

# COMMUNITY RISK MANAGEMENT PLAN 2021-2025

## CRMP RISK REVIEW 2020



HEREFORD & WORCESTER  
**HWFR**  
FIRE AND RESCUE SERVICE

# CRMP Risk Review 2020

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*The CRMP Risk Review is a technical document providing background information and supporting evidence for the Community Risk Management Plan 2021-2025. All fire and road traffic collision incident data used is held by the Performance and Information Team, Service Support Directorate.*

*The Risk Review should be read in conjunction with the [CRMP Risk Review 2018](#), the [Community Risk Management Plan 2021-25](#) and its supporting risk documents available on the Service website. The Review is also supported by a series of Station Risk Profiles, which provide more local detail about risks in each of the Service's 25 fire stations areas, also available on the Service website.*

## 1. Introduction

- 1.1. The Community Risk Management Plan 2014-2020 (the CRMP) was published in 2014. It was supported by a Strategic Risk Review written in 2012, which was updated in April 2014 and April 2018. The Review examined the major life risk incidents the Fire and Rescue Service has a statutory responsibility to address – fires and road traffic collisions – and presented a spatial representation of risks across Herefordshire and Worcestershire. The Review also supported the development of a Fire Cover Review, which was published as part of the 2014-20 CRMP.
- 1.2. Data used in the 2012, 2014 and 2018 Reviews covered the period January 2007 to the end of March 2017. The new CRMP Risk Review 2020 updates the data to the end of March 2020.
- 1.3. The Review uses a sophisticated fire risk model successfully used by a number of other Fire and Rescue Services including Cumbria and Greater Manchester Fire and Rescue Services.
- 1.4. The model involves an analysis of fires and associated casualties alongside the Index of Multiple Deprivation (IMD). The IMD is a measure of the relative deprivation between different areas, which enables the relative risks of fire among different groups in society and across geographical areas to be determined. The 2020 Review uses the 2019 IMD, which is the latest version available.
- 1.5. The model enables the results of the analysis to be mapped across the Service area, providing a visual representation of fire risk and highlighting where prevention and protection activities should be focused for best effect. The model is also flexible and can be updated with new data on a regular basis, which enables detailed evaluation of whether or not the Service's prevention and protection activities are having the desired effect in reducing risk. The model can also be integrated with information about household types and lifestyle factors, such as Experian's Mosaic Public Sector<sup>1</sup> household classifications. This provides a further level of sophistication to help to identify which groups of people in which areas are likely to be at most risk, and will support where and how prevention activities are targeted.
- 1.6. The results from the model provided a basis for assessing the impact of changes to fire cover in the 2012 Fire Cover Review. By banding the results into high, medium and low fire risk areas and mapping them, the impact of different fire cover scenarios were assessed against attendance standards for life risk incidents. The 2020 Review updates the risk maps, which will help to support future fire cover reviews.
- 1.7. The final element of the 2012 Review looked at the location of road traffic collisions (RTCs) across the two counties and the incidence of serious injuries and fatalities in those RTCs. Using the Service's risk rating matrix, the analysis provides a risk rating for each fire station ground, which was then mapped to provide a visual representation of RTC risk across the two counties. The 2020 Review updates these maps.

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<sup>1</sup> Mosaic Public Sector is a sophisticated consumer classification model developed by the consumer credit and market research company Experian as a way of categorising lifestyles and behaviours.

## 2. The Fire Risk Model

- 2.1. The Fire Risk Model combines four main risk elements representing fire risk and societal risk:
- accidental dwelling fire rate
  - accidental dwelling fire casualty rate
  - accidental non-dwelling fires (i.e. other building fires)
  - 2019 Index of Multiple Deprivation score
- 2.2. In the above list, the term 'dwelling' means a property that is a place of residence and includes houses, flats, maisonettes, bungalows, houses in multiple occupation and mobile homes/caravans. The term 'non-dwelling' relates to other buildings, such as hotels, hostels, care homes offices, shops, factories, warehouses, restaurants, cinemas, public and religious buildings, and hospitals.
- 2.3. Each of the four elements is weighted to provide emphasis on casualties and deprivation, which helps to identify those groups and areas more likely to suffer an accidental fire resulting in injury. The weightings are informed by the conclusions of the Entec Risk Assessment Toolkit<sup>2</sup> report, which presented ways of categorising risk according to how tolerable they were to the individual and to society as a whole, and included evidence based risk weightings.
- 2.4. A key feature of the model is the ability to map the data at a neighbourhood level. This is achieved by combining the fire incident data with 2019 IMD data, which is plotted at the Lower-layer Super Output Area<sup>3</sup> (LSOA) level to show the relative risks across all areas in the two counties. The area of Herefordshire and Worcestershire is divided into 480 LSOAs, and the model enables risk scores to be calculated for each individual LSOA. There are 116 LSOAs across Herefordshire and 364 in Worcestershire.
- 2.5. The 2020 Review adds in new fire incident data for 2017/18 to 2019/20, so that the model covers eleven years from 2009/10 to 2019/20. This is averaged over three year periods to ensure that the final risk classification for each area is not adversely affected by annual variations or 'spikes.' It also helps to identify how the levels of risk across the two counties changes over time.
- 2.6. The formula can be expressed as follows:



<sup>2</sup> 'Development And Trial Of A Risk Assessment Toolkit For The UK Fire Service' by Michael Wright, Entec UK Ltd. for Home Office Fire Research and Development Group, FRDG Publication Number 5/98 © Crown Copyright 1998

<sup>3</sup> A Lower-layer Super Output Area is a small geographical area containing a neighbourhood of around 1,500 people. It is often used in statistical models to provide detailed information about the social and economic characteristics of local areas.

2.7. The strong focus on risk to life is reflected in the 'x4' weighting applied to the accidental dwelling fire casualty rate, while a 'x2' weighting for the Index of Multiple Deprivation reflects the link between deprivation and fire. The following tables provide details of the risk tolerances<sup>4</sup> applied to each of the fire-related elements of the risk model. These are organised into bands based on the Entec Risk Assessment Toolkit Report weightings, which are then added together to provide an overall risk score.

**Table 1: Accidental Dwelling Fire Rate (per LSOA)**

<b>Accidental Dwelling Fire Rate (per LSOA)</b>			
<b>Calculation</b>	<b>Description</b>	<b>Banding</b>	<b>Risk score</b>
<u>no. of dwelling fires</u> no. of dwellings (averaged over 3 years)	Annual rate of fire per no. of dwellings:		
	- greater than 1 in 200	Greater than 0.005	12
	- between 1 in 200 and 1 in 300	0.005 to 0.003334	10
	- between 1 in 300 and 1 in 400	0.003333 to 0.0026	8
	- between 1 in 400 and 1 in 600	0.0025 to 0.001667	6
	- between 1 in 600 and 1 in 800	0.001666 to 0.00125	4
	- less than 1 in 800	Less than 0.00125	2

**Table 2: Accidental Dwelling Fire Casualty Rate (per LSOA)**

<b>Accidental Dwelling Fire Casualty Rate (per LSOA)</b>			
<b>Calculation</b>	<b>Description</b>	<b>Banding</b>	<b>Risk score</b>
<u>no. of casualties/fatalities</u> no. of Residents (averaged over 3 years)	Annual rate of fire casualty per no. of residents:		
	- greater than 1 in 1000	Greater than 0.001	12
	- between 1 in 1000 and 1 in 1500	0.001 to 0.0006667	10
	- between 1 in 1500 and 1 in 2000	0.0006666 to 0.0005	8
	- between 1 in 2000 and 1 in 3500	0.0005 to 0.0002857	6
	- between 1 in 3500 and 1 in 5000	0.0002856 to 0.0002	4
	- less than 1 in 5000	Less than 0.0002	2

<sup>4</sup> for example, in the Accidental Dwelling Fire Rate table, if the LSOA has fewer than 1 in 800 dwelling fires per year it is considered to be more 'tolerable' to society than if the LSOA has more than 1 in 200 dwelling fires per year. This is reflected in the risk score assigned to the banding.

**Table 3: Accidental Non-Dwelling Fires (per LSOA)**

<b>Accidental Non-Dwelling Fires (per LSOA)</b>			
<b>Calculation</b>	<b>Description</b>	<b>Banding</b>	<b>Risk score</b>
Frequency of accidental primary fires occurring in buildings other than dwellings (3 year period)	Number of accidental primary fires in buildings other than dwellings:		
	- 9 or more	9 or more	12
	- less than 9	Less than 9	10
	- less than 6	Less than 6	8
	- less than 4	Less than 4	6
	- less than 3	Less than 3	4
	- less than 2	2 or less	2

2.8. The fourth element of the model, the Index of Multiple Deprivation<sup>5</sup> score, provides data on relative deprivation levels for each of the 480 LSOAs across Herefordshire and Worcestershire. National and local research has demonstrated that there is a strong link between the rate of dwelling fires and deprivation, such that where the rate of dwelling fire is high, the rate of deprivation is also likely to be high. The scores in the table are based on the actual scores for each LSOA as presented in the 2019 Indices of Deprivation for England.

**Table 4: 2019 Index of Multiple Deprivation (per LSOA)**

<b>2019 Index of Multiple Deprivation (per LSOA)</b>			
<b>Calculation</b>	<b>Description</b>	<b>Banding</b>	<b>Risk score</b>
IMD 2019 Score	Score greater than 36.15	Greater than 36.15	12
	Score between 36.15 and 24.70	Greater than 24.69	10
	Score between 24.69 and 17.65	Greater than 17.64	8
	Score between 17.64 and 12.24	Greater than 12.23	6
	Score between 12.23 and 7.75	Greater than 7.74	4
	Score less than 7.74	Less than 7.74	2

<sup>5</sup> Source: [UK Government Official Statistics: English indices of deprivation 2019](#)

- 2.9. Adding the scores for each risk element together, including weightings, gives a final risk score of somewhere between 16 (minimum – i.e. LSOAs with the least fire risk) and 96 (maximum – i.e. LSOAs at most fire risk). The actual final scores when the formula was applied to the 480 LSOAs in Herefordshire and Worcestershire range between 16 and 78 for the latest period measured, 2017/18 to 2019/20. The highest score of 78 was reached in the Blakebrook & Habberley South area of Kidderminster in Wyre Forest district), while 53 LSOAs (11 per cent) gained the lowest score of 16.
- 2.10. The highest recorded risk LSOA in the two counties over the last five years was in part of the Cathedral ward in Worcester,, which had a high risk score of 86 for the 2015/16 – 2017/18 period. This has now fallen to a medium risk score of 48 for 2017/18 – 2019/20. How fire risk has changed over the last five years is discussed further in Section 6 of this report.

### **Using Lower-layer Super Output Areas (LSOAs)**

- 2.11. LSOAs are subdivisions of electoral Wards in all local authority areas of England. They provide a useful basis for statistical comparison because they are generally similar in terms of population size. On average they contain around 1,500 residents or 650 households.
- 2.12. There are many advantages of presenting risk data at this level:
- it allows comparison of areas of a similar size nationally,
  - it allows pockets of deprivation to be identified, which can be missed when looking at a Ward or District level,
  - the boundaries of LSOAs are robust and unlikely to change, allowing trend analysis and comparison over time,
  - with relatively small numbers of households, prevention and other fire safety work can be organised at a manageable level, and
  - local authorities and other public service partners also present information at the LSOA level, which enables data over comparable areas to be shared.

### 3. Overall LSOA risk scores and fire risk grades for 2017/18 – 2019/20

- 3.1. Having assigned a risk score to each LSOA in the two counties, it is appropriate to categorise the scores into bands or grades to demonstrate the relative risks. In common with a number of other Fire and Rescue Services, the scores have been banded into High, Medium and Low grades, as shown in the table below:

**Table 5: LSOA Risk Scores and Fire Risk Grades**

LSOA Risk Score	Fire Risk Grade
65 and Above	High
34 - 64	Medium
33 and below	Low

- 3.2. Applying these gradings to all 480 LSOAs across Herefordshire and Worcestershire reveals that there is a low risk of fire across most areas of the two counties. The data shows that over the last three years 2017/18 to 2019/20, there were 309 LSOAs rated as having a Low risk of accidental dwelling fire, representing 64 per cent or almost two-thirds of all LSOAs. The data also shows that 162 LSOAs (34 per cent) were rated as Medium risk, and just 9 LSOAs (2 per cent) were rated as High risk.
- 3.3. By taking the full range of data between 2009/10 and 2019/20 and banding it into three year periods to smooth out any 'spikes', a trend profile can be established. This provides an opportunity to follow how levels of fire risk have changed over time, and will help in analysing how far the Service's prevention and protection activities are having the desired effect in reducing fire risk. Table 6 sets out how fire risk has changed over the eleven year period 2009/10 to 2019/20 and Figure 1 shows the changes over the nine three-year bands.

**Table 6: LSOA Fire Risk Profiles 2009/10 – 2019/20**

Fire Risk Profile	Score 2009/10 - 2011/12		Score 2010/11 - 2012/13		Score 2011/12 - 2013/14	
	Risk Score	No. of LSOAs	Risk Score	No. of LSOAs	Risk Score	No. of LSOAs
High	1,456	20	1,006	15	930	17
Medium	8,010	178	8,032	186	7,936	182
Low	6,806	282	6,814	279	6,898	281
<b>Total risk score</b>	<b>16,272</b>		<b>15,852</b>		<b>15,764</b>	



Table 6: continued

Fire Risk Profile	Score 2012/13 - 2014/15		Score 2013/14 - 2015/16		Score 2014/15 - 2016/17	
	Risk Score	No. of LSOAs	Risk Score	No. of LSOAs	Risk Score	No. of LSOAs
High	568	10	492	9	332	5
Medium	7,284	164	6,886	155	6,688	158
Low	7,394	306	7,528	316	7,662	317
<b>Total risk score</b>	<b>15,246</b>		<b>14,906</b>		<b>14,682</b>	

Table 6: continued

Fire Risk Profile	Score 2015/16 – 2017/18		Score 2016/17 - 2018/19		Score 2017/18 - 2019/20	
	Risk Score	No. of LSOAs	Risk Score	No. of LSOAs	Risk Score	No. of LSOAs
High	578	8	482	7	638	9
Medium	6,762	162	6,948	166	6,682	162
Low	7,506	310	7,416	307	7,368	309
<b>Total risk score</b>	<b>14,846</b>		<b>14,846</b>		<b>14,688</b>	

Figure 1: Total Risk Scores in 3-year bands with trendline

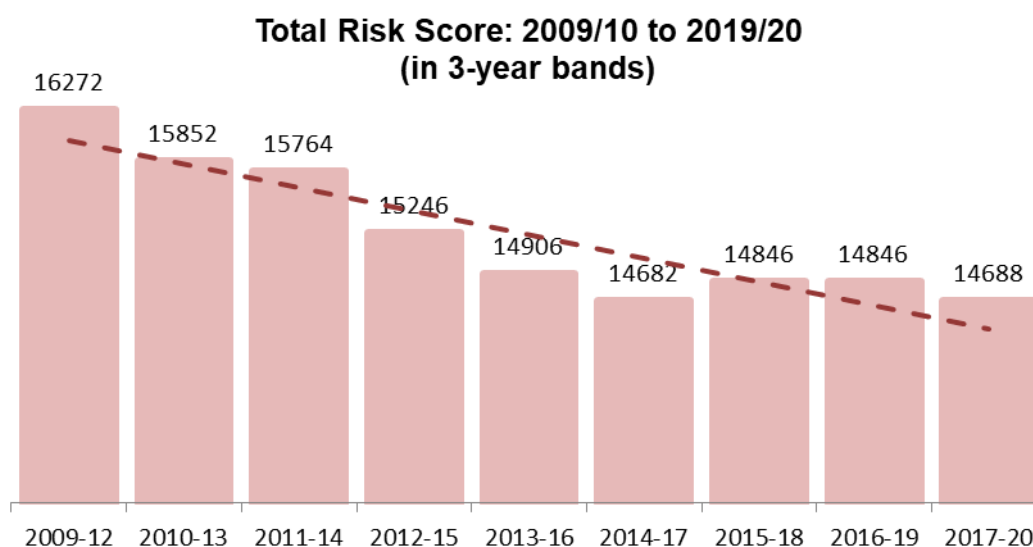
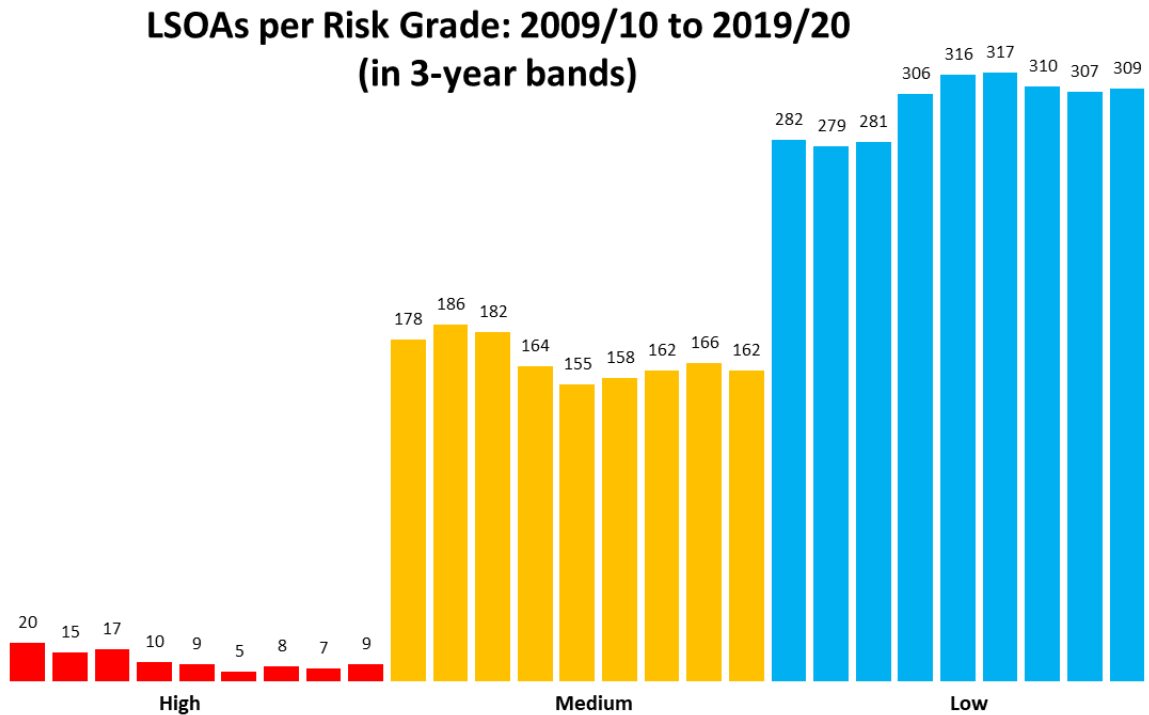


Figure 2: Number of LSOAs per Risk Grade in three year bands



3.4. Table 6 and Figure 1 show that the overall fire risk score has continued to fall throughout the last eleven years, though Figure 2 also shows that the scores have started to level out over the last five years. The number of High fire risk LSOAs remains low, falling from 20 in 2009/10 – 2011/12 to 9 in 2017/18 – 2019/20. This may reflect a number of factors including improved fireproofing in housing and household items as well as the focused prevention and protection work undertaken by the Service. The number of Medium fire risk LSOAs shows a downward trend, and represents about one third of all LSOAs. The number of Low fire risk LSOAs continues to show a generally upward trend, meaning that most areas of the two counties are at low risk of fire. Table 7 shows the percentage changes between 2009/10 and 2019/20.

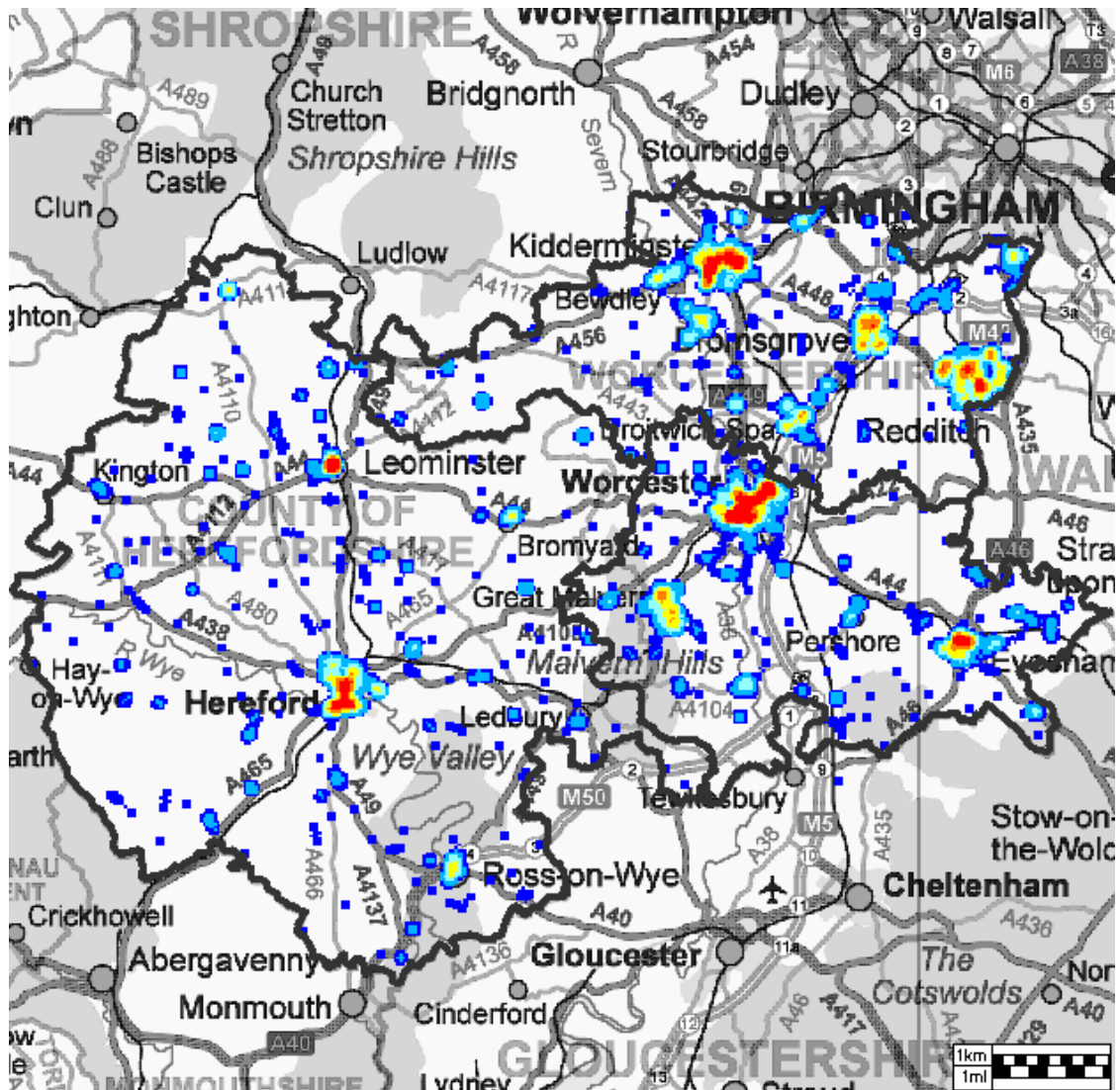
Table 7: LSOA Risk Score 2009/10 – 2019/20

LSOA Risk Score	Risk Grade	No. LSOAs 2009/10 – 2011/12	No. LSOAs 2017/18 – 2019/20	% change 2009/10 - 2019/20
65 and Above	High	20	9	-55%
34 - 64	Medium	178	162	-9%
33 and below	Low	282	309	+10%

## 4. Risk Mapping

4.1. The locations of all fires across the two counties can be mapped. The following three maps show the distribution of accidental dwelling fires, accidental dwelling fires with casualties and accidental non-dwelling fires for the last three years 2017/18 – 2019/20. There are clear concentrations of fire incidents in the larger urban areas, but the maps also show that the incidents occurred in many other locations including in the more rural areas across the two counties.

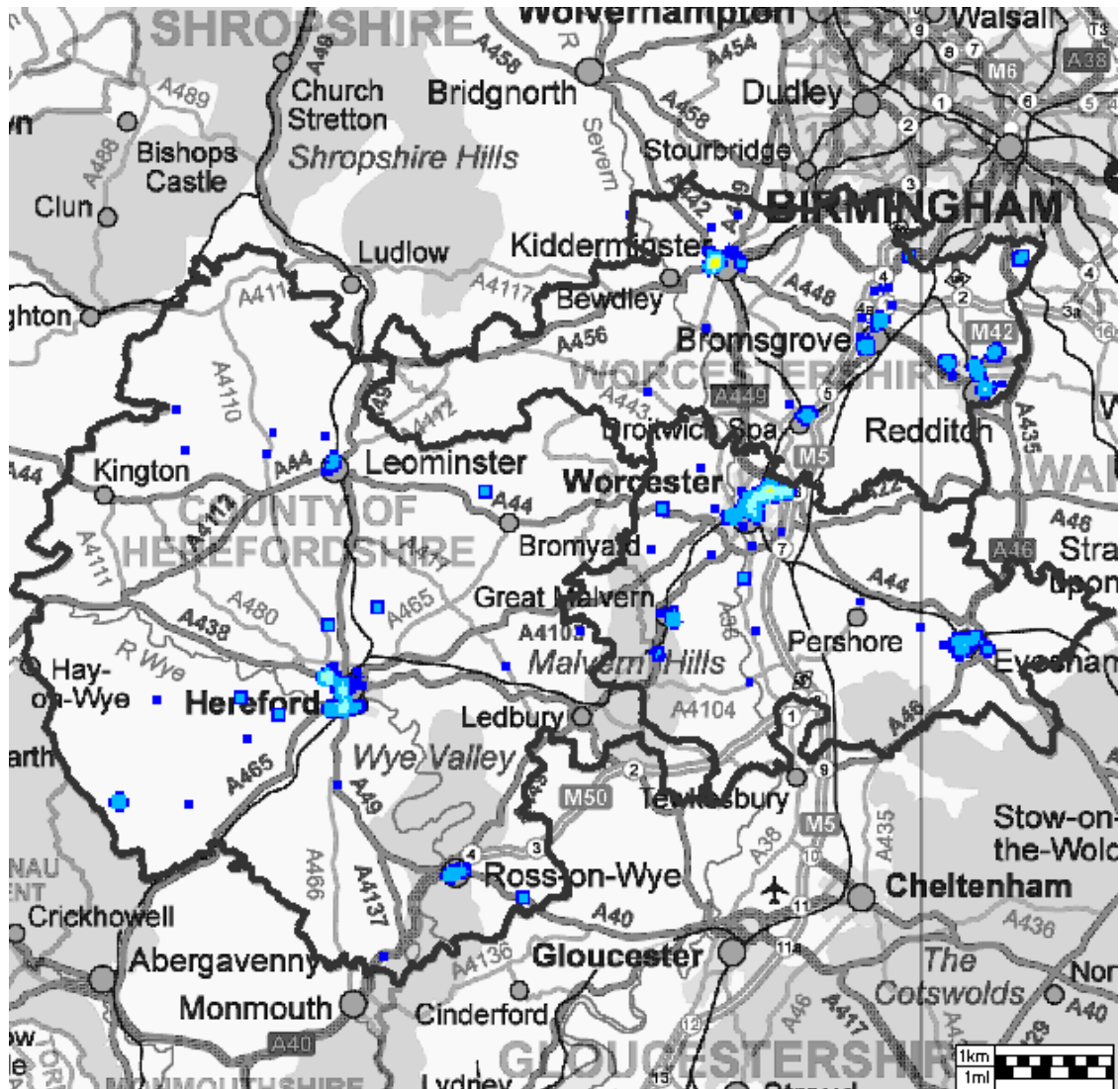
Map 1: Accidental Dwelling Fires 2017/18 – 2019/20 hotspot map



4.2. The map above shows where hotspots of accidental dwelling fire incidents occurred over the last three years, 2017/18 – 2019/20. The hotspots show how concentrated the data is, graduating from **hot/high** (i.e. where incidents occurred most frequently) to **cold/low** (i.e. where incidents occurred least frequently).

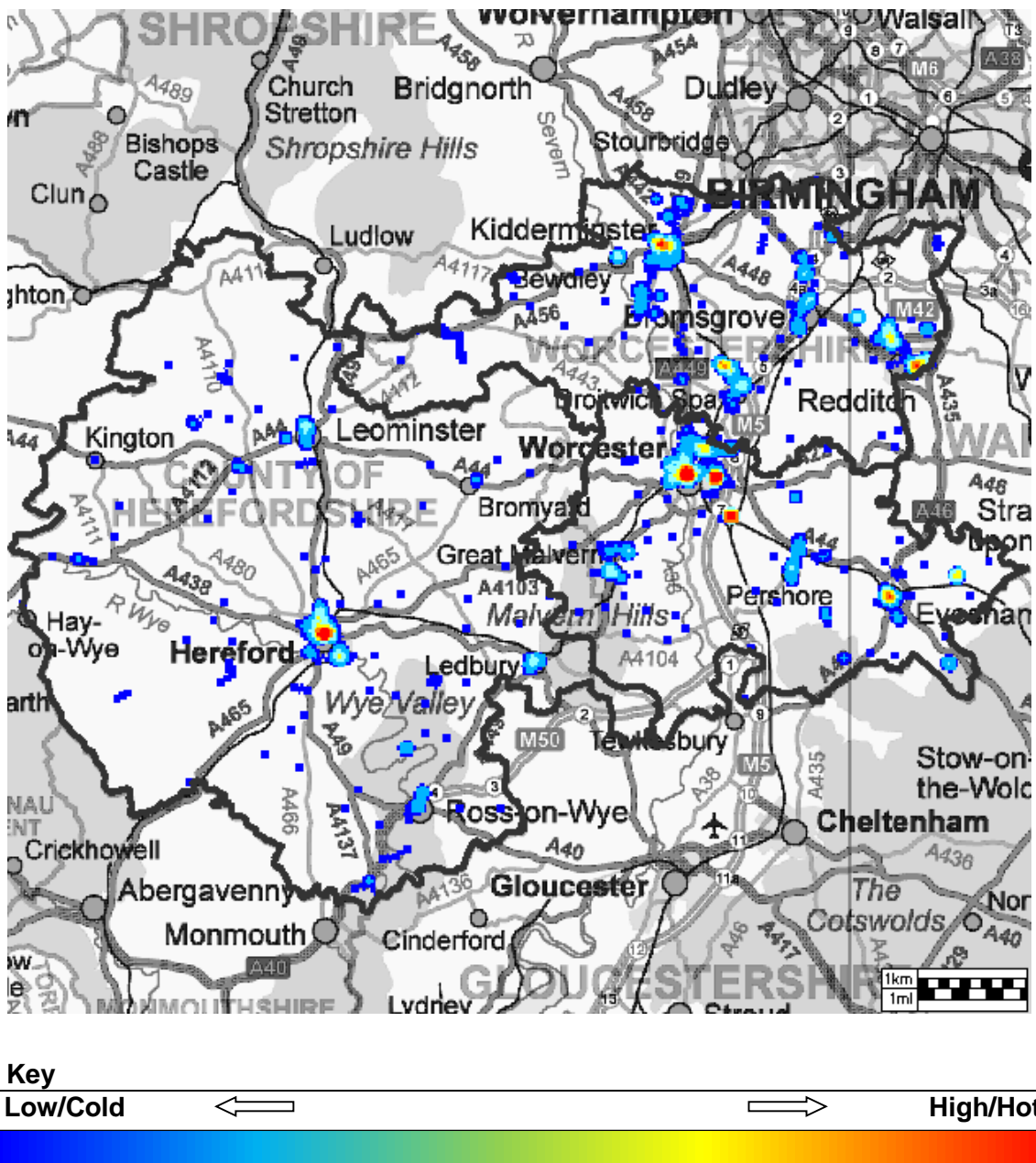
4.3. There were 1,404 accidental dwelling fires across the two counties between 2017/18 and 2019/20; 421 occurred in Herefordshire and 983 in Worcestershire. The map shows that while the majority of dwelling fires occurred in the larger urban centres such as Hereford, Worcester, Kidderminster and Redditch, they also occurred in other locations throughout the Service area.

**Map 2: Accidental Dwelling Fires with Casualties 2017/18 – 2019/20 hotspot map**



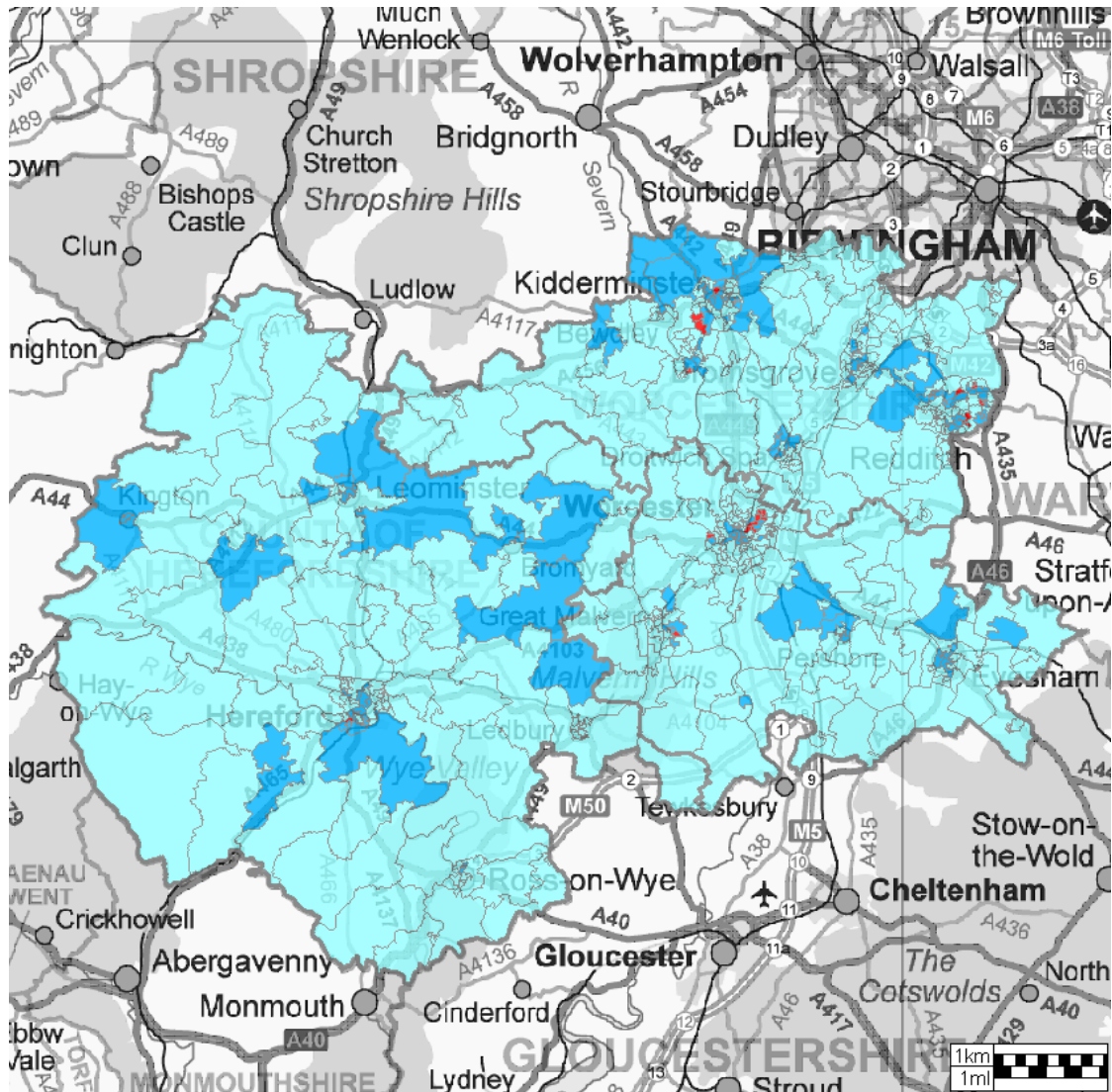
4.4. The map above shows where hotspots of accidental dwelling fire incidents involving casualties occurred over the last three years, 2017/18 – 2019/20. There were 196 casualties in accidental dwelling fires across the two counties between 2017/18 and 2019/20; 66 were in Herefordshire and 130 were in Worcestershire.

Map 3: Accidental Non-Dwelling Fires 2017/18 – 2019/20 hotspot map



- 4.5. The map above shows where hotspots of accidental fires in buildings other than dwellings occurred over the last three years, 2017/18 – 2019/20. There were 614 accidental non-dwelling building fires across the two counties between 2017/18 and 2019/20; 175 were in Herefordshire and 439 were in Worcestershire. There were 33 injuries and no fatalities in these fires. The map also shows that the majority of accidental non-dwelling building fires occurred in the urban centres.
- 4.6. The fourth element of the formula, the 2019 Index of Multiple Deprivation (IMD) score, can also be mapped. The following map shows the relative levels of deprivation across the two counties.

**Map 4: Herefordshire and Worcestershire map of LSOAs by IMD 2019**



IMD 2019 level of deprivation	Number of LSOAs	Note
High	19	LSOAs in 10% worst in England
Medium	111	LSOAs in worse than average range (51%-90%)
Low	350	LSOAs in better than average range (0-50%)

4.7. The map above provides a general view of deprivation across the two counties relative to the whole of England. To calculate the score, England is divided up into 32,844 small areas called Lower-layer Super Output Areas (LSOAs), and a range of data is applied against each to provide a relative measure of multiple deprivation. The data is organised into seven groups each of which reflects a different aspect of deprivation. These groups are income deprivation, employment deprivation, education, skills and training deprivation, health deprivation and disability, crime, barriers to housing and

services and living environment deprivation. The scores for each group are weighted and combined to give an overall Index of Multiple Deprivation score for each LSOA.

- 4.8. Across England the scores for the 2019 IMD range from 96.74 for the most deprived LSOA to 0.54 the least deprived. Ranking the scores provides a list where the LSOA with a rank of 1 is the most deprived, and the rank of 32,844 the least deprived.
- 4.9. Of the 480 LSOAs in the two counties, 116 are in Herefordshire and 364 are in Worcestershire. The highest IMD score was 76.145 for part of the Old Warndon area, east of Cranham Drive in Worcester, giving it an overall rank of 72nd most deprived LSOA in England. The lowest score was 2.136 in the Drakes Cross and Walkers Heath area of Bromsgrove, giving it an overall rank of 32,627. Nineteen LSOAs were within the 10% most deprived areas in England, eighteen of which were in Worcestershire and one in Herefordshire. The nineteen LSOAs are listed in Table 8 below.

**Table 8: Herefordshire and Worcestershire LSOAs in 10% most deprived in England, IMD 2019**

	<b>Local Authority area</b>	<b>Ward</b>	<b>LSOA description</b>	<b>IMD 2019 Rank (out of 32,844)</b>
1	Worcester	Warndon	Old Warndon, east of Cranham Drive	72
2	Wyre Forest	Foley Park & Hoobrook	Rifle Range area	148
3	Worcester	Rainbow Hill	Tolladine	475
4	Redditch	Greenlands	St. Thomas More First School area	1,286
5	Worcester	Warndon	Cranham Primary School area	1,376
6	Malvern Hills	Pickersleigh	Sherrard's Green	1,777
7	Worcester	Gorse Hill	South-West Gorse Hill	1,899
8	Wyre Forest	Broadwaters	Horsefair area	1,947
9	Worcester	Rainbow Hill	King George's Field area, Tolladine	1,996
10	Wyre Forest	Areley Kings & Riverside	The Walshes	2,172
11	Worcester	Gorse Hill	Warndon, Windermere Drive	2,355
12	Redditch	Winyates	Winyates housing estate area	2,391
13	Worcester	St. John	Dines Green	2,407
14	Redditch	Abbey	Abbeydale	2,442
15	Worcester	Warndon	Brickfields	2,762
16	Herefordshire	Newton Farm	Golden Post – Newton Farm	2,871
17	Wyre Forest	Foley Park & Hoobrook	Birchen Coppice	2,989
18	Redditch	Greenlands	Woodrow area	3,073
19	Redditch	Church Hill	Church Hill (YMCA surrounding area)	3,176

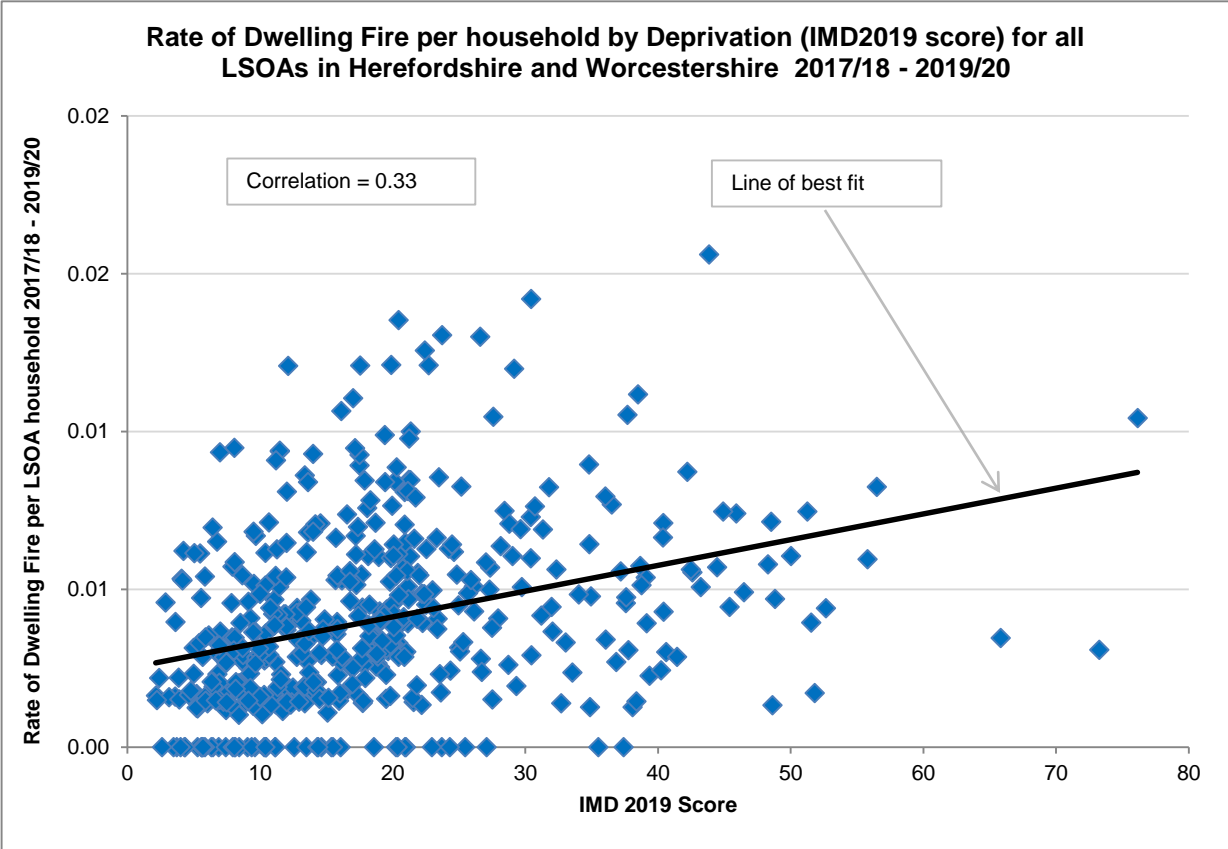
- 4.10. Using the Index of Multiple Deprivation gives an extra dimension to the fire risk formula by adding wider social issues such as unemployment, poor health, low income and crime. National research has found that there is a strong link between the rate of dwelling fires and deprivation,<sup>6</sup> and local research from 2011 echoed this finding<sup>7</sup>. However, over the last few years, this link at the local level has weakened. The 2018

<sup>6</sup> Research carried out by Greenstreet Berman Ltd presented in 'Fire and Rescue Service partnership working toolkit for Local Area Agreements' CLG 2008

<sup>7</sup> 'Community Fire Safety – Identifying and locating those most at risk of fire' HWFRS 2011

Risk Review showed a correlation of 0.58, which meant there was a moderate link between the rate of dwelling fires and deprivation. As Figure 3 below shows, the correlation has fallen to 0.33 in the last three years. This means that although there is still a link between the rate of dwelling fire and the rate of deprivation, the link is weak.

**Figure 3: Link between deprivation and the rate of accidental dwelling fire**

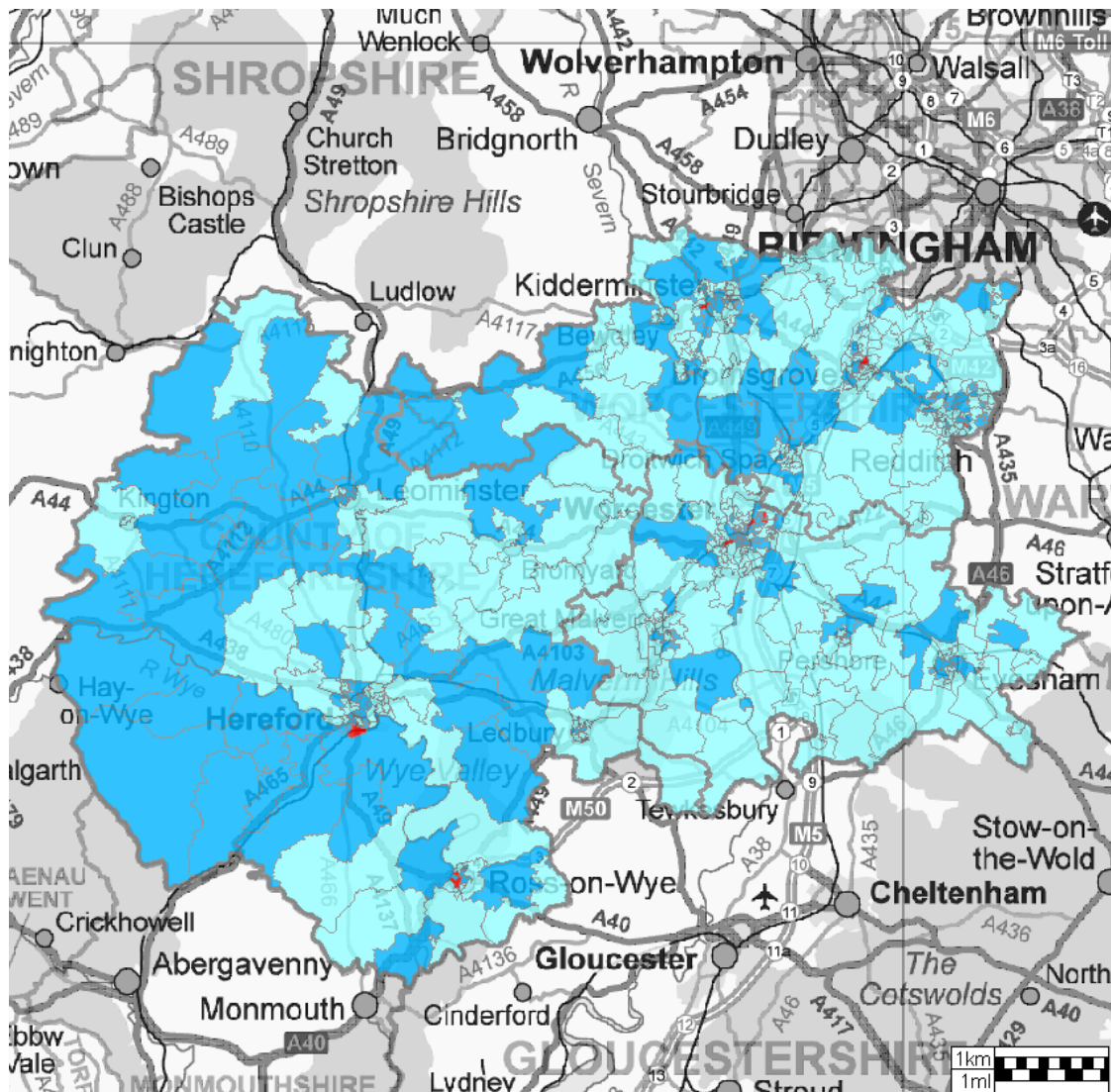




## 5. Fire Risk Map 2017/18 – 2019/20

- 5.1. To create the fire risk map, all four elements of the fire risk model were combined and weighted for each LSOA. The results were colour coded to represent High, Medium and Low risk areas and are shown below for all 480 LSOAs in Herefordshire and Worcestershire for the last three year period 2017/18 – 2019/20.

**Map 5: Herefordshire and Worcestershire Fire Risk Map 2017/18 – 2019/20**



Risk Grade	Number of LSOAs	Note: data from 2017/18 – 2019/20 risk scores
High	9	Because LSOAs are drawn so that they contain comparable numbers of residents, some are geographically larger than others as they are more sparsely populated areas.
Medium	162	
Low	309	

- 5.2. The Fire Risk Map provides a visual representation of fire risk across the two counties. It gives a good foundation upon which to consider where prevention activities such as safe & well and home fire safety checks might be best targeted for greatest impact. It also provides a basis for considering emergency response times against levels of fire risk.
- 5.3. The nine LSOAs that emerge as High fire risk areas in 2017/18 – 2019/20 are listed in Table 9 below. The full list of areas will be examined further with officers from the Community Risk department as part of ongoing work to continue targeting those areas and communities at most risk from accidental fire.

**Table 9 - High risk LSOAs in Herefordshire and Worcestershire 2017/18 – 2019/20**

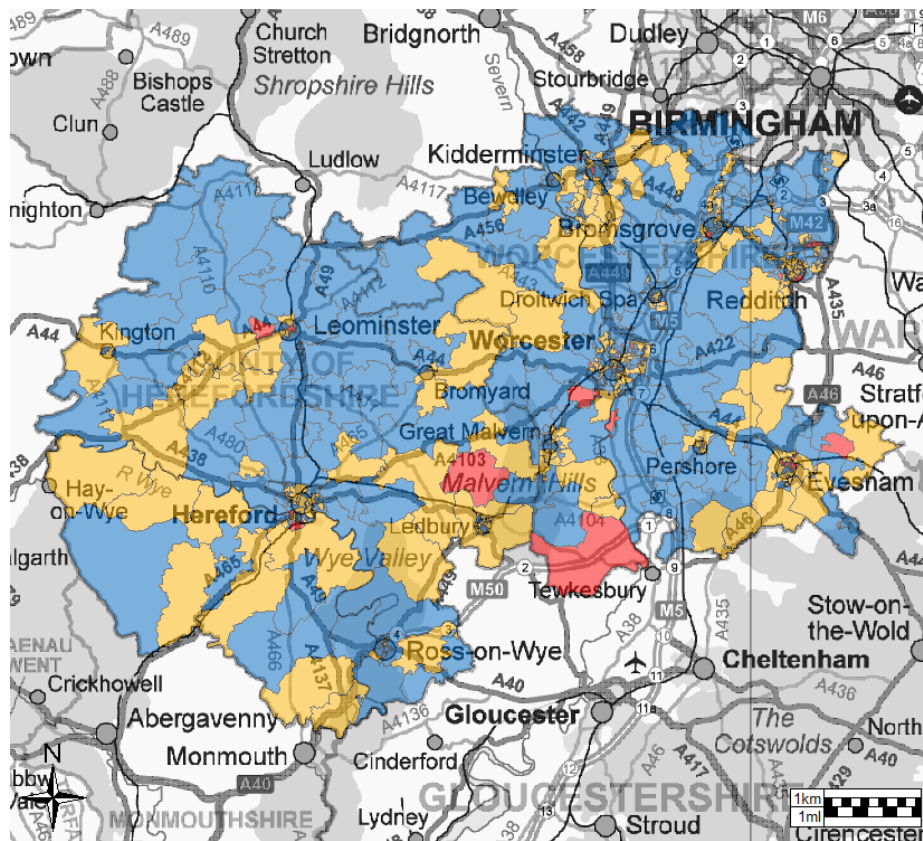
<b>Local Authority</b>	<b>Ward</b>	<b>LSOA description</b>	<b>Top 9 Risk Scores</b>
Wyre Forest	Blakebrook & Habberley South	Greatfield Road area	78
Bromsgrove	Bromsgrove Central	North Bromsgrove High School area	76
Redditch	Greenlands	Woodrow area	72
Worcester	Gorse Hill	Warndon, Windermere Drive area	70
Worcester	Rainbow Hill	Brickfields area, Cedar Avenue	70
Worcester	St John	Our Lady Queen of Peace and Cripplegate Park area	70
Worcester	Warndon	Old Warndon, East of Cranham Drive	68
Herefordshire	Ross-on-Wye West	Ross – Riverside	68
Herefordshire	Red Hill, Hereford	Red Hill – Ross Road	66

## 6. Identifying Trends

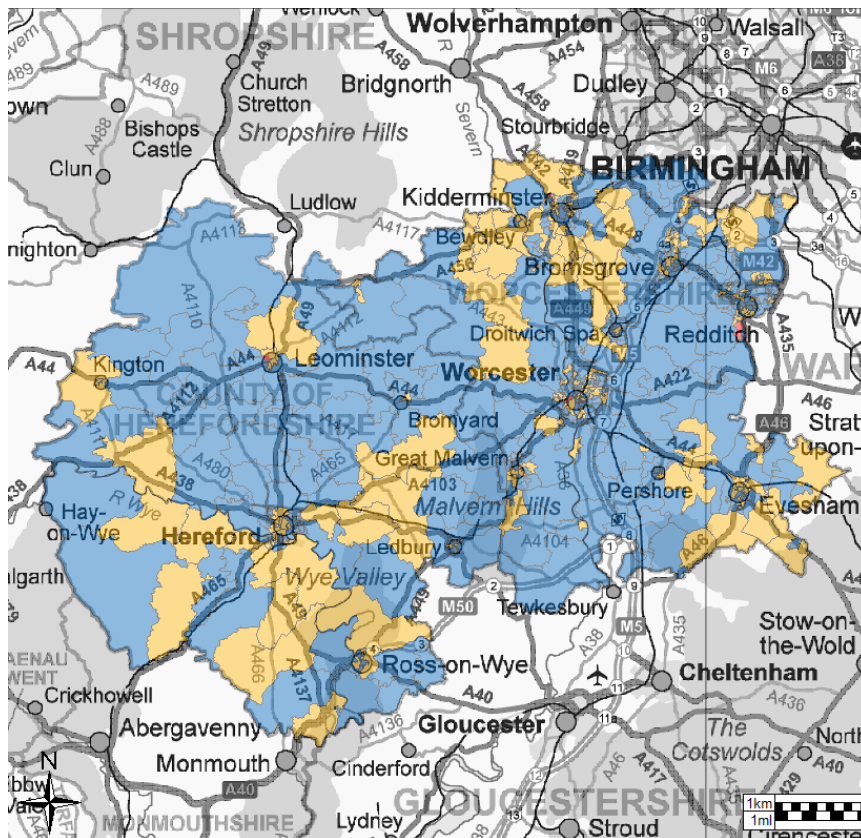
- 6.1. As the tables in Section 5 show, the fire risk model provides a way of identifying those areas and groups that are most at risk of fires in their homes. As new data is added to the model each year, trends can be identified. The follow three maps show the change in fire risk over three time periods.

**Map 6: Fire Risk change over time 2009/10 – 2019/20**

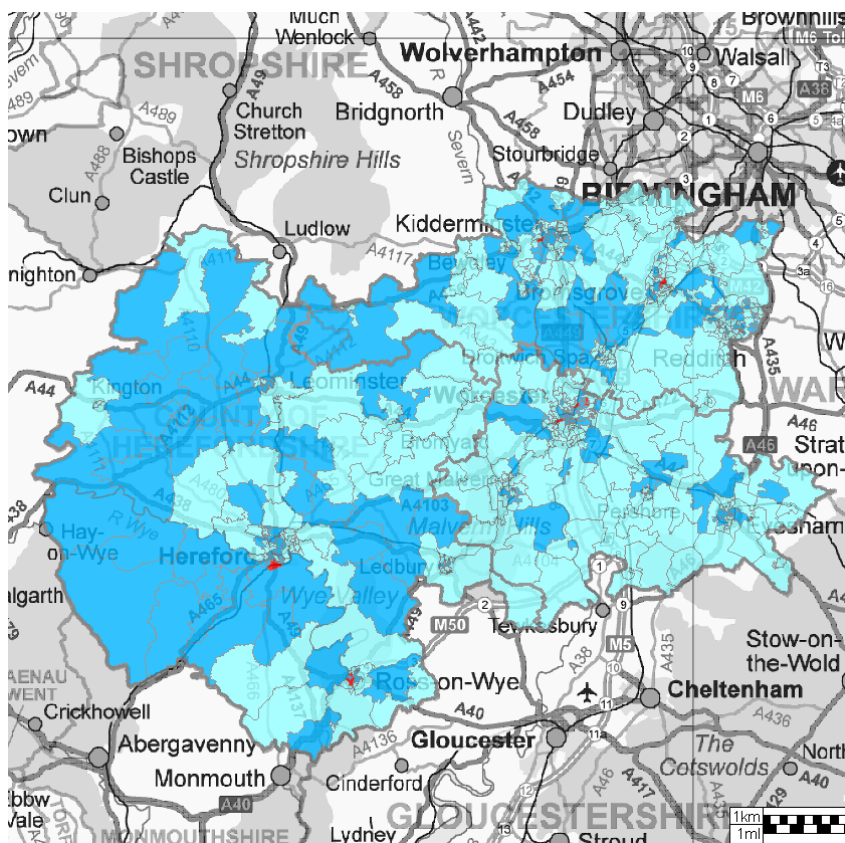
Fire Risk Map 2009/10 – 2011/12



Fire Risk Map 2014/15 – 2015/16

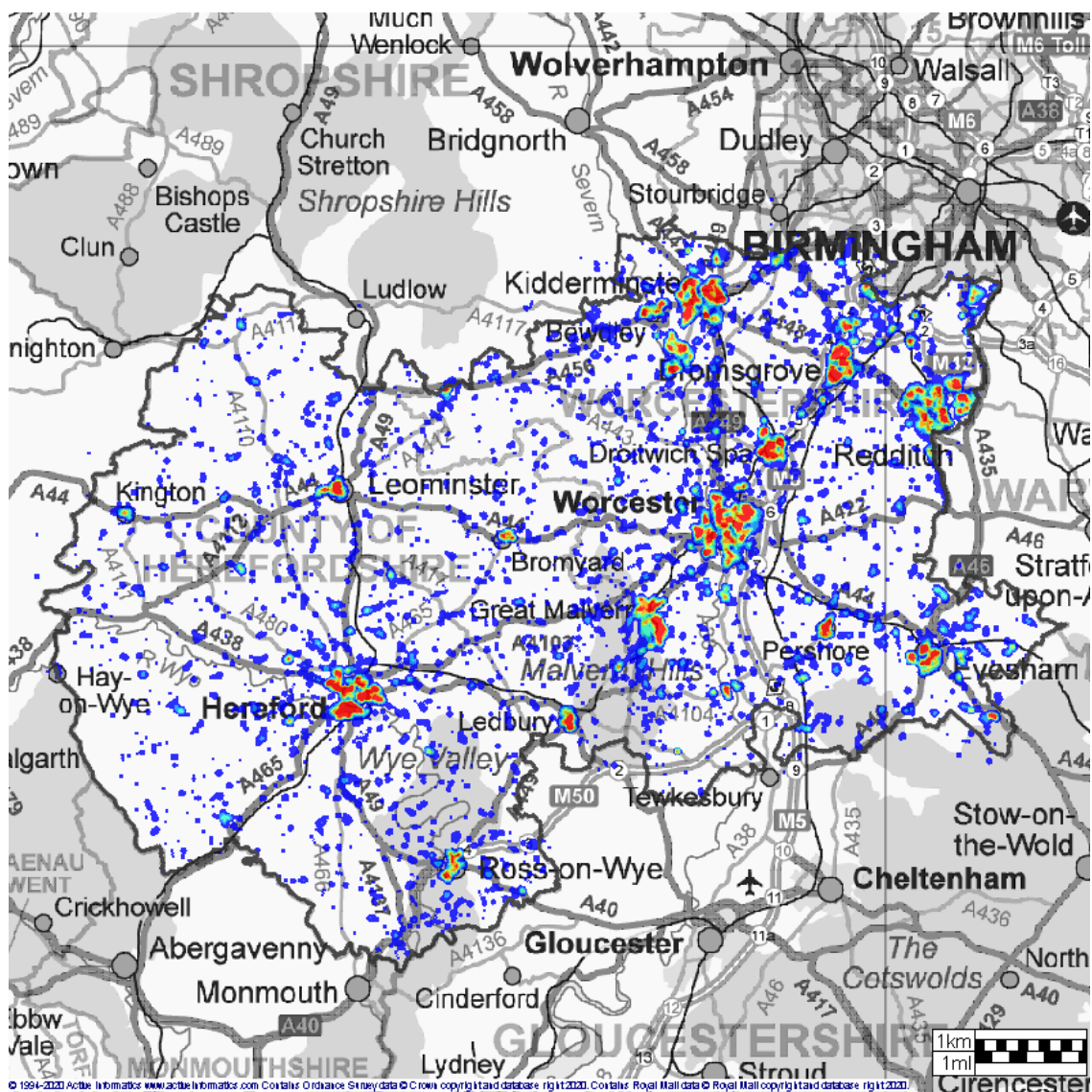


Fire Risk Map 2017/18 – 2019/20



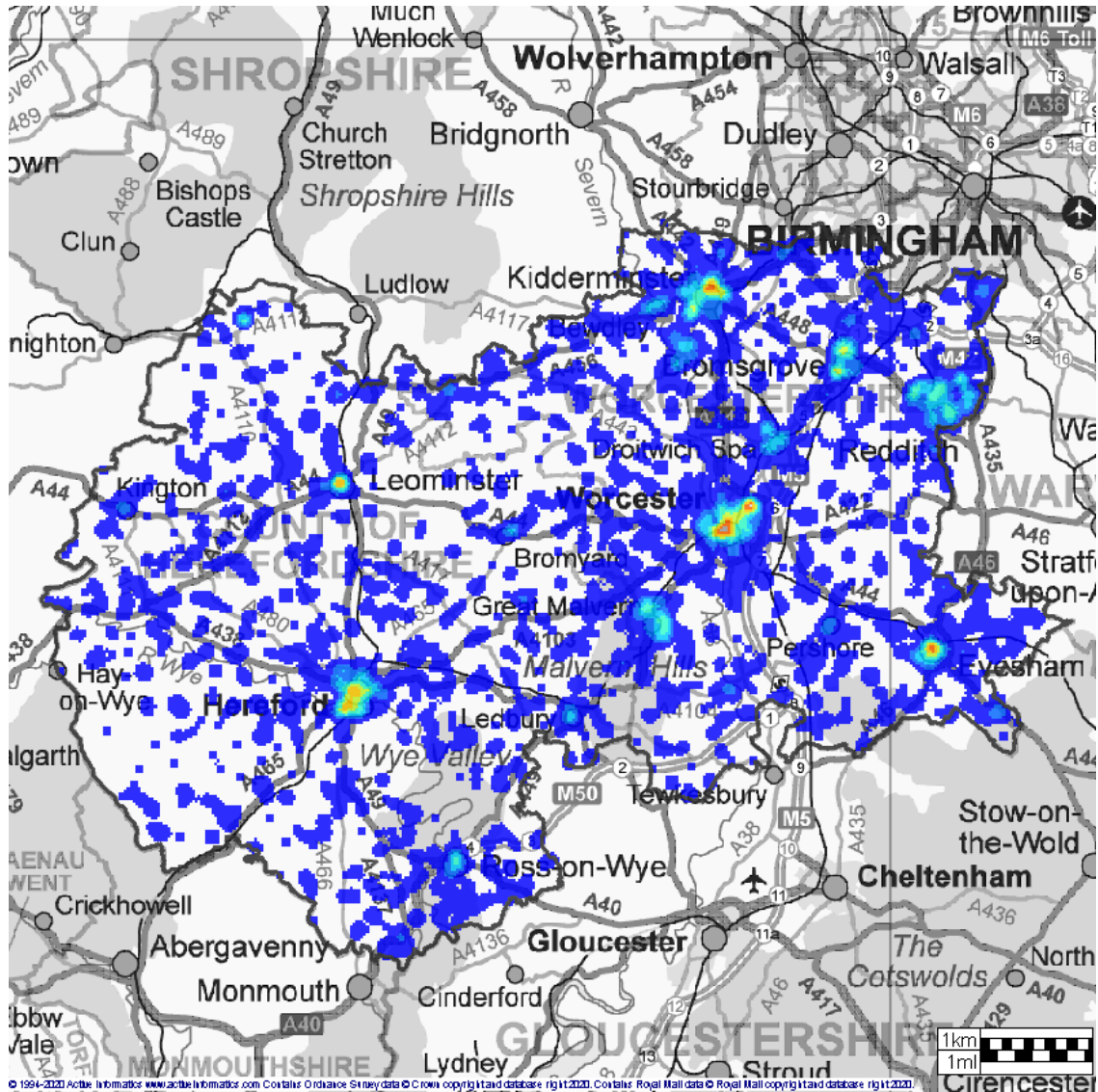
- 6.2. Looking at the relatively rural and sparsely populated western side of Herefordshire in the three maps above, the amber shaded areas in the first two maps represent the extent of Medium fire risk, while the third (and latest) map shows how far the extent of Medium fire risk (shaded in dark blue) has spread. This potential trend will be monitored in order to assist in future targeting of community safety activities.
- 6.3. As part of the approach to targeting community fire safety activity towards those areas most at risk, around 40,500 Home Fire Safety Checks (HFSCs) have been carried out over the last eleven years. The hotspot map, Map 7, below shows where the HFSCs have been targeted; the redder the hotspot the more the number of HFSCs that have been completed in that area.

**Map 7: Home Fire Safety Check activity 2009/10 – 2019/20 hotspot map**



- 6.4. Map 7 above has a close resemblance to the actual pattern of accidental dwelling fires over the last eleven years shown in Map 8 below, which indicates that HFSCs have continued to be targeted towards the areas at most risk of fire.

**Map 8: Accidental Dwelling Fires 2009/10 – 2019/20 hotspot map**



## 7. At Risk Households

7.1. While the Fire Risk Map provides a visual representation of which areas are considered to be more likely to have fires than others, it cannot tell us who is going to have a fire next or where they live. In plain terms, fire can happen to anyone, anywhere.

7.2. However, we know from national and local analyses<sup>8</sup> of fire risk factors that some people are more at risk of fire than others. The findings point to a number of characteristics common amongst fire victims that may contribute to the incidence of fire. These characteristics can be categorised under four main headings.<sup>9</sup>

- **lifestyle and life-stage**: lifestyle is about the way people live, and how some people's way of living makes them more at risk of fire than others. Life-stage is about the stage of life a person has reached, from the very young to the very old. Lifestyle and life-stage also tells us about the person's social, educational and economic status.
- **household type**: the sorts of dwellings people live in, family size and make up. It relates to the characteristics of where people live, and particularly the level of (multiple) deprivation.
- **vulnerability**: this considers those factors that affect someone's ability to protect themselves and stay safe when a fire starts, and includes factors such as learning, physical, mental or sensory disability, and which often require a high level of care support.
- **attitude and behaviour**: this is about how concerned someone might be about the risk of fire, and can range from a lack of knowledge or understanding to behaviour that shows a disregard for personal safety.

7.3. Table 10 organises the main characteristics that fire victims have displayed into these four categories. These characteristics are interrelated and can often overlap into one or more categories, and a person at risk of fire might portray one or several of these characteristics.

**Table 10: Summary of findings: key characteristics of fire risk**

Category	Characteristics	Other factors
<b>lifestyle and life-stage</b>	▪ age, especially older people	
	▪ alcohol misuse	▪ social isolation
	▪ substance (drugs) misuse	▪ poverty
	▪ smoking	▪ poor education
	▪ hoarding tendency	
	▪ unemployed	

<sup>8</sup> 'Learning Lessons from Real Fires: Findings from Fatal Fire Investigation Reports' (Research Bulletin no. 9, June 2006, DCLG); research carried out by Greenstreet Berman Ltd presented in 'Fire and Rescue Service partnership working toolkit for Local Area Agreements' CLG 2008; and 'Community Fire Safety – Identifying and locating those most at risk of fire' HWFRS 2011

<sup>9</sup> Categories drawn from 'Understanding people's attitudes towards fire risk,' DCLG, August 2008

<b>household type</b>	<ul style="list-style-type: none"> <li>▪ single people living alone</li> <li>▪ lone pensioners</li> <li>▪ single parent families</li> <li>▪ living in one room</li> <li>▪ social renters</li> </ul>	<ul style="list-style-type: none"> <li>▪ poor living conditions</li> <li>▪ levels of deprivation</li> </ul>
<b>vulnerability</b>	<ul style="list-style-type: none"> <li>▪ impaired mental capacity, including temporarily, such as caused by medication, alcohol or substances</li> <li>▪ taking medication, particularly if more than one and if sedative</li> <li>▪ sensory impairment</li> <li>▪ learning disabilities</li> <li>▪ poor mental or physical health</li> <li>▪ lack of physical mobility</li> <li>▪ age-related impairment (e.g. dementia)</li> <li>▪ inability to take care of themselves</li> <li>▪ possible oxygen dependence</li> </ul>	<ul style="list-style-type: none"> <li>▪ having poor or dangerous appliances</li> <li>▪ having had previous fire-related incidents</li> <li>▪ being known to other agencies</li> </ul>
<b>attitude and behaviour</b>	<ul style="list-style-type: none"> <li>▪ improper use of appliances (e.g. cooker, heating, electrical items)</li> <li>▪ little or no fire safety awareness</li> <li>▪ negligence or other lack of concern with own or others' personal safety</li> </ul>	<ul style="list-style-type: none"> <li>▪ not having a working smoke alarm</li> </ul>

7.4. The research also shows that these factors not only contribute to the cause of a fire, but can also impair a person's ability to respond to a fire once it has started.

7.5. While it is not easy to pinpoint exactly where people sharing these at risk characteristics can be found, there are other sources of information that can help. One source is the Mosaic Public Sector<sup>10</sup> classification, which is considered below. Another source is the wealth of data held by other public sector organisations.

### **Mosaic Public Sector**

7.6. Mosaic Public Sector draws together a wide range of data and research from numerous sources, including demographic, socio-economic and consumer data, financial measures, property characteristics, value and location. The household data is organised into lifestyle groups and types and can be pinpointed by location for all households in the two counties. There are 15 lifestyle groups and 66 types - see the Appendix for descriptions of each Mosaic lifestyle group and type and their distribution across the two counties.

7.7. The household classifications can also be indexed against other characteristics such as the likelihood of smoking in certain household types, the composition of the household and the likelihood of certain households having health issues. This helps to build a more comprehensive description of the lifestyle, behaviour and circumstances

<sup>10</sup> Mosaic Public Sector is a sophisticated consumer classification model developed by the consumer credit and market research company Experian as a way of categorising lifestyles and behaviours.



of each household in the two counties. It also enables postcodes and households to be clustered into particular groupings sharing similar characteristics, so that each neighbourhood has its own profile.

- 7.8. By using the Mosaic Public Sector classifications and neighbourhood profiles, all household types can be plotted onto a map of Herefordshire and Worcestershire. By overlaying the locations of all accidental dwelling fires onto the same map, we can gain an understanding of how these factors combine to make some people and some areas more at risk of fire than others. It also provides an opportunity to highlight other neighbourhoods outside the identified high risk areas where fire prevention and awareness activities may also need to be targeted.

### ***Mosaic Analysis of Accidental Dwelling Fires between 2014/15 and 2019/20***

- 7.9. Of the 2,894 accidental dwelling fires in the last five years, 2,891 could be matched against Mosaic Public Sector classifications. In the other 3 incidents, the data available was insufficient to provide a Mosaic match. There was also insufficient data to match 54 households against the classifications.
- 7.10. Table 11 below shows that accidental dwelling fires (ADFs) occurred in all fifteen Mosaic lifestyle groups. Groups A (Country Living) and N (Vintage Value) had the greatest number of fires, a total of 1,067 or 37% of all ADFs, while Group C (City Prosperity) had the least, just 3 fires or 0.1% of all ADFs.

**Table 11 - Accidental Dwelling Fires 2014/15 – 2019/20 by Mosaic Lifestyle Group**

<b>Mosaic Lifestyle Group</b>	<b>ADFs 2014/15 – 2019/20</b>	<b>% of all ADFs</b>
A Country Living	748	25.8%
B Prestige Positions	138	4.8%
C City Prosperity	3	0.1%
D Domestic Success	100	3.5%
E Suburban Stability	158	5.5%
F Senior Security	114	3.9%
G Rural Reality	280	9.7%
H Aspiring Homemakers	220	7.6%
I Urban Cohesion	21	0.7%
J Rental Hubs	119	4.1%
K Modest Traditions	121	4.2%
L Transient Renters	174	6.0%
M Family Basics	252	8.7%
N Vintage Value	319	11.0%
O Municipal Tenants	124	4.3%
	<b>2,891</b>	

7.11. However, while this shows which Mosaic groups had accidental dwelling fires and how many, it does not identify the relative risks of fire between the groups. To do this, the data needs to add in the number of households represented in each group across the two counties. By comparing the number of accidental dwelling fires in each group with the number of households in the same group, the relative risks can be identified. This is shown in Table 12 below, which uses mid-year estimates of household numbers for 2019 to measure the relative fire risk of each group.

**Table 12 – Accidental Dwelling Fires 2014/15 – 2019/20 by Mosaic Lifestyle Group and households in Herefordshire and Worcestershire**

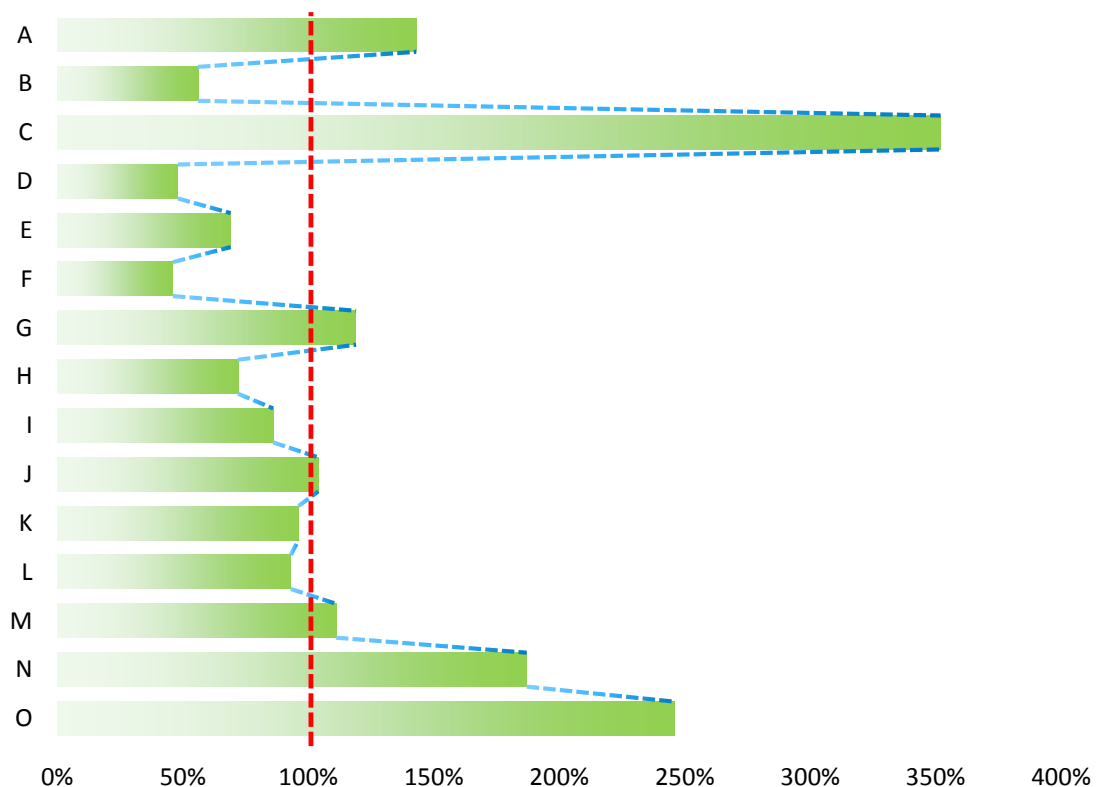
Mosaic Lifestyle Group	ADFs 2014/15 - 2019/20	Households in each Group	Risk Score
A Country Living	748	63,028	143
B Prestige Positions	138	29,577	56
C City Prosperity	3	103	352
D Domestic Success	100	25,071	48
E Suburban Stability	158	27,514	69
F Senior Security	114	30,147	46
G Rural Reality	280	28,300	119
H Aspiring Homemakers	220	37,031	72
I Urban Cohesion	21	2,932	86
J Rental Hubs	119	13,785	104
K Modest Traditions	121	15,203	96
L Transient Renters	174	22,474	93
M Family Basics	252	27,392	111
N Vintage Value	319	20,588	187
O Municipal Tenants	124	6,083	246
	<b>2,891</b>	<b>349,228</b>	

7.12. In Table 12, a Risk Score above 100 shows that households in those Mosaic Lifestyle Groups have relatively more accidental dwelling fires than would be expected if all things were equal. It shows that Group O households had a high risk score of 246, while Group F households had a low risk score of 46. In relative terms, one in every 49 Group O households had an accidental dwelling fire in the five year period, compared to one in every 264 Group F households.

7.13. Although most accidental dwelling fires occurred in Groups A, N and G households, Group O, N and A households are seen to be most at risk of fire across the two counties. It should be noted, that there are only 103 households in Group C and only three accidental dwelling fires over the last five years, so it tends to skew the overall risk scores and has been discounted in this analysis.

- 7.14. It can be seen that those households that share characteristics of higher levels of dependency, deprivation and vulnerability (Groups O, N and M) are at a greater than average risk of fire. While households in these groups form just 15% of all households in the two counties, they accounted for almost a quarter (24%) of all accidental dwelling fires.
- 7.15. It is also notable that there appears to be an increasing fire risk emerging among the more rural households in relatively isolated and sparsely populated areas, particularly in Herefordshire. Both Groups A and G have risk scores above 100 in relation to the last five years, but were recorded with risk scores of below 100 for the 2009-2017 period (as shown in the 2018 Risk Review). Between them, Groups A and G represent 28% of all households, but have experienced 35% of all accidental dwelling fires. This emerging trend can also be seen visually in the Fire Risk maps in Section 6 of this report.
- 7.16. Figure 4 below provides a further representation of the relative incidence of accidental dwelling fires in the 15 Mosaic Groups. The 100% line represents the number of accidental dwelling fires that would be expected if all things were equal. This shows that Mosaic Groups A, C, G, J, M, N and O each had a higher than expected number of fires.

**Figure 4: Distribution of Accidental Dwelling Fires by Mosaic Group 2014/15 – 2019/20**



- 7.17. Targeting home fire prevention and community safety activities towards these groups is likely to assist in reducing their level of fire risk. While Group C skews the graph to some extent, it does help to demonstrate that there can be variations within Groups that show atypical characteristics within households.

**Note:**

Matching incidents against Mosaic provides a detailed and fairly accurate understanding of household circumstances. It is fairly accurate because not all of the addresses of incidents recorded in the incident logs can be matched with the addresses listed in Mosaic. Among the reasons for this are instances where some addresses of flats/apartments are not recorded in the incident reports (instead a general building address is given); some addresses are on caravan sites; some house names have changed or cannot be found; and some buildings no longer exist following the fire incident. In addition, the Mosaic classifications used relates to 2019 data, while the fire incident data covers a five year range. This may also affect the matching to a small extent, as some people are likely to have moved house during this period.

Therefore, the Mosaic matched information for some households provides a close approximation rather than a definitive match. With almost 3,000 matched incidents examined, however, the analysis is able to provide a high level of confidence.

### **Information held by other agencies**

- 7.18. Using national trends and fire statistics, local incident data, Mosaic and deprivation data, helps to identify which groups need to be targeted and where they are most likely to live. However, experience shows that these groups are also often very hard to reach. In many cases, door-knocking is not necessarily the answer.
- 7.19. One way of addressing this is by using Experian's Mosaic model of lifestyles and behaviour, which gives in depth guidance on how best to access each group, such as where their interests lie, and which forms of communication they are most likely to respond to.
- 7.20. An additional way is to utilise the wealth of data held by other public sector organisations, many of whom work with the same at risk groups, and to develop ways of sharing information to identify those people who are likely to be at most risk. For instance, the analysis by the Fire and Rescue Service may reveal a local neighbourhood with a high concentration of households at a potentially high risk of accidental dwelling fire. Additional intelligence from other agencies might be able to highlight which of these households are likely to be more vulnerable than others, such as if they contain people with limited mobility or mental health issues or whether they are heavy smokers or not.
- 7.21. Information held by other agencies may be of a personal, confidential and sensitive nature, and will not normally be accessible to Fire and Rescue Services. This is an area that the Fire and Rescue Service and its public sector partners continue to explore, in order to find ways of sharing appropriate information that helps to improve how vulnerable and at risk groups are targeted and reached. Current examples include Service's Signposting and Safeguarding work with partners across the two counties.

## 8. Road Traffic Collisions

- 8.1. The incidence of road traffic collisions (RTCs), and the injuries or fatalities in those RTCs, is a further factor in assessing the overall life risk across the two counties. It should be stressed that this review covers those RTCs requiring attendance by the Fire and Rescue Service, and that there are many more RTCs in the two counties that the Fire and Rescue Service is not required to attend. In the following section, the term RTC is used to relate only to those incidents attended by the Fire and Rescue Service.
- 8.2. Between 2009/10 and 2019/20, the Fire and Rescue Service attended almost 7,000 RTCs<sup>11</sup>, with close to a quarter of these involving serious injuries<sup>12</sup> or fatalities.
- 8.3. An RTC risk model has been developed to examine the likelihood of an RTC occurring in a particular area against the potential of being seriously injured or killed in that RTC. The model uses fire station grounds as the most appropriate areas for analysis, and involves an assessment of four factors:
- a. the number of RTC incidents attended per fire station ground
  - b. the number of RTC incidents involving serious injury
  - c. the number of RTC incidents involving fatalities
  - d. the rate of RTCs involving serious injuries and fatalities per fire station ground
- 8.4. The first factor gives the number of RTCs attended by the Service in each fire station ground over eight years, and provides a measure of the likelihood of an RTC incident occurring in that area. The other three factors provide a measure of the potential severity of the incident: factors b. and c. ensure that the model reflects the importance attached to reducing injuries and fatalities, while the final factor adds an overall incidence rate for both injuries and fatalities in each fire station ground.

**Table 13: Road Traffic Collisions attended by fire station ground**

<b>a. Number of RTC incidents attended (per fire station ground)</b>		
<b>Calculation</b>	<b>Description</b>	<b>Risk score</b>
	Average no. of RTCs attended per year:	
	- 59 or more	3
no. of RTC incidents attended (averaged over 10 years)	- less than 59	2
	- less than 29	1

<sup>11</sup> The Fire and Rescue Service recorded attendance at 6,994 RTC incidents between 1 April 2009 and 31 March 2020.

<sup>12</sup> A serious injury is one which requires at least an overnight stay in hospital. The severity of an injury is determined by the officer in charge at the scene, supported by medical judgement where available.

**Table 14: Road Traffic Collisions attended involving serious injury by fire station ground**

<b>b. Number of RTC incidents involving serious injury (per fire station ground)</b>		
<b>Calculation</b>	<b>Description</b>	<b>Risk score</b>
no. of RTCs involving serious injury (total over 10 years)	No. of RTCs involving serious injury:	
	- 71 or more	3
	- less than 71	2
	- less than 36	1

**Table 15: Road Traffic Collisions attended involving fatality by fire station ground**

<b>c. Number of RTC incidents involving fatality (per fire station ground)</b>		
<b>Calculation</b>	<b>Description</b>	<b>Risk score</b>
no. of RTCs involving serious injury (total over 10 years)	No. of RTCs involving fatality:	
	- 13 or more	3
	- less than 13	2
	- less than 7	1

**Table 16: Road Traffic Collisions attended involving fatality by fire station ground**

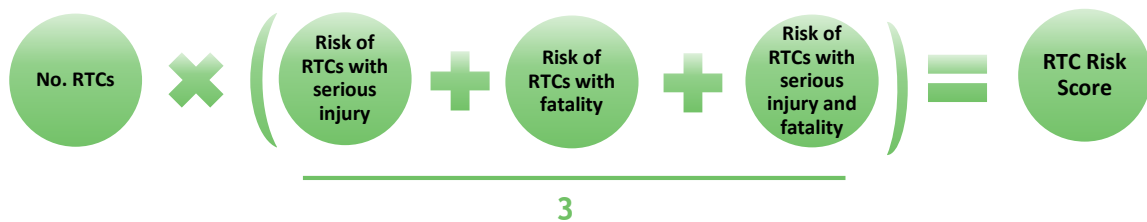
<b>d. Rate of RTC incidents involving serious injury and fatality (per fire station ground)</b>		
<b>Calculation</b>	<b>Description</b>	<b>Risk score</b>
rate of RTCs involving serious injury and fatality (over 10 years)	Rate of RTCs involving serious injury and fatality:	
	- greater than 63%	3
	- between 31% and 62%	2
	- less than 31%	1

8.5. A composite score for the three severity factors (b, c and d) was derived by simply adding the three scores together and dividing by three. Final scores were then rounded to avoid fractions.

8.6. An overall risk score was then determined by using the Service’s Risk Rating Matrix,<sup>13</sup> as below:

		Likelihood		
		<i>unlikely</i>	<i>likely</i>	<i>highly likely</i>
Severity	<i>slightly harmful</i>	1	2	3
	<i>harmful</i>	2	4	6
	<i>extremely harmful</i>	3	6	9

8.7. The formula can be expressed as follows:



8.8. Using this formula the following table shows the results for each fire station in the two counties.

**Table 17: RTC Risk Rating for each Fire Station Ground 2009/10 – 2019/20**

Fire Station Ground	No. RTCs 2009/10 – 2019/20	RTC	
		Score	Risk Rating
<i>Station</i>		<i>Score</i>	<i>Grade</i>
Redditch	833	6	High
Worcester	885	6	High
Wyre Forest	960	6	High
Bromsgrove	662	5	High
Droitwich	464	5	High
Hereford	538	5	High
Evesham	305	5	High

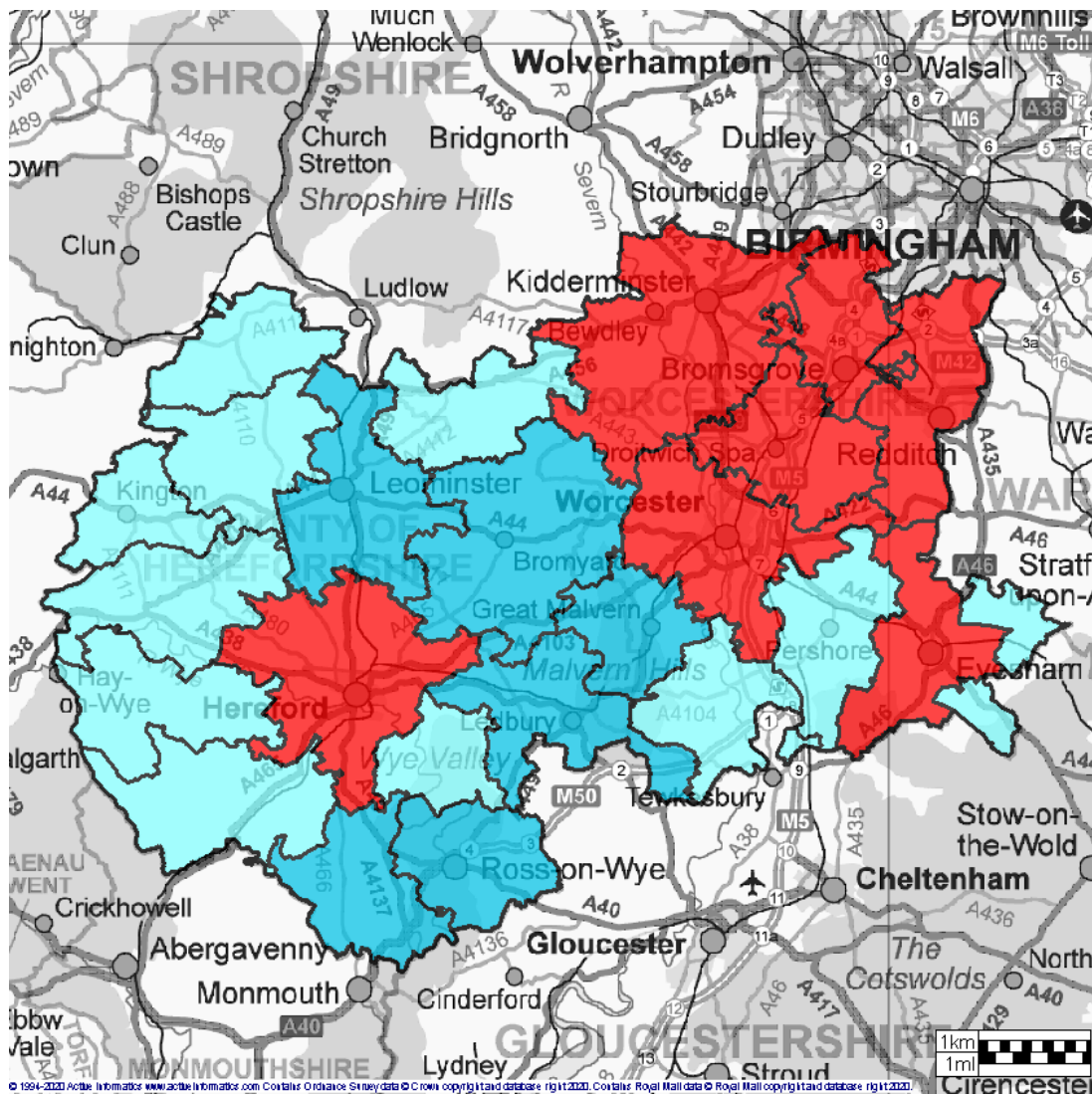
<sup>13</sup> taken from HWFRS Service Policy/Instructions No.6, Section C, Part 9: Health and Safety Policies, Risk Assessment Procedure for Operational and Non-Operational Activities v4.00.

Malvern	320	4	Medium
Ledbury	203	4	Medium
Leominster	214	4	Medium
Ross-on-Wye	234	4	Medium
Bromyard	230	3	Medium
Whitchurch	196	3	Medium
Kingsland	102	2	Low
Fownhope	55	1	Low
Pebworth	29	1	Low
Broadway	55	1	Low
Eardisley	79	1	Low
Ewyas Harold	63	1	Low
Kington	72	1	Low
Leintwardine	41	1	Low
Pershore	160	2	Low
Peterchurch	53	1	Low
Tenbury Wells	75	1	Low
Upton upon Severn	163	2	Low

- 8.9. In the table, the number of High risk areas has risen from four in the 2018 Risk Review to seven with Droitwich and Hereford moving up from Medium and Evesham up from Low. The Medium risk areas have risen to six from three with Bromyard, Ledbury, Leominster, Ross-on-Wye and Whitchurch moving up from Low
- 8.10. The following map (Map 9) provides a visual representation of the RTC risk ratings across the two counties. The map also shows that the higher risk areas are generally within the main urban centres across the two counties and along the M5/M42/M50 motorway corridors.



Map 9: Herefordshire and Worcestershire RTC Risk Map 2009/10 – 2019/20

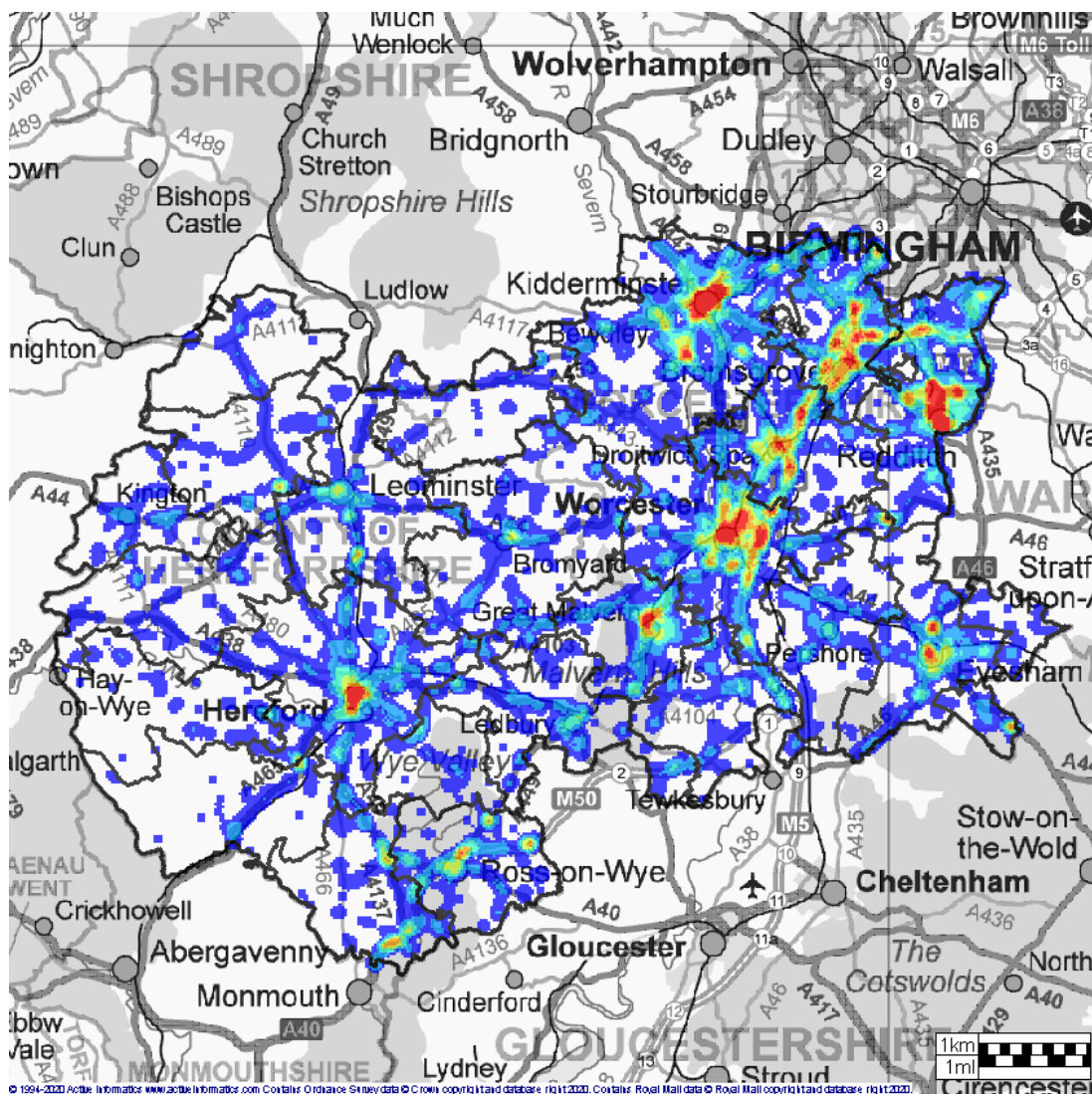


**Key**

Risk Grade	Number of Fire Station Grounds
High	7
Medium	6
Low	12

8.11. The following hotspot map (Map 10) shows where the majority of incidents occurred between 2009-10 and 2019-20.

**Map 10: Hotspot map of RTC incidents over 10 years (2009/10 - 2019/20)**



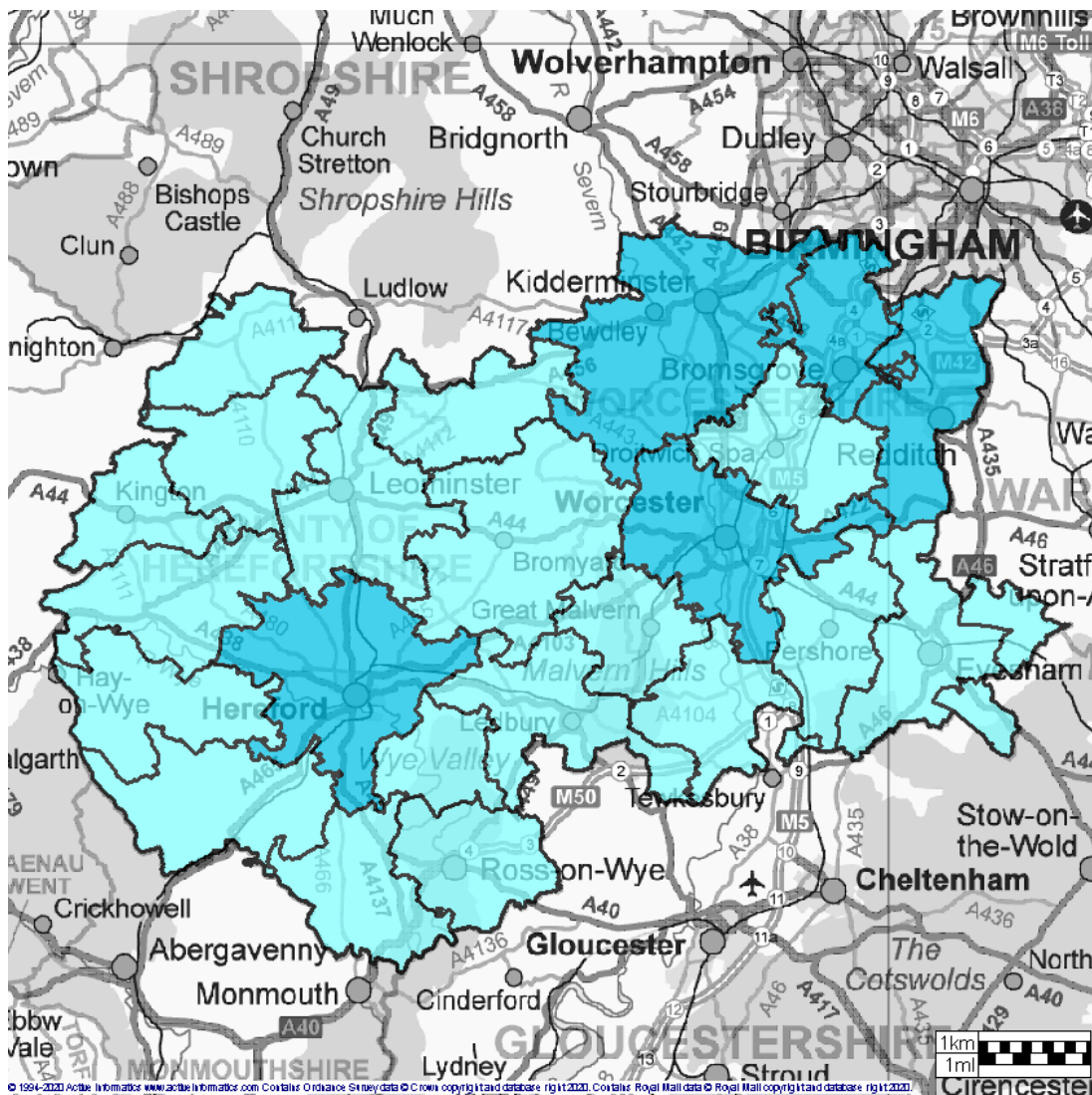
Key	Incident Intensity
Blue	0 to 2.9
Light Blue	3 to 5.9
Light Green	6 to 8.9
Yellow	9 to 11.9
Orange	12 to 14.9
Red	15 and over

8.12. Using the same RTC risk formula and applying it to just the last three years, 2017/18 – 2019-20, shows that there are now no areas at High risk, though it represents only three years' worth of incident data. This can be seen in Table 18 and Map 11 below.

**Table 18: RTC Risk Rating for each Fire Station Ground 2017/18 – 2019/20**

Fire Station Ground	No. RTCs 2017/18 – 2019/20	RTC	
		Score	Risk Rating
<i>Station</i>		<i>Score</i>	<i>Grade</i>
Bromsgrove	177	3	Medium
Hereford	181	3	Medium
Redditch	239	3	Medium
Worcester	266	3	Medium
Wyre Forest	276	3	Medium
Broadway	11	1	Low
Bromyard	55	1	Low
Droitwich	131	2	Low
Eardisley	29	1	Low
Evesham	99	2	Low
Ewyas Harold	17	1	Low
Fownhope	19	1	Low
Kingsland	24	1	Low
Kington	25	1	Low
Ledbury	51	1	Low
Leintwardine	12	1	Low
Leominster	67	1	Low
Malvern	90	2	Low
Pebworth	13	1	Low
Pershore	47	1	Low
Peterchurch	12	1	Low
Ross-on-Wye	70	1	Low
Tenbury Wells	18	1	Low
Upton upon Severn	34	1	Low
Whitchurch	50	1	Low

Map 11: Herefordshire and Worcestershire RTC Risk Map 2017/18 – 2019/20



**Key**

Risk Grade	Number of Fire Station Grounds
High	0
Medium	5
Low	20

8.13. While there continues to be a general reduction in the number of RTCs attended over the last ten years, it is important not to become complacent. In the last three years, there were 171 RTCs attended involving serious injuries and there were 37 fatalities. Therefore, the Service continues to work closely with road safety partners to help reduce the number of road traffic collisions across the two counties. The maps and data are important in supporting the ongoing road safety work with local authority and road safety agencies across the two counties. Closer examination of incident types and locations over time will continue to help to identify particular accident hotspots for remedial works.

Mosaic Public Sector classifications 2019<sup>14</sup>

<b>A Country Living</b>	
A01	<b>Rural Vogue:</b> Country-loving families pursuing a rural idyll in comfortable village homes many commuting some distance to work
A02	<b>Scattered Homesteads:</b> Older households appreciating rural calm in stand-alone houses within agricultural landscapes
A03	<b>Wealthy Landowners:</b> Prosperous owners of country houses including affluent families, successful farmers and second-home owners
A04	<b>Village Retirement:</b> Retirees enjoying pleasant village locations with amenities to service their social and practical needs
<b>B Prestige Positions</b>	
B05	<b>Empty-Nest Adventure:</b> Mature couples in comfortable detached houses who have the means to enjoy their empty-nest status
B06	<b>Bank of Mum and Dad:</b> Well-off families in upmarket suburban homes where grown-up children benefit from continued financial support
B07	<b>Alpha Families:</b> High-achieving families living fast-track lives, advancing careers, finances and their school-age kids' development
B08	<b>Premium Fortunes:</b> Asset-rich families with substantial income, established in distinctive, expansive homes in wealthy enclaves
B09	<b>Diamond Days:</b> Retired residents in sizeable homes whose finances are secured by significant assets and generous pensions
<b>C City Prosperity</b>	
C10	<b>World Class Wealth:</b> Global high flyers and moneyed families living luxurious lifestyles in London's most exclusive boroughs
C11	<b>Penthouse Chic:</b> City professionals renting premium-priced flats in prestige central locations
C12	<b>Metro High-Flyers:</b> Career-minded 20 and 30-somethings renting expensive apartments in highly commutable areas of major cities
C13	<b>Uptown Elite:</b> High status households owning elegant homes in accessible inner city suburbs where they enjoy city life in comfort
<b>D Domestic Success</b>	
D14	<b>Cafes and Catchments:</b> Affluent families with growing children living in upmarket housing in city environs
D15	<b>Modern Parents:</b> Busy couples in modern detached homes balancing the demands of school-age children and careers
D16	<b>Mid-career Convention:</b> Professional families with children in traditional mid-range suburbs where neighbours are often older
D17	<b>Thriving Independence:</b> Well-qualified older singles with incomes from successful professional careers in good quality housing
<b>E Suburban Stability</b>	
E18	<b>Dependable Me:</b> Single mature owners settled in traditional suburban homes working in intermediate occupations
E19	<b>Fledgling Free:</b> Pre-retirement couples enjoying greater space and reduced commitments since their children left home
E20	<b>Boomerang Boarders:</b> Long-term couples with mid-range incomes whose adult children have returned to the shelter of the family home
E21	<b>Family Ties:</b> Active families with adult children and some teens, giving prolonged support to the next generation

<sup>14</sup> Table from [Mosaic Public Sector, Experian Ltd. 2019](#)

## F Senior Security

- F22 **Legacy Elders:** Financially-secure elders on good pensions, now mostly living alone in comfortable suburban homes
- F23 **Solo Retirees:** Senior singles owning affordable but pleasant homes, whose reduced incomes are satisfactory
- F24 **Bungalow Haven:** Peace-seeking seniors appreciating the calm of bungalow estates designed for the older owners
- F25 **Classic Grandparents:** Lifelong couples in standard suburban homes, often enjoying retirement through grandchildren and gardening

## G Rural Reality

- G26 **Far-Flung Outposts:** Inter-dependent households living in the most remote communities with long travel times to larger towns
- G27 **Outlying Seniors:** Pensioners living in inexpensive housing in out of the way locations
- G28 **Local Focus:** Rural families in affordable village homes who are reliant on the local economy for jobs
- G29 **Satellite Settlers:** Mature households living in developments around larger villages with good transport links

## H Aspiring Home Makers

- H30 **Affordable Fringe:** Settled families with children, owning modest 3-bed semis in areas where there's more house for less money
- H31 **First Rung Futures:** Young owners settling into the affordable homes they have bought in established suburbs
- H32 **Flying Solo:** Independent young singles on starter salaries choosing to rent homes in family suburbs
- H33 **New Foundations:** Occupants of brand new homes who are often younger singles or couples with children
- H34 **Contemporary Starts:** Young families and singles setting up home in modern developments that are popular with their peers
- H35 **Primary Ambitions:** Families with school-age children, who have bought the best house they can afford within popular neighbourhoods

## I Urban Cohesion

- I36 **Culture & Comfort:** Thriving families with good incomes in diverse suburbs
- I37 **Community Elders:** Established older households owning city homes in diverse neighbourhoods
- I38 **Large Family Living:** Large families in traditional terraces in neighbourhoods with a strong community identity
- I39 **Ageing Access:** Older residents owning small inner suburban properties with good access to amenities

## J Rental Hubs

- J40 **Career Builders:** Professional singles and couples in their 20s and 30s progressing in their field of work from commutable properties
- J41 **Central Pulse:** City-loving youngsters renting central flats in vibrant locations close to jobs and night life
- J42 **Learners & Earners:** Inhabitants of the university fringe where students and older residents mix in cosmopolitan locations
- J43 **Student Scene:** Students living in high density accommodation close to universities and educational centres
- J44 **Flexible Workforce:** Successful young renters ready to move to follow worthwhile incomes from service sector jobs
- J45 **Bus-Route Renters:** Singles renting affordable private flats away from central amenities and often on main roads

## K Modest Traditions

- K46 **Self-Supporters:** Hard-working mature singles who own their own budget houses and

	earn modest wages
K47	<b>Back with the Folks:</b> Older owners whose adult children are sharing their modest home while striving to gain independence
K48	<b>Down-to-Earth Owners:</b> Ageing couples who have owned their inexpensive home for many years while working in routine jobs
<b>L Transient Renters</b>	
L49	<b>Youthful Endeavours:</b> Young people endeavouring to gain employment footholds while renting cheap flats and terraces
L50	<b>Renting Rooms:</b> Transient renters of low cost accommodation often within older properties
L51	<b>Value Rentals:</b> Younger singles and couples, some with children, setting up home in low value rented properties
L52	<b>Midlife Renters:</b> Maturing singles in employment who are renting affordable homes for the short-term
<b>M Family Basics</b>	
M53	<b>Budget Generations:</b> Families providing lodgings for adult children and gaining the benefit of pooled resources
M54	<b>Economical Families:</b> Busy families with children, who own their low-cost homes and budget carefully
M55	<b>Families on a Budget:</b> Families with children in low-value social houses making limited resources go a long way
M56	<b>Solid Economy:</b> Stable families with children, renting higher value homes from social landlords
<b>N Vintage Value</b>	
N57	<b>Seasoned Survivors:</b> Single elderly who are long-term owners of their low value properties which provide some financial security
N58	<b>Retirement Communities:</b> Elderly living in specialised accommodation including retirement homes, villages and complexes
N59	<b>Pocket Pensions:</b> Penny-wise elderly singles renting in developments of compact social homes
N60	<b>Flatlet Seniors:</b> Ageing singles with basic income renting small flats in centrally located developments
N61	<b>Estate Veterans:</b> Long-standing elderly renters of social homes who have seen neighbours change to a mix of owners and renters
<b>O Municipal Tenants</b>	
O62	<b>Mature Workers:</b> Older social renters settled in low value homes who are experienced at budgeting
O63	<b>Streetwise Essentials:</b> Singles renting small social flats in town centres
O64	<b>High Rise Residents:</b> Tenants of social flats located in high rise blocks, often living alone
O65	<b>City Diversity:</b> Households renting social flats in busy city suburbs where many nationalities live as neighbours
O66	<b>Inner City Stalwarts:</b> Long-term renters of inner city social flats who have witnessed many changes

<b>Household proportions by Mosaic Groups 2019</b>		<b>H&amp;W %</b>	<b>UK %</b>
<b>A</b>	Country Living	18.0	6.5
<b>B</b>	Prestige Positions	8.5	9.0
<b>C</b>	City Prosperity	0.0	4.0
<b>D</b>	Domestic Success	7.2	7.0
<b>E</b>	Suburban Stability	7.9	10.3
<b>F</b>	Senior Security	8.6	6.6
<b>G</b>	Rural Reality	8.1	5.5
<b>H</b>	Aspiring Home Makers	10.6	8.2
<b>I</b>	Urban Cohesion	0.8	5.4
<b>J</b>	Rental Hubs	3.9	6.4
<b>K</b>	Modest Traditions	4.4	5.9
<b>L</b>	Transient Renters	6.4	5.9
<b>M</b>	Family Basics	7.8	8.8
<b>N</b>	Vintage Value	5.9	4.7
<b>O</b>	Municipal Tenants	1.7	5.7
<b>Total number of households</b>		<b>349,282</b>	<b>28,000,000</b>