monitoring and Review**

Any changes to the risk in Warwickshire will be monitored closely at a local level through the Local Risk Profiles which have been developed for each of the station clusters. Proactive action will be taken if and when any emerging trends are identified.

A complete analysis to inform a new version of the Warwickshire Risk Profile will be completed at an appropriate time in readiness to inform the next IRMP for WFRS.

## **XII. Summary and Conclusion**

Forming the evidence base for the IRMP, this document analysed attended incident levels by WFRS between January 2013 and December 2015. Divided into 5 main categories (RTC, Primary Fires, Secondary Fires, False Alarms and Special Services), current and emerging trends were identified where possible. Recommendations were made, before an assessment in the latter section of the broader environment (PESTELO), identifying emerging risks that may affect the Service in the years ahead.

Warwickshire remains a safe place to reside, with incident levels remaining beneath or in line with national levels across the Service. Between January 2013 and December 2015, incident levels have increased over the three year period analysed in this profile, in part due to policy changes and increases in reporting. Increases also reflect the evolving role of WFRS in offering greater social value, responding to a wider range of incidents.

The central themes of this risk profile are as follows:

- WFRS continues to respond appropriately to service demand, responding and adapting flexibly to evolving pressures;
- The Service adopts an expansive proactive and preventative agenda, engaging with communities across the county to raise awareness and appreciation of personal resilience and safety;
- The Service continues to work successfully with a range of agencies, such as the Police and Local Authorities, working in partnership where possible;
- Protocols and policies continue to be reviewed, reflecting changing need and demand, namely the Call Challenge Policy and HFSCs.

Recognising that the Service does not operate in isolation, WFRS responds appropriately to broader challenges, notably pressures of austerity and the increasing need to operate with greater efficiency and less resources. Looking ahead, uncertainty will remain, with implications and consequences of the June 2016 European Referendum, Home Office agendas regarding the collaboration of Blue Light Services and the savings targets that WFRS will be expected to achieve as part of the WCC One Organisational Plan 2020 still to be determined.

## Disclaimer

This report has been prepared by Warwickshire Observatory, on behalf of WFRS, with all reasonable skill, care and diligence. We accept no responsibility whatsoever to any third parties to whom this report, or any part thereof, is made known. Any such party relies on the report at their own risk.

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