



Hereford & Worcester
Fire Authority

Community Risk Management Plan 2021 - 2025

Supporting Documents

CRMP 2021-25 Risk Review

Transport

CRMP 2021-25 Risk Review – Transport

Roads

The Service area is crisscrossed by over 4,700 miles of roads – around 2,080 miles in Herefordshire and 2,650 miles in Worcestershire. This is just about 36 more miles than in 2014, with most of that increase likely to be minor residential roads supporting new housing development. The vast majority of roads are in rural areas, with the A, B, C and Unclassified roads in urban areas only representing 22 per cent of the total road length.

Table 1: Herefordshire and Worcestershire Road Lengths 2018 (miles)

	Herefordshire	Worcestershire	Total
Motorways	4.7	48.5	53.2
A Roads	280.1	310.2	590.3
B Roads	197.2	241.3	438.5
C & U Roads	1,598.9	2,048.5	3,647.4
	2,080.9	2,648.5	4,729.4

Source: [Road length statistics \(RDL\) - Dept. for Transport](#)
(RDL0102 data tables – all figures rounded)

Most of the transport network in Herefordshire comprises rural C or Unclassified roads and country lanes connecting to single carriageway A Roads including the A49 and A44, but the county is connected to the motorway network by the M50 motorway and the A40 trunk road linking South Wales to the West Midlands. With a relatively sparse population across the county, Herefordshire has the second highest road length per head of population in England, and with only four railway stations in the county, people are particularly dependent on road transport. Most people (70 per cent) drive themselves to work in a car or van.¹

While Worcestershire has more urban development than Herefordshire, urban roads only represent one in three of all roads, with most of the network comprising minor B, C and Unclassified roads and lanes. The M5, M42 and M50 motorways run through Worcestershire linking the Midlands with the South West and there is an arterial network of single and dual carriageway A roads including the A44 and A449 connecting Worcester to the main towns in the two counties and beyond. With 85 per cent of Worcestershire’s population living in urban areas or along the arterial corridors, car usage remains high, particularly for short trips of up to 3 miles, and most people (over 60 per cent) drive themselves to work.²

Both counties have ambitious investment programmes for the transport networks, including infrastructure, technology and services essential to supporting population growth, new housing and economic development. Investment in transport infrastructure and technology aims to help manage demand on the road networks by reducing journey times, tackling traffic congestion and improving

¹ [Understanding Herefordshire - Transport](#)

² [Worcestershire's Local Transport Plan - 2018-2030](#)

road safety and air quality. While population growth and new housing is likely to lead to increased volumes of traffic on the roads, both counties are keen to mitigate this by introducing alternative modes of travel as part of their plans, including improved pedestrian and cycle routes, better public transport and promoting more opportunities to work from home. Nevertheless, traffic volumes nationally and locally continue to show an increasing trend. In Great Britain between 2013 and 2018, the traffic volume is estimated to have increased by 8.0 per cent to 328.1 billion vehicle miles (bvm). Over the same period, the traffic volume across the two counties increased by 6.7 per cent to 5.42 bvm, though the increase in Herefordshire was 8.3 per cent.

Table 2: Road Traffic Estimates (billion vehicle miles) 2013-2018

	2013	2018	% increase
	<i>bvm</i>	<i>bvm</i>	
Great Britain	303.7	328.1	8.0
Herefordshire & Worcestershire	5.08	5.42	6.7
Herefordshire	1.09	1.18	8.3
Worcestershire	3.99	4.24	6.3

Source: [Road Traffic Statistics - Dept. for Transport](#)

Major transport infrastructure schemes underway or planned include:

- Herefordshire³
 - City Link Road – to unlock land for new affordable housing and regeneration in the centre of Hereford,
 - Southern Link Road in the South Wye area – to reduce congestion on Belmont Road and provide improved access to the Enterprise Zone at Rotherwas,
 - Hereford Relief Road – to bypass Hereford providing an alternative route for through traffic, additional capacity within the existing network enabling more sustainable modes and access for new development.
- Worcestershire⁴
 - Southern Link Road (A4440) Phase 4 (Ketch to Powick Hams) – to complete the dualling of the road from Junction 7 of the M5 across the River Severn to the Powick roundabout between Worcester and Malvern,
 - A38 Bromsgrove Eastern Bypass – to increase capacity and reduce congestion,
 - M42 Junction 1 (Lickey End) and M6 Junction 6 – to increase capacity, reduce congestion, improve safety and air quality
 - Worcestershire Parkway – new railway station at the intersection of the Bristol to Birmingham and Worcester to London main line railways, with associated highway improvements.

³ [Herefordshire Local Transport Plan 2016-2031 - Strategy](#)

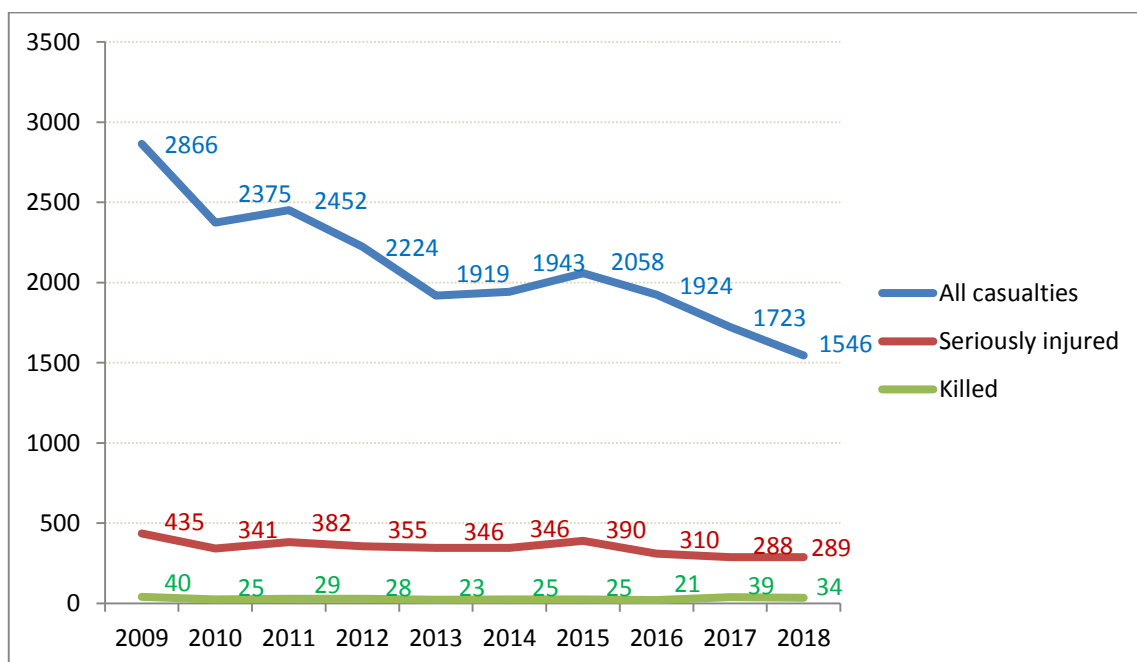
⁴ [Worcestershire's Local Transport Plan 2018-2030](#)

Roads are highlighted as important concerns for the communities of both counties, with traffic congestion and the poor condition of roads featuring prominently as areas where most improvement is needed.⁵ There is regular traffic congestion in most of the built up areas of the two counties, with routes becoming increasingly congested beyond the traditional peak times and causing journey time unreliability as well as damaging local air quality. Hereford city centre, the A44 Worcester Bridge area, Kidderminster ring road and the A448 between Kidderminster and Bromsgrove are notable examples of heavily congested areas of the two counties.

Road Safety Risk Factors

Motor vehicle traffic accidents are a major cause of preventable deaths and injury. In the ten years to 2018, 21,030⁶ casualties were involved in reported road accidents in the two counties. Of the casualties, 3,482 were seriously injured and 289 were killed. Figure 1 below shows that there has been a gradual downward trend in the numbers of casualties involved in road accidents, which may be a result of a number of factors including improved road design and traffic signaling, better vehicle safety features and improved driver awareness. However, the rate of decline in the numbers killed or seriously injured has been slower, with people killed or seriously injured now representing one in five of all casualties (at 2018).

Figure 1 - Herefordshire & Worcestershire Road Casualties 2009-2018



Source: [Dept. for Transport - Reported Road Casualties, Table RAS30038](#)

⁵ [Worcestershire Viewpoint Survey 2018 - Analysis of Results](#) and [Herefordshire Quality Of Life Survey - Headline Results 2018](#)

⁶ [Casualties involved in reported road accidents \(RAS30\), Dept for Transport](#) – all casualties include those killed, seriously injured and slightly injured. Note that figures for slight and serious injuries have been adjusted for changes in severity reporting. Since 2016, changes in severity reporting by police forces means that numbers are not comparable for earlier years, and statistical adjustments have been made.

The number of people killed or seriously injured on the roads is usually pooled over three years and expressed as a rate per 100,000 residents, which allows comparison and identifies trends. Using population estimates⁷ from 2014 to 2018 for Herefordshire and Worcestershire, the rate for 2014-16 was 48.5 per 100,000, falling to 46.3 per 100,000 for 2015-17 and 42.0 per 100,000 for 2016-18. In comparison, the rate for neighbouring rural Shropshire in 2016-18 was 52.6 per 100,000, for the West Midlands region as a whole it was 38.4 per 100,000 and for England it was 47.4 per 100,000.

The latest national figures (June 2018)⁸ show that 1,782 people were killed in reported road traffic accidents in Great Britain, down 30 per cent since ten years ago. 27,811 people were seriously injured, down 15 per cent since 10 years ago, though this number has been adjusted to account for changes to police forces reporting of severity. Figures for Herefordshire and Worcestershire in 2018 show a 15 per cent fall in the number of people killed in reported road traffic accidents since 2009 and a fall of 34 per cent in the number of people seriously injured.

Nationally, car occupants are the road user group with the greatest number of casualties and fatalities each year, representing 59 per cent of all casualties and 44 per cent of all fatalities in 2018. This is not surprising as cars account for 78 per cent of all the traffic on British roads. However, in terms of casualties per mile travelled, the most vulnerable road users are pedestrians, pedal cyclists and motorcyclists. All three groups had a much higher casualty rate than car users, with motorcyclists in particular having a much higher fatality rate. In terms of age, casualty rates for children and young people aged up to 24 continued on a downward trend in 2018. However, there was an increasing trend in the number of older casualties (aged 60 and over), which may be partly explained by the relatively rapid population growth among this group.

In the two counties in 2018, car occupants represented 45 per cent of all road users killed or seriously injured, compared to 39 per cent for the West Midlands as a whole and 36 per cent for England.⁹

In Great Britain in 2018, more people were killed on rural roads than urban roads¹⁰. In terms of all road users and pedestrians, 646 people were killed on urban roads and 1,030 on rural roads. As Table 3 following shows, nearly twice as many motorcyclists and more than three times as many car occupants were killed on rural roads than urban.

⁷ [ONS - Mid 2018: 2018 LA boundaries - Table MYE5](#)

⁸ [Dept. for Transport – Reported road casualties in Great Britain: main results 2018](#)

⁹ [Dept. for Transport - Reported casualties by severity, region, local authority and road user type, England \(Table RAS30043\)](#)

¹⁰ [Dept. for Transport - Reported casualty and accident rates by urban and rural roads \(Table RAS30018\)](#)

Table 3 - Killed and Seriously Injured Casualties by Road User and Road Type - Great Britain, 2018

2018	Urban Roads		Rural Roads		Motorways	
	<i>Killed</i>	<i>Seriously Injured</i>	<i>Killed</i>	<i>Seriously Injured</i>	<i>Killed</i>	<i>Seriously Injured</i>
Pedal Cycle	51	2,768	48	937	-	-
Motor Cycle	116	3,213	227	2,171	10	113
Car	150	3,380	558	5,395	69	555
Other	24	500	62	573	12	114
Pedestrian	305	5,030	135	730	16	21
	646	14,891	1,030	9,806	107	803

Note: in some cases vehicle, road class or road user type may not have been reported.

The Service's local incident data is not directly comparable with the national figures in Table 3 above. However, an analysis of incident data for the five years to 31 March 20 showed that 50 per cent of road traffic collisions (RTCs) attended were on rural roads and 39 per cent were on urban roads. The other 11 per cent were in areas classified as 'town & fringe'.¹¹ The analysis also showed that of 65 fatalities in RTCs attended between 2015-16 and 2019-20, 38 (58 per cent) were on rural roads and 22 per cent were on urban roads. The majority of fatal RTC incidents occurred on A roads (41 fatalities or 63 per cent), 17 were on smaller B and C roads, while there were just 4 fatalities on Motorways (included in Urban Roads in Table 4 below).

Using the five years data to 31 March 2019, the following table (Table 4) shows the distribution of fatalities by road user type in RTCs attended by the Service in the two counties. It does not mirror Table 3 as the Service records some RTCs as 'multiple vehicle' incidents, though there is a similar pattern to the national statistics, with the majority of fatalities in RTCs occurring on rural roads.

Table 4 - Fatalities in RTCs attended by HWFRS by Road User type - 2015-16 - 2019-20

2014/15 – 2018/19	Urban Roads	Rural Roads	Town & Fringe	Motorways	Total fatalities in RTCs attended
<i>No. of fatalities</i>					
Pedal Cycle	0	0	0	0	0
Motor Cycle	0	1	0	0	1
Car	8	18	1	1	27
Other/Lorry/HGV	1	2	0	1	3
Pedestrian	n/a	n/a	n/a	n/a	n/a
Multiple Vehicle	5	17	12	2	34
TOTAL	14	38	13	4	65

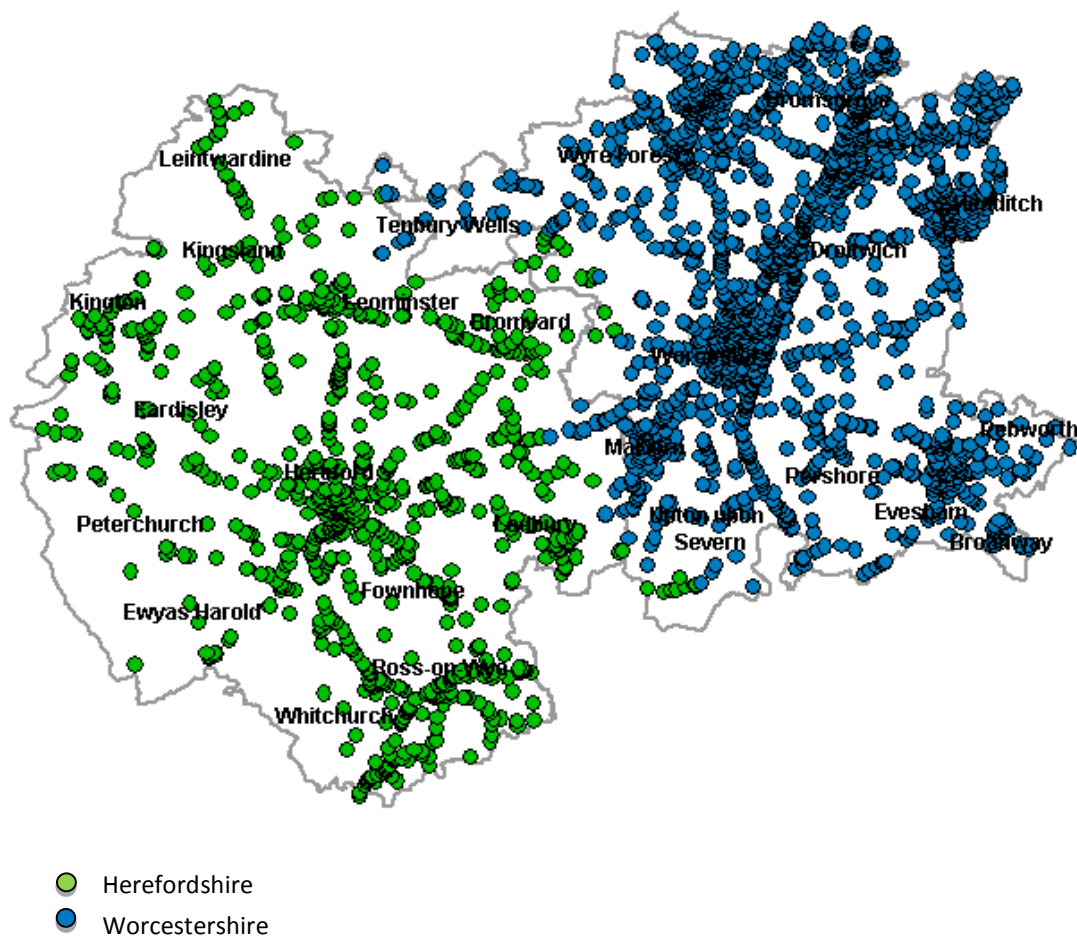
Fire and Rescue Services are not called to as many RTCs as the Police, as most are resolved without the need for our intervention. Between 2015-16 and 2019-20 Hereford & Worcester Fire and Rescue

¹¹ For further information see [Guide to applying the Rural Urban Classification to data](#), DEFRA July 2016.

Service attended 3,215 road traffic collisions, of which 968 were in Herefordshire and the majority (2,247 or 70 per cent) were in Worcestershire. Three-quarters of these incidents involved the Service making the vehicle or accident scene safe (2,396 incidents or 75 per cent) and 612 (19 per cent) were to release people who were trapped. More than half of all the RTCs attended involved at least one casualty¹² (1,749 incidents or 56 per cent) and the total number of casualties in these incidents was 2,680.

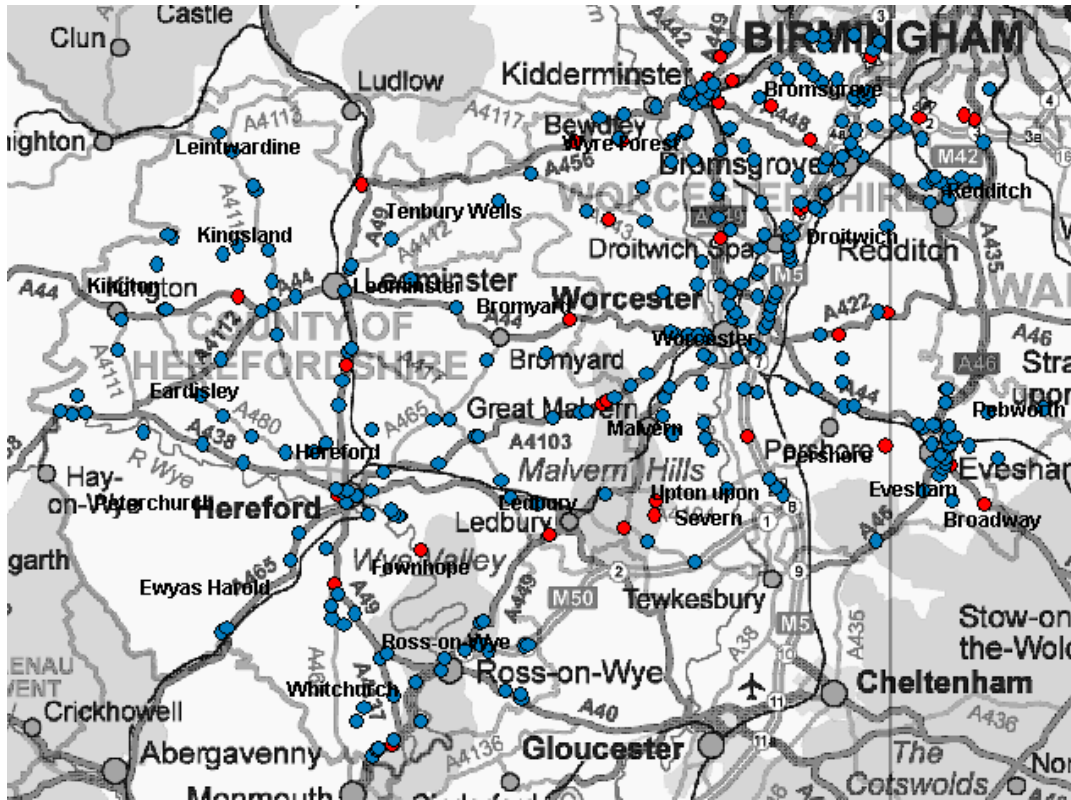
Maps 1 and 2 below show the distribution of RTCs attended over the five years 2015-16 – 2019-20, indicating a wide spread of incidents across the two counties and centred on the main road networks.

Map 1 - RTC incidents attended 2015-16 – 2019-20



¹² A casualty includes a number of categories - Fatality; Serious (casualty went to hospital, injuries appear to be serious); Slight (casualty went to hospital, injuries appear to be slight); First Aid given at the scene.

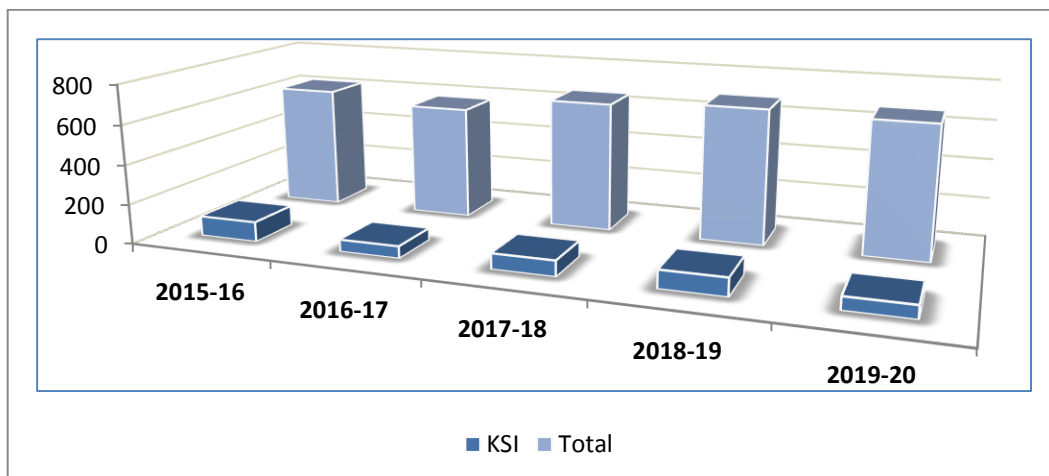
Map 2 - Fatal and Serious RTCs attended 2015-16 – 2019-20



- RTC incidents attended involving a fatality
- RTC incidents attended where a casualty went hospital with injuries that appeared to be serious

Of the 2,378 casualties (excluding rescues) in RTCs attended by the Service, 65 were fatalities, 332 were seriously injured, 1,192 were slightly injured and 384 were given first aid. Figure 2 below shows that one in eight (12 per cent) of RTCs attended over the last five years has involved a person killed or seriously injured (KSI). These incidents are not only traumatic for the casualties and their families, but they can also have a traumatic impact on the firefighters and other emergency services who attend them.

Figure 2 - Proportion of fatal and serious RTCs attended 2015-16 – 2019-20



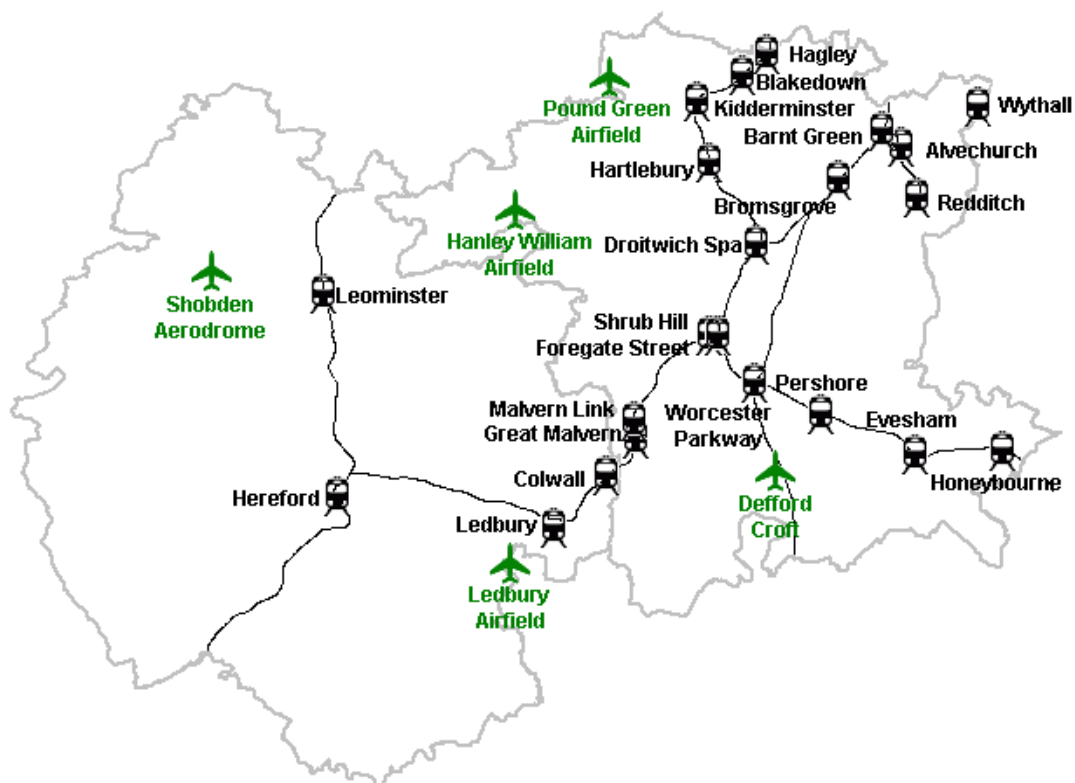
Both counties have ambitious plans to promote public transport improvements, particularly for sustainable modes such as walking and cycling. Their aims include reducing overall road congestion and improving road safety as well as promoting healthier lifestyles. The current lack of buses in rural areas is seen as creating poor access to services for rural communities and a contributory factor in the high number of short car journeys across the two counties.

Rail, Air, Canals/Waterways

There are 22 railway stations within the two counties, though Herefordshire only has four of these. Mainline links to Birmingham, London, Bristol and Cardiff are centred on the two main railway stations at Worcester and Hereford. A major new railway station at Worcester Parkway near Norton, between Pershore and Junction 7 of the M5 Motorway, opened in February 2020. Worcestershire is also home to the popular tourist attraction of the Severn Valley Railway with steam locomotives taking passengers 16 miles between Kidderminster and Bridgnorth in Shropshire.

There are also five small airfields in the two counties, which are primarily used for small aircraft and gliders. Railway stations, railway lines and airfields are shown in Map 3 below.

Map 3 - Railway Stations and Airfields



There are over 100 miles of canals and navigable rivers running through Herefordshire and Worcestershire, providing opportunities for boating and other water-based leisure pursuits and sports. There are no canals in Herefordshire, though there are plans to open stretches of the former Herefordshire & Gloucestershire Canal, and the River Wye provides most of the boating

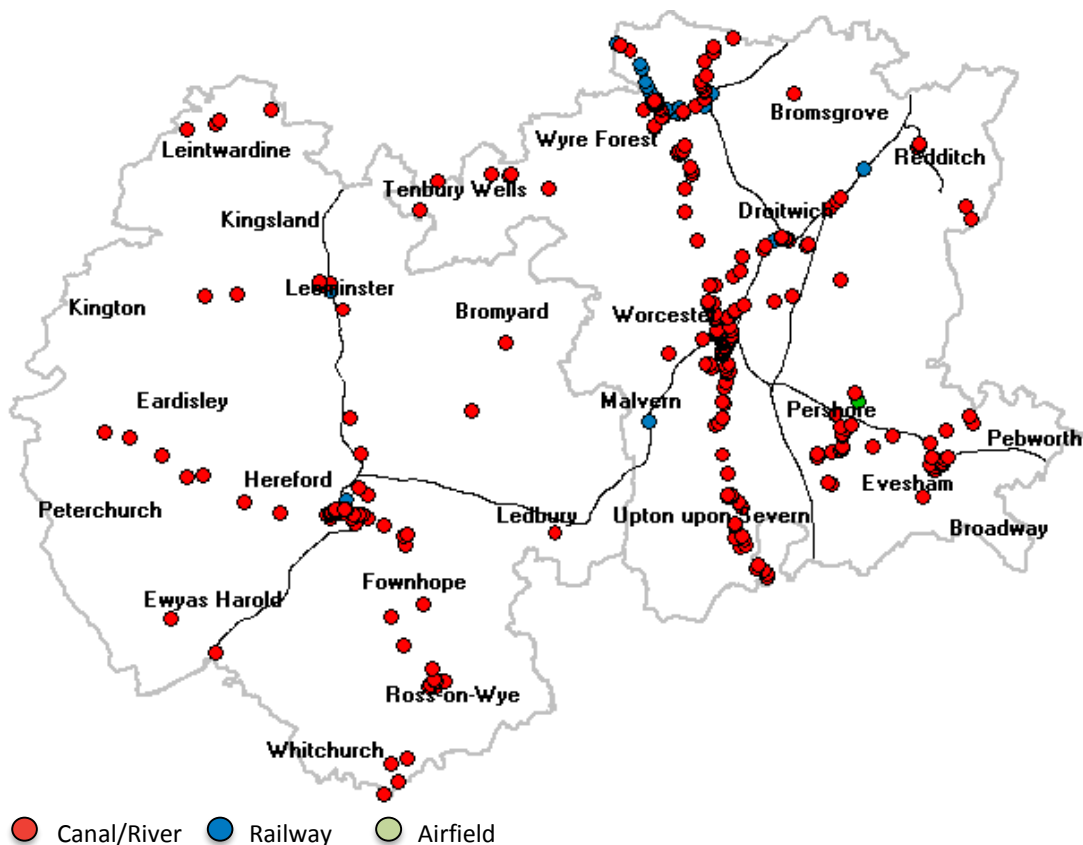
opportunities, particularly canoeing at Symonds Yat. Worcestershire has a more extensive network with the Rivers Severn and Avon open for river cruising and there are three navigable canals. The Staffordshire & Worcestershire Canal runs north from Stourport Basin, while the Worcester & Birmingham Canal runs from Diglis Junction in Worcester towards Birmingham and joins with the Droitwich Junction Canal. The long canal towpaths are also popular for walkers and cyclists.

Risk Factors

While there are not as many incidents on the railways, airfields and canals/waterways as there are on the roads, the Service still attended 409 incidents between 2015-16 and 2019-20. There were 78 casualties in these incidents, 76 of whom were involved in canal/waterway incidents. The majority of incidents (387 or 95 per cent) involved canals/waterways, where there were 28 fatalities and 11 seriously injured casualties over the five years. There were 21 incidents on the railways with two people seriously injured, and just one airfield incident with no casualties. There were also 121 secondary fires near the Severn Valley Railway line.

Map 4 following shows the location of the railway, airfield and canal/waterway incidents attended over the five years 2015-16 to 2019-20, and Map 5 shows the location of casualties in those incidents. It should be noted that the cluster of railway incidents between Bewdley and Kidderminster mostly involved trackside fires along the Severn Valley Railway line.

Map 4 - Rail, Air, Canal/Waterway incidents 2015-16 – 2019-20



Map 5 - Casualties in Rail, Air, Canal/Waterway incidents 2015-16- 2019-20

