COMMUNITY RISK MANAGEMENT STRATEGY

2015-2020

West Yorkshire
Fire & Rescue Service

Making West Yorkshire Safer
www.westyorksfire.gov.uk

Contents

1. Foreword

Welcome to West Yorkshires Fire and Rescue Services (WYFRS) second Community Risk Management Strategy. This document explains how we identify, assess and manage risk in West Yorkshire. It also provides information on how we deliver our services.

Our previous strategy highlighted that WYFRS was facing its biggest ever challenge because of a significant budget deficit. This situation still prevails in line with the public sector austerity programme. Our latest strategy, therefore, continues to underpin a flexible approach to managing risk and future efficiency savings.

Despite the financial challenges, we have not lost sight of our ambition of 'Making West Yorkshire Safer'. We are proud to present this strategy at a time when accidental dwelling fires and fire related deaths and injuries are at their lowest ever level. Whilst the Service celebrates the success of risk reduction initiatives, we accept that there is no room for complacency. We know that certain individuals and groups, for example older people, are at much higher risk from fires and other emergencies. An ageing population and an increasing number of vulnerable individuals will therefore test our resolve in the coming years.

WYFRS is ready to face these challenges. It is undergoing an unprecedented modernisation programme to ensure the most efficient and effective use of resources. This includes a commitment to build nine new fire stations to provide optimum performance for emergency response.

In May 2013, the Chief Fire and Rescue Adviser, Sir Ken Knight, published a report entitled 'Facing the Future'. It highlights the huge reduction in fires and emergency calls over the last decade, and the pivotal role that fire and rescue services are playing in this success. Members of Sir Ken Knight's review team visited WYFRS and several examples of our efficiency initiatives are included within the report. The report acknowledges that fire and rescue authorities need to transform themselves to reflect an entirely different era of risk, which is the approach being adopted in West Yorkshire.

This Strategy acknowledges that risk is not static and that it changes over time. It also recognises the huge variation in risk levels across the county and the need for different solutions to address these. It therefore provides the foundation to deliver services in a risk-proportionate manner, while providing opportunity for the Service to build upon

previous successes. Our integrated and hierarchical risk management approach of prevention, protection, response and resilience, remains constant irrespective of change.

Our Community Risk Management Strategy provides the means to rise to present and future challenges. It provides the means to deliver excellent but cost-effective fire and rescue services to West Yorkshire's communities. Our presence in the heart of the community and within local partnerships will help us to target those who are in most need of our assistance; and we encourage all stakeholders to engage with us, in making West Yorkshire safer.

Simon Pilling QFSM MA MSc DMS GIFireE

Chief Fire Officer/Chief Executive

2. About Us

West Yorkshire Fire and Rescue Authority (WYFRA) is a local authority with corporate status. The Authority comprises of 22 members appointed in accordance with a statutory formula by the five constituent authorities in West Yorkshire; Bradford, Calderdale, Kirklees, Leeds and Wakefield. WYFRA is responsible for providing fire and rescue services for the county and a wider range of associated duties imposed by the Fire and Rescue Services Act 2004 and the Civil Contingencies Act 2004. The Authority achieves this via services delivered through West Yorkshire Fire and Rescue Service (WYFRS).

WYFRS provide fire and rescue cover 24-hours a day, every day of the year. A brand new central control room located in Leeds receives 999 calls and other requests for emergency assistance. An appropriate response to emergencies is then made from the nearest fire stations using a modern fleet of fire appliances and highly trained firefighters.

Our firefighters are ready to cope with a wide range of emergencies, and not just fires. These include: road traffic collisions, floods, chemical spillages and complicated rescues. The primary role of our firefighters is, however, to stop fires and other emergencies happening in the first place. Dedicated Prevention and Protection departments support them in doing this by delivering various risk reduction initiatives.

Over the last four years, the Authority has lost over £12.6m (22%) of its government funding and is anticipating that it will face similar cuts over the next four years, as the government continues to reduce public spending. The Authority is in the process of implementing a service wide restructure, which involves investing in a programme of station rationalisation to deliver long-term sustainable financial savings as well as releasing significant land assets for sale. However, if the financial forecast is accurate then this will not deliver all the savings required. Consequently, the Authority will continue to examine all areas of service to achieve the additional savings that will be required over the next five years.

The challenge for this Community Risk Management Strategy is to provide the means to manage the diverse risks in the county using finite resources.

3. Expectations

It is important that stakeholders understand the expectations of their fire and rescue service and the standards of service they can expect to receive.

The Fire and Rescue Services Act 2004 empowers local fire and rescue authorities to deliver a wide range of activities, imposing a duty on each fire and rescue authority to plan and provide arrangements for:

- fighting fires
- responding to road traffic collisions
- responding to other eventualities such as chemical spillages, environmental protection etc
- protecting life and property in their respective areas

Section 21 of the Fire and Rescue Services Act requires the Secretary of State to provide a National Framework for fire authorities. The purpose of the Framework is to provide overall strategic direction and support rather than to interfere in the way in which fire authorities serve their communities. It therefore gives each fire and rescue authority freedom and flexibility to deliver their services without government prescription.

The National Framework's high-level expectations of fire and rescue authorities include:

- identifying and assessing all foreseeable fire and rescue related risks
- making provision for prevention and protection activities and responding to incidents appropriately
- working in partnership with communities and partners locally and nationally to deliver services; and
- providing appropriate levels of accountability, assurance and transparency to local communities.

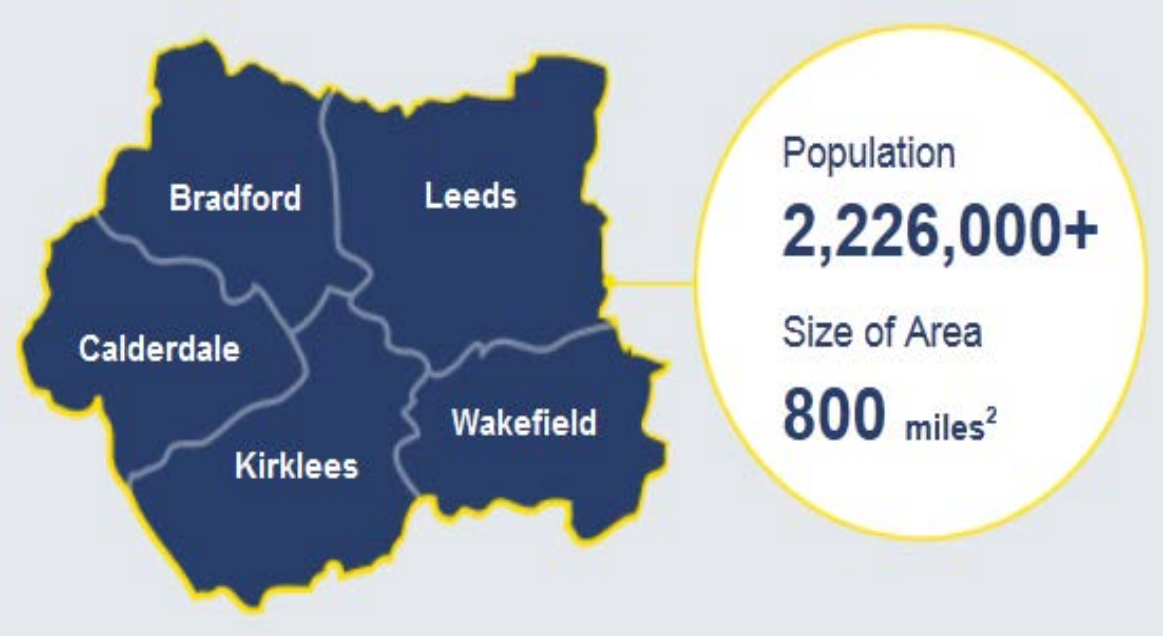
These expectations are reflected by our four Strategic Priorities to:

1) deliver a proactive fire prevention and protection programme
2) deliver a professional and resilient emergency response service
3) provide a safe, competent and diverse workforce
4) provide effective and ethical governance and achieve value for money in managing resources

Our Service Plan 2015 – 2020 complements this document and provides more detail regarding specific objectives that underpin our Strategic Priorities.

4. Demographic Profile

West Yorkshire currently has a population of around 2.2 million but this is growing. The five county districts of Bradford, Calderdale, Kirklees, Leeds and Wakefield cover an area of 800 square miles. West Yorkshire has a network of motorway and trunk roads allowing easy access to and from our population centres, whilst access to our picturesque rural and remote areas can be more challenging. The landscape in our county provides a unique mixture of urban and industrial centres contrasting with large expanses of countryside, moorland and inland waterways. Our communities are equally varied and include a diverse range of ethnic, cultural and economic backgrounds. Economic variance is stark, ranging from the second largest financial sector to some of the most deprived wards in the country. The demographic profile of the county therefore presents particular challenges for delivering cost effective services.



4.1. Bradford district

Bradford district covers an area of approximately 140 square miles with a population of around 522,500 and is ethnically, culturally and geographically diverse. The district contains 30 electoral wards and there is a wide variation in the population density within these, from the least densely populated Worth Valley ward to the most densely populated Toller ward.

The city is well connected with the outside world, having a short motorway (the M606) linking it to the M62 trans-Pennine route. There are also two main railway stations at Forster Square and Bradford Interchange.

Parts of Bradford have some of the highest levels of deprivation in the country, while others are amongst the least deprived. Risk within the district varies from small, rural and affluent towns such as Haworth and Ilkley to the large and densely populated Bradford City. Bradford was once a centre for the textiles industry, but this fell into decline from the mid-20th century. The economy has since diversified though and the district is now home to large finance, manufacturing and retail sectors. Bradford has emerged as a tourist destination, becoming the first UNESCO City of Film with attractions such as the National Media Museum, Bradford City Park, Alhambra theatre and Cartwright Hall. The district is home to a university, three hospitals and several large developments, including a 1.1 million square foot distribution centre for Marks and Spencer and the new Westfield retail development in the City. Risk in the district is therefore diverse and in parts significant.

4.2. Calderdale District

Calderdale district has 17 electoral wards and a population of 204,200. The district is comprised of the former county boroughs of Halifax, the boroughs of Brighouse, and Todmorden and the urban districts of Elland, Hebden Royd, Ripponden, Sowerby Bridge, parts of Queensbury and Shelf and Hepton Rural District. Halifax is the main commercial, cultural and administrative centre in the district, having numerous high street chain stores, commercial properties, a large hospital and several large educational buildings. Calderdale covers part of the South Pennines and the southernmost point of the Yorkshire Dales. Risk within the district varies from isolated and remote rural villages to large and densely populated towns. In recent years, Calderdale has experienced several damaging floods and a number of large moorland fires.

4.3. Kirklees District

The Metropolitan Borough of Kirklees has a population of 401,000 including the settlements of Batley, Birstall, Cleckheaton, Denby Dale, Dewsbury, Heckmondwike, Holmfirth, Huddersfield, Kirkburton, Marsden, Meltham, Mirfield and Slaithwaite. Huddersfield is the largest town within the district, having a large shopping complex, a significant concentration of commercial properties, a university and a large hospital. The district also contains several large industrial and chemical manufacturing sites falling within the scope of the Control of Major Accident Hazard (COMAH) regulations. Risks within the district therefore vary from densely populated towns and large textile and pharmaceutical manufacturing to rural and picturesque villages.

4.4. Leeds District

Leeds is comprised of 33 electoral wards and is the largest and most densely populated district in the county. It has a population of around 757,700, contains 321,000 dwellings

and over 28,000 commercial properties. Leeds is therefore the financial and commercial focus of West Yorkshire. The district has the second highest population of all United Kingdom local authority districts and the second largest area. The city centre has a very diverse population with 140 different ethnic groups forming 17% of the total population. The city is the location of one of the largest financial centres in England outside London. Its economy depends upon several different business sectors including manufacturing, public administration, health and education.

Leeds is the principal regional shopping centre for the whole of the Yorkshire and Humber region. Its three universities mean that the city has one of the largest student populations in the country and is a hotspot for nightlife having many pubs, bars, nightclubs, restaurants and several live music venues including a 13,500 capacity seated arena. The district has seven large hospitals providing emergency and specialist treatment services. The city centre and suburban wards of Leeds therefore present significant risk.

4.5. Wakefield District

Wakefield district is comprised of 21 electoral wards and has a population of 325,800. Risk is diverse across the district, with the main centres of population in Wakefield city; and the five town areas of Pontefract, Castleford, Knottingley, Normanton and Featherstone. Other towns include Ossett, Horbury, Hemsworth, South Elmsall and South Kirkby and several scattered villages in the open countryside. The district's economy declined in the last quarter of the 20th century as coal mines and traditional manufacturing industries closed contributing to high rates of unemployment. Regeneration projects like the Trinity Walk retail development are helping to stimulate the district's economy. The public sector accounts for around a quarter of the district's total employment, but there is also significant employment within retail and manufacturing industries. The district has three hospitals, hosts the county's air ambulance response service and has several large further education buildings.

4.6. Infrastructure

West Yorkshire is of strategic importance to Yorkshire and to the north of England. The main arterial routes linking the North to the South (M1 and A1 motorways) and East to West (M62 motorway) pass through the county, as well as internal urban motorways in Leeds and Bradford. Around 144,000 vehicles travel through West Yorkshire every day using the M62 motorway and around 113,000 vehicles use the stretch of the M1 passing through the county. Both motorways have several areas that are prone to accidents and gridlock, but are benefitting from major investment in a managed motorway network scheme.

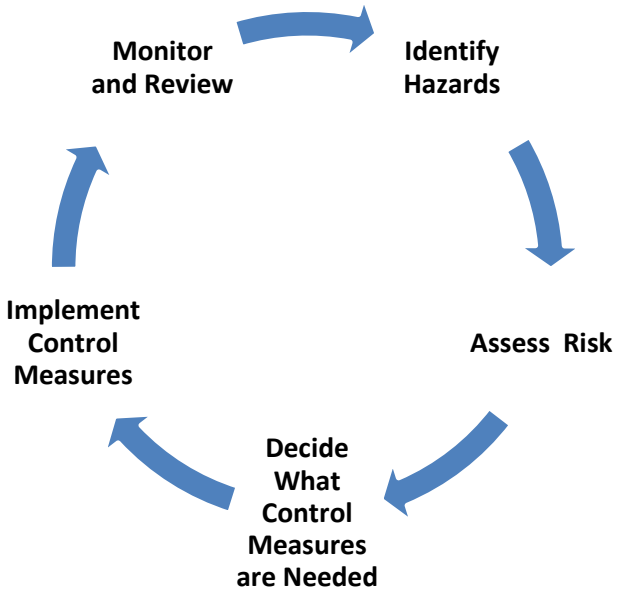
The county has two mainline railway stations located at Leeds and Wakefield Westgate. Leeds railway station has 17 platforms, making it the largest by number of platforms in England; it is also the busiest railway station in the north of England and the third outside of London. Unlike South Yorkshire, the county has no light transit system. Proposals for a Leeds Supertram system failed to attract government funding, but the Department for Transport is considering a new Trolleybus scheme for the city.

West Yorkshire is host to Yorkshire's largest airport. Leeds and Bradford International Airport is located within eight miles of both cities. The airport is a vital transportation gateway for the Yorkshire and Humber Region and provides links to several national and international destinations. The airport is also home to Multiflight, a flight training and aircraft engineering organisation providing helicopter and fixed wing charter flights as well as aircraft sales and management.

Finally, West Yorkshire has several inland waterways comprising of rivers and canals. There are 19 rivers running through West Yorkshire, but most are only navigable in short sections. The use of canals is increasing, particularly for leisure, but also for transferring large quantities of waste. The Leeds to Liverpool Canal spans 127 miles and crosses through the Pennines, whereas the Calder and Hebble Navigation Canal links Calderdale to Wakefield. The Huddersfield Narrow Canal is 19.9 miles long and incorporates Standedge Tunnel. The tunnel has one working rail tunnel and a canal tunnel; it is 16,499 feet long and is the longest, deepest and highest canal tunnel in the United Kingdom.

5. The Risk Management Process

There are several different risk management models operating in fire and rescue services but they all adopt the risk model illustrated below:



In the context of fire and rescue services we deem risk as the probability of a hazard or threat occurring and the resulting impact. Risk management is therefore a process we use for identifying, assessing and prioritising the likelihood of something happening followed by appropriate means to remove, reduce or control the impact.

For service delivery purposes, we consider several categories of risk posed to communities, businesses and our employees. They range from the more obvious risks such as fire, road traffic collisions and flooding, to those reflecting different demographics for areas, for example deprivation levels. Independent risk management specialists have reviewed and validated our bespoke risk management process.

We recognise the importance of using a full range of information sources to help us evaluate risk. The most accurate predictors of risk are however:

- demographic profiles for each area of the county, and;
- historical information of fires and other emergencies

By combining these two pieces of information, we are able to identify geographic areas that are at higher risk from fires and other emergencies.

5.1. Identifying Risk

WYFRS continue to devote significant resources to identifying and assessing risks posed to its communities. Advancements in modern technology are helping us to gain a better understanding of the complex components that influence risk. The following paragraphs describe some of the facilities that assist us in identifying and assessing risk levels.

5.1.1.Independent Modelling

For emergency cover arrangements, independent risk modelling now forms part of our risk management process.

This is highly complex and combines resource optimisation, routing and simulation software with operational incident data to provide a risk profile of the county. The modelling also helps us to identify the best location to position resources and the impact of change upon risk levels and emergency response times.

Independent modelling has supported several proposals to change the number and location of operational resources. These proposals include reducing the number of fire engines, closing and merging fire stations and introducing different working patterns. The modelling results provide stakeholders with detailed information of current and predicted risk and performance levels. They also provide assurance that proposed changes will not endanger communities or unduly increase risk levels.

5.1.2.Mosaic

Mosaic is a demographic profiling tool commonly used for market research. Developments to the original software have made it more attractive for use by local government organisations including fire and rescue services. This is because it classifies 24 million households in the United Kingdom by lifestyle type. There are close links between the risk of fire and certain lifestyle types, so the availability of this information is very useful for risk profiling.

Mosaic updates its information every year and this helps us to maintain a current demographic profile of our communities. The information also allows us to manage and target our resources to areas where they provide most benefit. It is therefore particularly useful for targeting risk reduction work.

5.1.3.Active Software

Active Informatics provides software applications to a variety of public sector organisations. The software helps to improve service delivery performance levels and reduce costs.

WYFRS currently use three modules from the Active software. The Total Solution Mapping™ module is a spatial information facility that assists us to model travel times and plot optimum response routes. The Travel Time Boundary module allows us to create mapping layers and to overlay or manipulate travel time data. Finally, the Phoenix module allows us to measure performance by analysing resource workloads. It assists us

in modelling emergency response deployments and various duty systems to identify efficient emergency cover options.

We mainly use this software package for resource management, and it therefore contributes to the management of risk rather than its identification and assessment. One of the key benefits of the software is that it presents options to reduce costs and increase efficiency. The software also complements independent modelling predictions for the relocation of resources, for example, repositioning fire stations or the temporary relocation of fire engines.

5.1.4.Fire Services Emergency Cover (FSEC) Toolkit

The FSEC toolkit is a software product developed and provided to each fire and rescue service by central government. The toolkit helps fire and rescue services to assess the risks from fire and other emergencies. It also incorporates a facility to run various resource scenarios to help inform where resources are best located to reduce the number of fatalities and casualties.

The toolkit provides risk assessment outputs derived from a relationship between emergency response times and fatality rates for each different category of emergency event. Bespoke software calculates emergency response times for each Census Output Area and then applies a mathematical relationship to predict details for loss of life, property damage and service delivery costs.

WYFRS have configured the FSEC toolkit to reflect the demographics and resource availability for the county. Cloning changes to the base level information allows us to compare results against the original outputs. This process therefore helps us to predict the impact of changes to our resources.

The FSEC toolkit continues to provide some continuity in the risk assessment process undertaken by fire and rescue services. It is, however, somewhat limited in its application and unsuitable for some of our risk modelling requirements.

5.1.5.Geographical Information Systems

Geographic information systems (GIS) can capture, store, analyse, manage and present all types of geographical data, merging elements of cartography, statistical analysis and computer modelling technology.

We use various GIS platforms to assist in identifying and assessing risk levels for different areas of the county. Generally, they enable us to use interactive maps linked to data sources to illustrate risk patterns and resource locations.

5.1.6.Census Data

The census is a systematic process for acquiring and recording details about the population in the United Kingdom. The census includes everyone in our society and is the main way of accurately measuring the changing nature of the population. It provides a wide range of demographic information that is essential for planning and providing local services that people rely on.

We use the census data to help us understand our local communities and ensure that we provide appropriate services in each geographical ward. Some of our management toolkits use census data as part of their risk profiling capability. The data also helps us to identify areas of the county or groups that may be at higher risk from fire and other emergencies. Examples of these would be areas of higher deprivation and those with disproportionate numbers of older or vulnerable people.

5.1.7.Index of Multiple Deprivation

The Index of Multiple Deprivation (IMD) is comprised of 38 different indicators grouped into seven main domains: income, employment, health, education, crime, access to services and living environment. The government refresh the dataset every three years and use it to calculate grant funding.

The IMD provides an indication of risk because areas that are more deprived tend to have a higher incidence of fire. The limitation of the IMD is that it uses a very broad range of indicators and some of these have no application to fire and rescue service activities. As a result, we are unable to reduce risk unilaterally to the extent that it influences the IMD, however, we work with partners to support initiatives targeting improvements in the seven areas referred to above.

5.1.8.Local Plans (LP)

LPs form the basis for planning within each Local Authority and set the long-term strategy for Boroughs and Districts. They highlight how demographic profiles are changing and what local authorities plan to do to address this. The plans and supporting documentation provide useful information regarding population growth, new housing developments, business and leisure developments, growth or decline in employment levels, environmental issues and planned improvements to reduce traffic congestion.

The content of LPs is important to our risk management planning, because changes to local demographics and local authority services can influence our risk profiling. We do, however, adopt a balanced approach to area proposals as there are many challenges to implementation. The economic downturn, for example, is preventing the implementation of a number of development schemes.

5.1.9.National Risk Register

National risk assessments capture a range of emergencies that might have a major impact upon parts of the United Kingdom. They provide an indication of risk associated with a series of hazards and threats and help to inform local and regional risk assessments, for example the Community Risk Register.

The Civil Contingencies Act 2004 drives the assessment process by defining emergencies and the responsibilities of those responding to them. The National Risk Register therefore collates details for risk and threat assessments undertaken falling within the scope of the Act. Examples of assessments include; severe weather, pandemics, acts of terrorism and major accidents.

5.1.10.Community Risk Register

Local Resilience Forums operate within each region of the United Kingdom. They are multi-agency partnerships comprised of public services representatives, including the emergency services, local authorities and other organisations, for example utility companies.

Local Resilience Forums plan and prepare for localised incidents and catastrophic emergencies. They work to identify potential risks and produce emergency plans to either prevent or mitigate the impact of any incident on their local communities. In West Yorkshire these risks are transferred onto a Community Risk Register.

5.1.11.Climatic Changes

The United Kingdom's climate and weather patterns are changing. Global temperatures are rising, causing more extreme weather events, such as flooding and heat waves. Every five years the government publishes a Climate Change Risk Assessment that highlights the potential impact of climate change in the United Kingdom. WYFRS considers the content of this assessment as part of its own analysis of climate change. WYFRS also work closely with partner agencies, for example the Met Office and the Environment Agency to help prepare the county and region for the potential impacts of climate change.

5.1.12.English Heritage Register

West Yorkshire has some major historic buildings and landmarks. These sites are part of our national heritage and are irreplaceable. It is therefore important that these buildings and their contents are protected from damage by fire. English Heritage maintains a database of all nationally designated heritage assets including, for example, listed buildings. WYFRS use this data base and local knowledge to help identify heritage sites of specific interest. WYFRS then work together with the owners and management of these sites to develop contingency plans.

5.1.13.Historic Data

WYFRS log detailed information for every emergency call received. We therefore have a substantial amount of historic data that assists us to identify areas which place greater demand on our resources and trends in incident types. More importantly, this data is outcome based and real. It provides an excellent indication of risk and emergency response times and therefore a baseline for risk modelling.

We use this data to monitor performance and to evaluate the success of risk reduction activities. It also helps us to identify the impact of change upon average emergency response times into each geographic ward and if workloads for resources are increasing or decreasing. Current emergency response data is a key requirement for the risk modelling processes and normally we use a minimum of three full years information to provide a reliable data set.

5.2. Assessing Risk

Risk assessment is a careful examination of what has the potential to cause harm, what the impact of this is and the likelihood of this happening. There are a number of factors influencing the safety of local communities and businesses. These factors include the demographic profile of our communities and fire protection and engineering solutions incorporated into commercial properties. All of these require consideration during the risk assessment stage.

Historic incident data provides a good indication for the severity and likelihood of emergencies occurring. Events that have the potential to cause loss of life and serious injury naturally require greater attention than those of lesser impact, for example, damage to property. Historic data also helps us to profile trends in particular types of emergencies and highlight where they are more likely to occur.

5.2.1. Risk Matrix

We use a bespoke Risk Matrix to help us capture, assess and quantify the risk presented by fire and other emergencies. The matrix collects information for 20 separate risk indicators. Nine of these indicators reflect the outcome of emergencies attended by WYFRS within the most recent three year period. Other indicators reflect a wide range of factors, including local demographics and the safety of commercial properties.

The Risk Matrix incorporates a calculation formula, which allows us to determine a risk score for each of the 124 wards within West Yorkshire. These scores then determine risk bands; very high, high, medium, low and very low risk.

The diagram on page 19 shows an extract of the Risk Matrix and how we colour code each ward to represent its respective risk band.

We refresh the Risk Matrix information annually using a three-year rolling data set. The risk level in wards generally fluctuates from year to year and is subject to disproportionate influence by random spikes in emergency incidents. We therefore plan the delivery of our services using a three yearly update of the Risk Matrix. This provides a more robust and balanced reflection of risk in each geographical ward.

5.2.2. Risk Mapping

Risk maps provide a useful illustration for the distribution of risk across the county. Simplistically we use them to show where areas of higher risk are located using a straightforward colour coding system, linked to that on the Risk Matrix. More complex risk maps overlay detail, for example, the location of our resources and emergency response footprints. We also use risk maps to illustrate risk levels within smaller geographical areas to wards, such as Lower Super Output Areas and Output Areas.

The diagram on page 18 shows the current risk ratings for each of West Yorkshire's wards and the location of fire stations (2013).

5.3. Managing Risk

The Service manages in a hierarchical manner using four different methods:

1. **Prevention** – stopping fires and other emergencies from occurring
2. **Protection** – making sure that buildings are safe places and provide adequate protection from harm should an incident occur

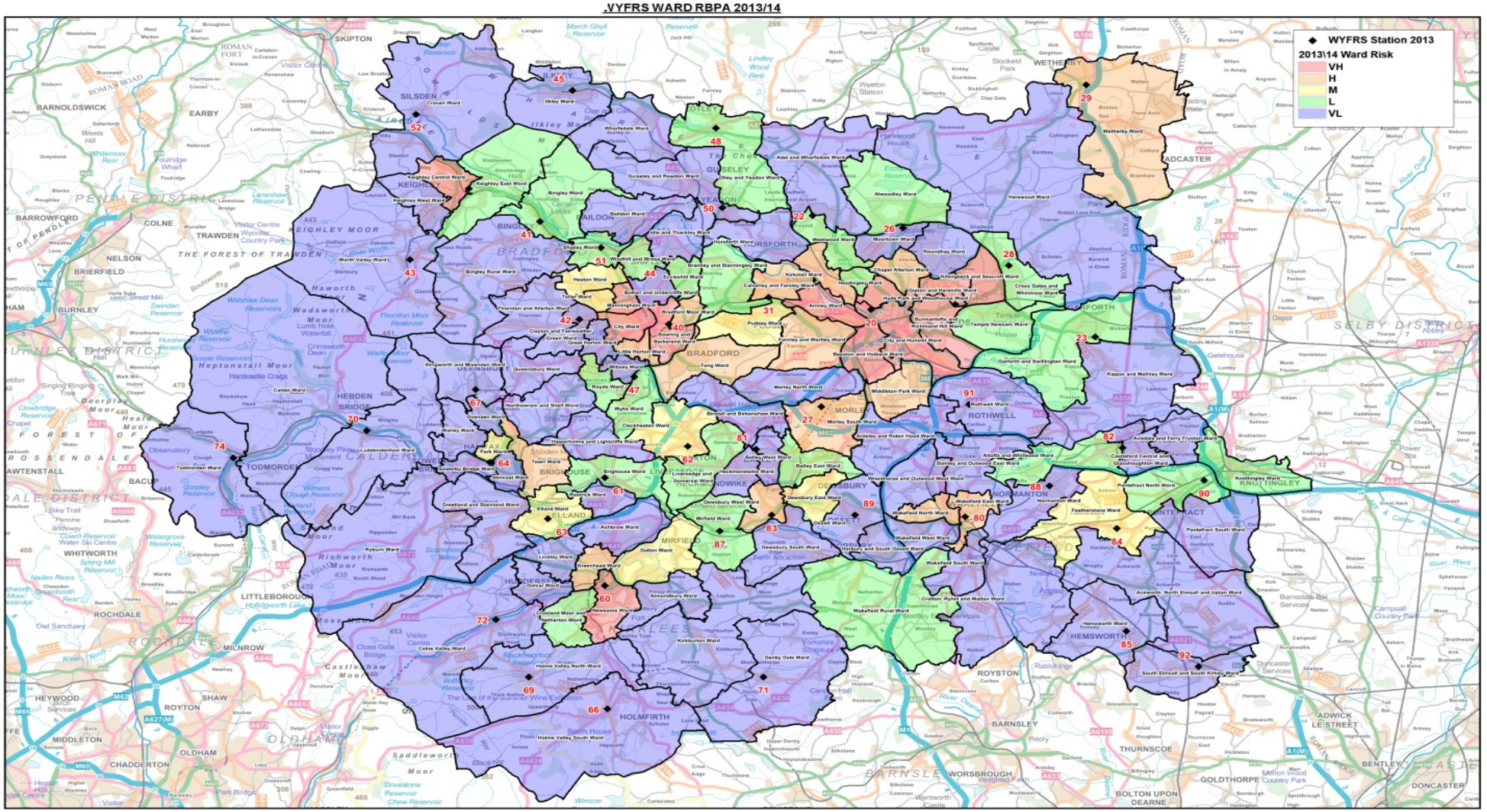
3. **Response** – providing an effective response to emergency incidents when prevention and protection measures have failed
4. **Resilience** – ensuring that we can continue to deliver our services irrespective of major unplanned or unforeseen events

Our risk management philosophy is firstly to reduce the likelihood of fires and other emergencies by undertaking risk reduction activities. When emergencies do occur, we aim to conclude them using emergency response resources. Finally, we take all threats that may jeopardise service delivery very seriously and business continuity is integral to our organisation. Applying this tiered risk management approach is of key importance in 'Making West Yorkshire Safer.'

Extract from the Risk Matrix

Risk Indicator		3 Year Mean HIS	Hazard Indicator Score	Arson			Actual Rescues		Total Activity		Dwelling Fires		Non Domestic Building Fire		Prevalence of false alarms		Fire related Injuries and Deaths		RTC	
Description				Arson fires based on deliberate primary & deliberate secondary. Data from previous fiscal year.			Rescues carried out by WYFRS from fires & life risk special service calls. Data from previous fiscal year		All incidents within a station area. Data from previous fiscal year		Dwelling fires in a station area. Data from previous fiscal year		All non-domestic building fires within a station area. Data from previous fiscal year		False alarms including apparatus, good intent and malicious. Data from previous fiscal year		Number of injuries and deaths to members of public and firefighters caused by fire related incidents. Data from previous fiscal year		Number of road traffic collisions in station area. Data from previous fiscal year	
Data Source				DATA TEAM		DATA	DATA TEAM	DATA	DATA TEAM	DATA	DATA TEAM	DATA	DATA TEAM	DATA	DATA TEAM	DATA	DATA TEAM	DATA	DATA TEAM	DATA
Lead Directorate				FSCR			OPS		OPS		OPS		FSCR		FSCR		FSCR		OPS	
Measure																				
Risk Parameter	VH	>=95		(P>=42) (S>=197)			>=17		>=1195		>=25		>=33		>=775		>=8		>=22	
	H	>=65		(P>=22) (S>=106)			>=9		>=643		>=14		>=18		>=417		>=5		>=12	
	M	>=55		(P>=16) (S>=76)			>=7		>=460		>=10		>=13		>=298		>=3		>=9	
	L	>=49		(P>=10) (S>=45)			>=4		>=276		>=6		>=8		>=179		>=2		>=5	
	VL	<49		(P<10) (S<45)	P	S	<4		<276		<6		<8		<179		<2		<5	
Risk Multiplier					1	1		1		1		1		1		1		1		1
City and Hunslet Ward		309	278	16	33	138	37	32	38	1302	22	34	68	35	53	889	19	5	27	27
City Ward		188	139	11	26	93	10	9	20	700	16	24	33	17	27	458	11	3	10	10
Bowling and Barkerend Ward		139	101	13	27	112	11	10	14	481	11	17	21	11	15	252	0	0	16	16
Gipton and Harehills Ward		132	95	8	21	69	6	5	13	452	21	33	4	2	17	289	15	4	11	11
Armley Ward		127	114	13	47	94	15	13	12	426	33	51	19	10	11	189	4	1	6	6
Burmantofts and Richmond Hill Ward		119	119	11	25	95	8	7	12	426	20	31	16	8	12	200	33	9	7	7
Killingbeck and Seacroft Ward		105	95	10	25	79	8	7	10	356	17	27	6	3	11	185	30	8	3	3
Hyde Park and Woodhouse Ward		104	95	4	15	31	10	9	9	314	19	30	18	9	12	207	15	4	7	7
Newsome Ward		103	71	4	13	29	8	7	11	361	10	16	14	7	14	227	4	1	7	7
Keighley Central Ward		102	96	7	29	52	11	10	8	280	17	26	25	13	8	138	15	4	4	4
Manningham Ward		99	67	6	13	59	11	10	9	314	5	8	6	3	11	177	7	2	11	11
Beeston and Holbeck Ward		97	74	11	33	84	10	9	9	316	15	23	6	3	8	142	4	1	11	11
Tong Ward		93	73	8	21	70	13	11	9	319	10	16	8	4	10	168	7	2	7	7
Bradford Moor Ward		83	69	10	19	92	7	6	8	282	15	23	6	3	7	113	11	3	5	5
Chapel Allerton Ward		80	47	2	5	19	8	7	6	198	13	20	2	1	8	136	4	1	4	4
Middleton Park Ward		78	63	14	33	121	3	3	9	306	13	20	8	4	7	113	7	2	2	2
Greenhead Ward		76	58	3	13	21	10	9	6	191	10	16	4	2	6	105	7	2	11	11
Wakefield North Ward		76	48	2	9	9	3	3	6	193	8	13	16	8	8	129	4	1	2	2
Farnley and Wortley Ward		75	67	7	20	58	10	9	7	243	10	16	8	4	7	114	11	3	7	7
Town Ward		74	59	4	12	34	11	10	8	265	8	12	10	5	9	156	4	1	5	5
Little Horton Ward		73	69	12	19	117	10	9	8	281	9	14	4	2	6	104	15	4	4	4
Dewsbury West Ward		72	42	5	13	43	6	5	7	239	7	11	6	3	8	139	0	0	3	3
Kirkstall Ward		70	72	5	25	33	9	8	6	219	12	19	10	5	7	116	15	4	8	8
Bramley and Stanningley Ward		69	65	8	21	67	7	6	8	273	7	11	2	1	8	136	19	5	7	7
Morley South Ward		68	72	2	4	22	14	12	6	221	9	14	8	4	8	130	11	3	14	14
Wakefield East Ward		65	32	4	8	37	3	3	6	192	6	9	2	1	7	110	4	1	1	1
Wetherby Ward		65	63	2	7	13	5	4	5	174	4	6	25	13	6	98	7	2	9	9
Dewsbury East Ward		64	40	4	6	38	8	7	6	196	6	10	4	2	7	109	0	0	5	5
Pudsey Ward		62	57	4	11	35	11	10	7	225	6	9	8	4	9	147	7	2	5	5
Dalton Ward		61	53	3	12	19	7	6	5	173	7	11	14	7	6	96	7	2	4	4
Toller Ward		61	60	5	14	40	5	4	7	235	11	17	10	5	8	129	11	3	4	4
Park Ward		61	38	2	9	14	5	4	5	184	7	11	8	4	7	111	0	0	4	4
Cleckheaton Ward		60	68	3	14	15	9	8	5	185	10	15	14	7	6	103	11	3	10	10
Featherstone Ward		58	42	4	8	34	10	9	4	129	2	3	6	3	3	55	7	2	6	6
Elland Ward		57	40	2	5	14	8	7	6	191	4	6	8	4	8	133	0	0	5	5
Heaton Ward		56	59	4	9	38	5	4	6	209	8	12	12	6	7	115	15	4	3	3
Alwoodley Ward		55	32	1	6	8	6	5	4	136	5	8	2	1	5	92	4	1	5	5
Keighley East Ward		55	50	3	7	25	10	9	4	144	6	10	10	5	4	59	7	2	6	6
Shipley Ward		54	36	2	6	11	8	7	4	143	5	8	4	2	5	92	4	1	4	4
Knottingley Ward		54	32	4	7	33	6	5	4	131	2	3	8	4	3	52	0	0	6	6
Liversedge and Gomersal Ward		54	34	3	17	15	6	5	4	122	6	9	2	1	4	65	4	1	7	7
Headingley Ward		53	41	1	1	13	3	3	5	166	11	17	6	3	6	106	7	2	1	1
Windhill and Wrose Ward		53	46	2	5	13	9	8	5	158	8	13	6	3	6	105	7	2	3	3
Royds Ward		53	45	7	14	57	7	6	6	202	6	9	4	2	6	103	7	2	3	3
Eccleshill Ward		53	45	7	20	60	7	6	5	180	7	11	6	3	4	60	7	2	2	2
Cross Gates and Whinmoor Ward		53	28	2	7	16	5	4	4	139	6	9	4	2	5	85	0	0	3	3
Batley East Ward		53	45	2	5	19	5	4	4	145	8	13	12	6	4	74	4	1	6	6
Mirfield Ward		52	44	4	7	32	2	2	4	127	7	11	16	8	3	50	4	1	5	5
Garforth and Swillington Ward		52	37	1	4	8	5	4	4	142	6	9	4	2	5	92	4	1	8	8
Wakefield Rural Ward		51	45	2	11	8	9	8	3	117	1	1	14	7	3	56	0	0	13	13
Crosland Moor and Netherton Ward		51	25	3	8	24	2	2	3	117	8	12	4	2	3	54	0	0	2	2
Brighouse Ward		51	48	1	4	4	9	8	3	102	6	10	4	2	3	49	11	3	11	11
Calverley and Farsley Ward		50	43	2	7	16	9	8	4	149	6	9	6	3	5	85	4	1	7	7
Bingley Ward		50	36	1	8	8	7	6	6	219	7	11	0	0	9	159	4	1	1	1
Altofts and Whitwood Ward		50	30	2	8	18	7	6	3	111	5	8	4	2	3	48	0	0	6	6
Wyke Ward		50	47	4	12	29	10	9	4	143	3	5	16	8	4	66	0	0	6	6
Otley and Yeadon Ward		49	48	1	2	12	7	6	5	178	9	14	6	3	6	107	7	2	6	6
Weetwood Ward		49	46	3	5	23	6	5	5	156	6	10	4	2	5	87	7	2	10	10
Pontefract North Ward		49	37	4	11	34	9	8	6	200	2	3	2	1	7	111	0	0	8	8
Temple Newsam Ward		49	42	6	13	50	5	4	5	186	8	12	2	1	5	88	7	2	4	4
South Elmsall and South Kirkby Ward		48	31	4	15	29	3	3	4	144	6	10	0	0	3	48	7	2	3	3
Colne Valley Ward		48	39	2	6	13	3	3	4	139	6	9	4	2	4	65	4	1	13	13
Ashbrow Ward		48	33	3	9	21	7	6	4	130	6	10	4	2	4	63	0	0	6	6
Thornton and Allerton Ward		48	39	4	12	29	10	9	5	155	8	12	4	2	4	62	0	0	5	5
Roundhay Ward		48	40	2	4	23	8	7	5	175	5	8	2	1	6	108	7	2	3	3
Adel and Wharfedale Ward		48	47	0	1	1	16	14	3	117	6	9	8	4	5	78	4	1	6	6
Clayton and Fairweather Green Ward		47	30	3	14	20	3	3	4	130	5	7	2	1	4	71	7	2	2	2
Castleford Central and Glasshoughton Ward		47	45	2	5	20	6	5	5	161	2	3	18	9	5	92	4	1	4	4

Current risk ratings in West Yorkshire



The following model shows the relationship between our four areas of risk management and provides examples of the key dependencies for success.

The model illustrates how prevention and protection activities reduce the need to respond to emergencies and the low demand for resilience arrangements. The forefront of our work is therefore the prevention of accidents and incidents and promoting safer communities.

5.3.1.Prevention Strategy

Fire occurs disproportionately within our communities. Research shows that particular groups of individuals and groups in our communities are at a much higher risk from fire. Fires are more likely to happen in deprived areas and affect those in lower socio-economic groups. West Yorkshire contains some of the most socially deprived areas in the United Kingdom. For example, 31% of Bradford's Lower Super Output Areas are among the most deprived.

The risk of fire however, significantly increases for individuals with certain lifestyle issues. Factors such as poor mobility, sensory impairment and alcohol or drug dependency increase the vulnerability of people. Older people who live alone with one or more of the above lifestyle factors are particularly at risk from fire.

People are four times more likely to die in a house fire when no working smoke alarms are present. The flagship of our prevention strategy is therefore the free Home Fire

Safety Check (HFSC) service. We introduced this service in 1996 to increase smoke alarm ownership in households, which has since been refined to deliver key fire safety messages with householders. We have now delivered over 500,000 HFSCs and these have had a substantial impact by reducing the number of house fires and increasing the number of people who escape safely from them. We are proud of this achievement but acknowledge that we have still not reached some of the most vulnerable people within our communities. We will continue to monitor the success of this service and introduce further refinements that help us to reach those at most risk.

Fire can have a devastating effect upon local communities and other organisations. Risk reduction work is however driving down the number of fires year on year, reducing deaths and injuries and reducing physical and economic damage. Reducing the number of fires means that there is less adverse impact upon local authorities, local businesses and local economies.

Arson is still the number one cause of fire but the multi-agency approach to tackling arson in West Yorkshire is having a significant impact. The success of this approach has led to a dramatic downward trend in deliberately ignited fires from 21,131 in 2003/4 to 5,666 in 2013/14, a net reduction of over 75%. Local anti-social behaviour initiatives have made a huge difference in reducing deliberate fire setting and our leading role in such initiatives remains a priority. We also recognise the importance of engaging with children and younger people and the connection with deliberate fire setting. We will therefore continue to champion initiatives that help steer them away from anti-social behaviour.

Our mantra of ‘prevention is better than cure’ is at the heart of everything we do. We will continue to manage risk in our communities by working closely with partners and local community groups. These groups are often aware of the most vulnerable individuals in our communities and are therefore an excellent conduit for making contact with them. We remain committed to strengthening these partnerships to protect, educate and influence those at highest risk from fire and other emergencies.

5.3.2.Protection Strategy

While prevention initiatives can stop fires happening in the first place, protection measures mitigate and limit fire growth and impact. In some cases, fire protection arrangements in buildings extinguish fires altogether before the arrival of emergency response resources. We therefore have a leading role in planning and promoting fire protection and fire engineered solutions for buildings and local businesses.

We are responsible for enforcing the Regulatory Reform (Fire Safety) Order 2005. This is the main fire safety legislation in the United Kingdom and applies to virtually all buildings, structures and open places. In West Yorkshire, there are around 80,000 commercial properties alone. Therefore, in common with all other areas of service delivery, we carry out our protection work using a risk-based approach.

The purpose of our protection strategy is to ensure that commercial, industrial and public properties are safe places for people to work and visit. It aims to reduce the risk and impact of fire on communities, heritage sites and the environment. Its primary focus is to help businesses meet their legal duties and maintain the safety of all those who may be present. Between 2011 and 2014, our strategy has helped to reduce the number of fires within these premises by 16.02% across West Yorkshire.

National and local data helps us to determine the risk presented by various building categories. We use a bespoke premises risk database to store details for every known commercial building in the county. The database allocates risk bands to each individual property based upon the likelihood of fire in each particular type of building, occupancy levels and the standard of management present. The premises risk database therefore allows us to prioritise protection and enforcement activities.

Our enforcement policy and practices comply with the Regulators Compliance Code and regulatory principles required under the Legislative and Regulatory Reform Act 2006.
The appropriate use of enforcement powers, including prosecution, is important in securing compliance with the law and ensuring accountability for failures to safeguard health, safety and welfare. The ultimate purpose is therefore to ensure that duty holders manage and control risks effectively. A document entitled, 'Discharge of Duties and Powers' stipulates the Authority's Fire Protection responsibilities.

Working environments are becoming more complex and continually changing. Changes in the economy and new technologies, together with a more mobile workforce are influencing fire safety arrangements in buildings. The slump in economic growth and increasing competition can lead to some businesses cutting corners to make efficiencies. Changes to working patterns also mean that many workplaces now operate around the clock. We need to ensure that good fire safety standards prevail and that commercial, industrial and public buildings continue to be safe.

Our statutory fire safety duties under the Regulatory Reform (Fire Safety) Order 2005 have also grown whilst available resources have reduced. It is therefore important that we continue to maximise our finite resources by focussing on areas where we can have

greater impact. This means withdrawing from some work where there is limited scope for improvement and concentrating efforts on higher-risk properties.

During 2013/14, our specialist fire safety officers completed 1,908 fire safety inspections and audits in premises that present the highest risk. These officers will visit higher risk premises more frequently whilst undertaking fewer audits on lower risk premises. Our operational firefighters are authorised under the Fire and Rescue Services Act 2004 to gather risk information regarding buildings and to establish if Responsible Persons understand their fire safety obligations. In future, there is scope for operational firefighters to undertake fire safety inspections and audits on lower risk premises by providing them with additional training and authorisation under the Regulatory Reform (Fire Safety) Order 2005. We will seek to maximise the use of our finite protection resources in enforcement activities, whilst using operational crews to support protection activities and gather operational risk information.

Our Fire Protection strategy enables us to gather relevant information regarding:

- hazards and risks posed to the occupants (employees, visitors etc.)
- risks presented to firefighters if premises are involved in fire
- building information and bespoke control measures, for example fire engineered solutions
- the use of premises and their relative risk
- the likely occupancy type and numbers inside premises at any given time

It also enables us to apply a proportionate approach to managing risk and to focus resources upon those premises that represent the greatest risk in the event of fire.

5.3.3. Response Strategy

Whilst we make every effort to prevent emergencies, they will continue to occur. We are therefore committed to maintaining an effective and efficient emergency response capability. Responding to emergencies is however, the final measure used to manage risk and wherever possible we will minimise its use by prevention and protection measures. These measures have contributed to a significant reduction in the number of incidents we attend, from 35,209 in 2009/10 to 23,292 in 2013/14, a reduction of 33.8%.

Our response resources were committed to emergencies for 3.6% of the time during 2013/14 compared to 5.8% of the time in 2009/10. Response to emergency incidents follows a general pattern and the bulk of our resource mobilisations occur during the

hours of 11 am to 11 pm. Our operational activity levels peak during the hours of 6 pm to 7 pm but decrease rapidly after 11 pm. The chart below shows the typical distribution of emergency calls during each 24 hour period.

Most of our fire engines are continually crewed and kept available throughout each 24 hour period. There is, however, scope to vary the number and/or crewing method and to align the number of available fire engines to the likely demand levels. We will consider implementing this during the lifetime of this strategy.

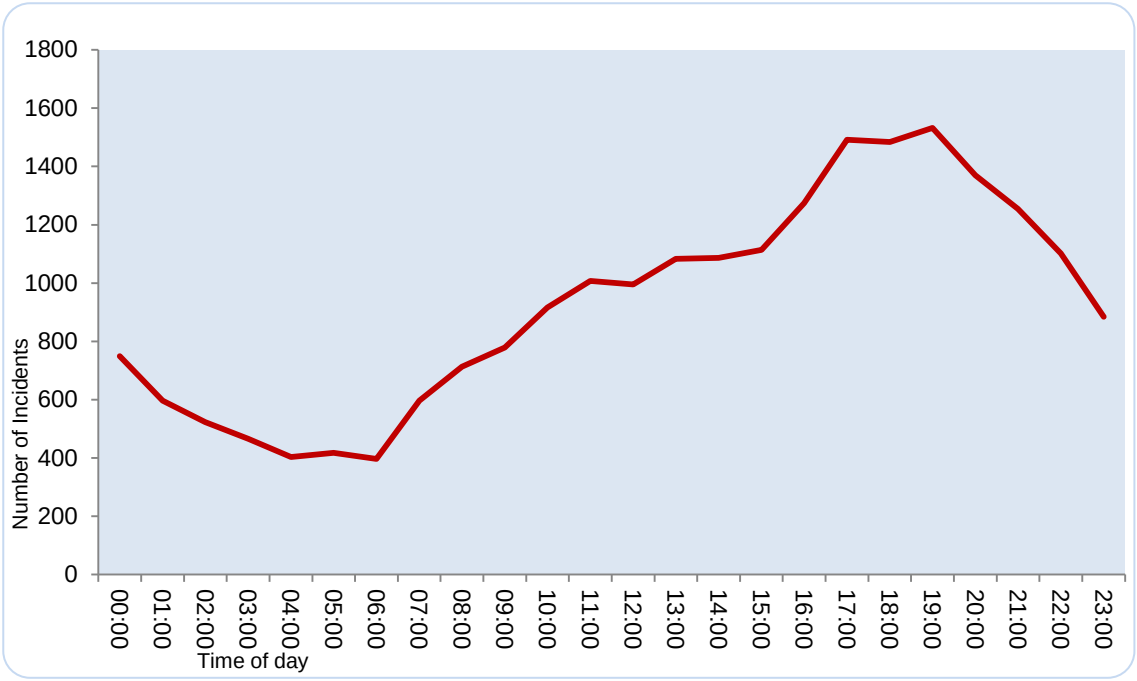


Chart indicating the typical distribution of emergency calls over a 24 hour period

Whatever the emergency, we aim to provide a high quality service that saves lives, prevents serious injuries and minimises damage to property and the environment. We also aim to respond to emergencies as quickly and as safely as possible and to this end ensure that the right resources are in the right places at the right time. We are therefore committed to providing facilities that underpin this, including:

- an effective means for receiving calls for emergency assistance and for mobilising appropriate resources
- providing a state of the art fleet of fire engines and emergency response equipment
- ensuring that our firefighters are highly trained so that they can deal with emergencies in a competent and professional manner
- making sure that our resources are located where they provide most benefit

- gathering information that aids pre planning for emergencies
- working effectively with other agencies and organisations to resolve emergencies

The emergency response time is the time taken for the first fire appliance to arrive at an incident following an emergency call. We will always attend emergencies as quickly as possible, but our focus is upon a swifter response to emergencies that are more serious in nature and particularly those where life risk is present.

In 2010, a review of emergency cover helped to inform and guide our emergency response times; known as Risk Based Planning Assumptions (RBPA). This approach has proved to be a highly effective method of allocating resources and we intend to continue with this methodology for the foreseeable future. The RBPA promote a proportionate response to different categories of emergency and geographical wards. The Planning Assumptions have replaced generic national standards applied for all emergency responses. Previously, the same emergency response targets applied to minor incidents and those of a more serious nature.

Our guide response times now reflect risk bandings for each ward and the type of emergency. The risk bands reflect the outcome of the risk matrix assessment for geographical wards. There are three main categories of emergencies included as part of the RBPAs. The following is a brief description of these:

1. **Life Risk** incidents are those that have potential for deaths, injuries or may require rescues. Typical examples of life risk incidents are therefore dwelling fires and road traffic collisions.
2. **Property Risk** incidents are those involving valuable assets, not falling within the Life Risk criteria. They typically include fires in non-derelict buildings, including factories, offices, shops and vehicles. Although such emergencies may affect people, they present significantly less threat to human life. Such premises do not have sleeping accommodation and usually have inherent fire protection.
3. **Other Risk** incidents are those, which do not match the descriptors for Life or Property risk. Typical examples of such incidents are refuse, grass fires or response to Automatic Fire Alarm Actuations (AFAs).

Risk Band/Emergency	Life	Property	Other
Very High Risk	**7 minutes**	9 minutes	11 minutes
High Risk	**8 minutes**	10 minutes	12 minutes
Medium Risk	**9 minutes**	11 minutes	13 minutes
Low Risk	**10 minutes**	12 minutes	14 minutes
Very Low Risk	**11 minutes**	13 minutes	15 minutes

The table above highlights the incremental increase in guide emergency response times in respect of the five risk bandings and the three categories of emergency.

This risk proportionate approach helps us to provide emergency response resources where they provide the quickest response to incidents of a more serious nature and where they are more likely to occur. Professional judgement, or 'critical thinking' prevails throughout our decision making process. However, the risk assessment underpinning our RBPAs forms the technical business case for providing appropriate levels of emergency cover across the county

During 2013/14, we met our RBPAs on around 95% of all occasions. With the exception of Road Traffic Collisions (RTCs), our performance for life risk incidents is currently 90.2%. RTCs often occur in less populated areas of the county that are more difficult to access, for example, those occurring on the motorway network. It generally takes our emergency response resources more time to arrive at these types of incident than other examples of life risk incidents such as house fires. Even considering this, we meet our RBPAs to RTCs on 83.7% of occasions and our average response time in 2013/14 was 6 minutes and 31 seconds.

We are committed to providing a swift and risk-proportionate response to emergencies. However, we also acknowledge that the weight of response is important to resolving them in a safe and timely manner. The weight of attack is the number and type of resources sent to each emergency incident. Our response to incidents of a less serious nature may vary from mobilising a single fire engine or a Fire Response Unit (smaller specialist fire engine), or one of our officers to assess requirements. Incidents of a more serious nature, for example, house fires and road traffic collisions will normally attract a minimum first attendance of two fire engines.

We assign a standardised level of response known as the pre-determined attendance for each different category of emergency call. The pre-determined attendance ensures that the correct level of resources is mobilised as a package to safely deal with the majority of eventualities. Our pre-determined attendances continue to reflect the unique nature of specific risks and information gathered by operational crews during operational risk visits at commercial properties.

Some of the county's highest risk buildings currently require several fire engines as the pre-determined attendance. Examples of such premises include large chemical sites, hospitals and sites where water supplies are sparse. Other types of emergencies demand mobilising a specialist capability as part of the initial response. Examples of these types of emergency include water rescue incidents and chemical releases.

We therefore aim to ensure that the speed and weight of our emergency response is proportionate to the level of risk and each category of emergency.

5.3.4.Resilience Strategy

Generally, we deliver our day-to-day services by using normal procedures and activities. We do however acknowledge that risk can sometimes change in an unpredictable manner and that major incidents and events can occur at any time and without warning. Although major incidents happen infrequently, the backdrop of extreme climate change and a continual terrorism threat mean that we need to be ready to respond whenever the need arises.

The Civil Contingencies Act 2004 requires fire and rescue authorities to have effective business continuity arrangements in place. These plans need to identify, assess and address any gaps between existing capability and that required for local and national resilience. Business Continuity Management is therefore fundamental to how we operate as a service and enables us to meet our legal obligations.

Our plans reflect risks and threats identified through a horizon scanning and intelligence sharing process and focus upon arrangements that help us to continue delivering our core functions. We develop them in conjunction with other partners and stakeholders, for example, the Local Resilience Forum. They also address risks identified on the National Risk Register, Community Risk Register and those bespoke to WYFRS. The associated severity and likelihood for these risks and threats is determined by our Risk Management Strategy Group and transferred onto a corporate risk matrix. Our Business Continuity Plans address a wide range of emergency events.

We are fortunate to have several national and regional assets available for use in West Yorkshire. These assets provide an enhanced capability to respond to wide-scale floods, complicated search and rescue operations, chemical releases and large scale decontamination requirements. These assets were initially provided for national and regional resilience but we have now integrated them into normal emergency response arrangements.

Major incidents place a significant burden upon emergency response resources and can require more resources than a single fire and rescue service can provide. In common with other fire and rescue services, we provide and receive mutual aid to and from other fire authority areas. The Fire and Rescue Services Act 2004 also places a legal requirement on fire authorities to agree reinforcement arrangements with their neighbouring fire authorities. Our plans therefore support such arrangements and these help to bolster our resilience.

West Yorkshire has several sites that are critical to the United Kingdom's national infrastructure and heritage. It has a significant number of large commercial and public buildings that are extremely important to local resilience and the economy. The county also has 13 sites designated by the Health and Safety Executive as falling within the top tier category for the Control of Major Accident Hazard (COMAH) regulations. Despite having very good safety standards, these sites generally present a higher level of hazard than elsewhere. This is because of the likely impact caused by a serious fire or other emergency. Our resilience arrangements will continue to acknowledge the higher risk associated with these types of sites.

Whilst dealing with a major incident it is essential to provide the best available fire and rescue cover with depleted operational resources. A new dynamic fire cover and risk analysis tool has been developed with Systel, an international company which provides mobilising and communications systems throughout the world. Systel have recently installed our new mobilising and control system. The tool uses GPS technology to help us to determine the best locations for any given number of fire engines and provides optimum performance against the RBPAs. Whereas previous tools enabled us to identify life risk only, we can now identify specific types of risk or a blend of risk, to determine the most appropriate model of fire cover. We are also able to determine the most suitable strategic standby locations based on the number of fire appliances available.

The pattern and distribution of significant emergencies is different to the general day-to-day emergency response profile. The chart overleaf shows the distribution of emergencies requiring six or more fire engines by hour of day over a three year period. It

highlights the erratic nature of such emergencies and the difficulties in prediction. The chart also illustrates that providing blanket coverage of emergency response resources is not an efficient way of managing the risk presented by larger incidents.

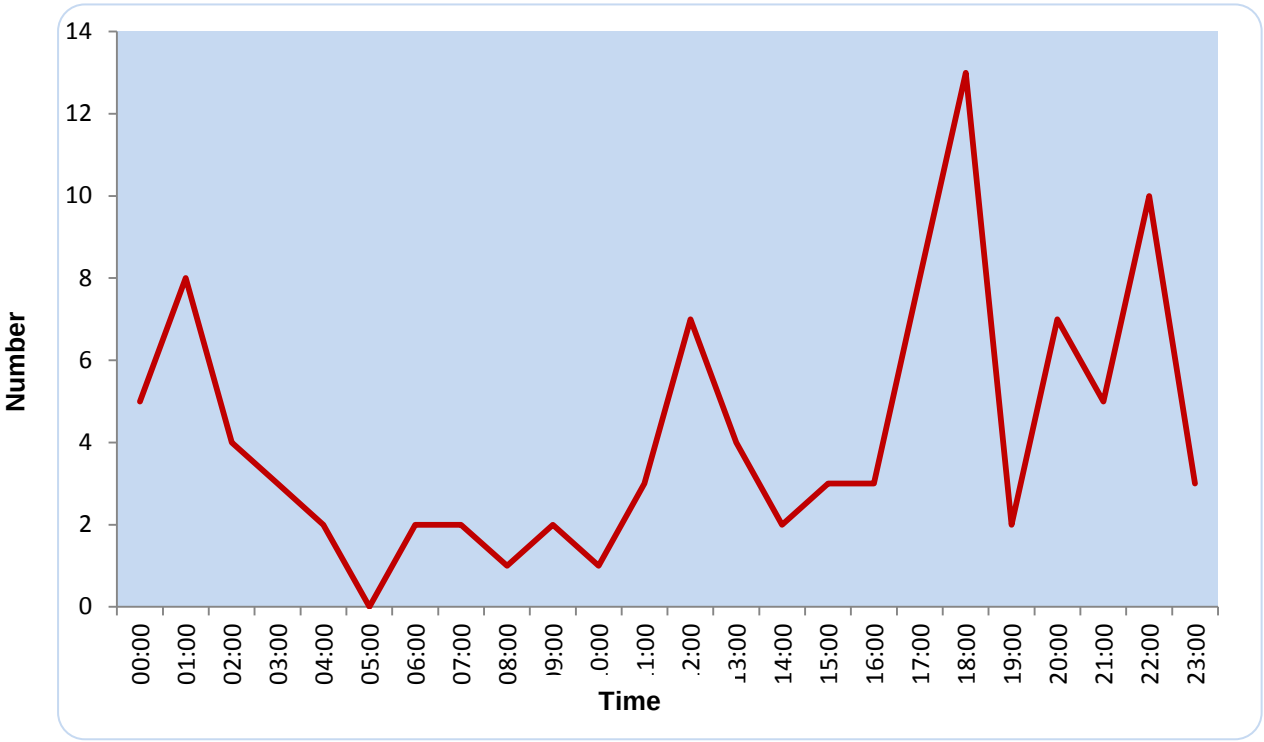


Chart showing the distribution of emergencies requiring six or more fire engines by hour of day over a three year period

WYFRS will bolster depleted emergency response by using additional fire engines called 'Resilience Pumps'. These fire engines will not be continually staffed and will only be activated using 'recall to duty' arrangements under the following circumstances:

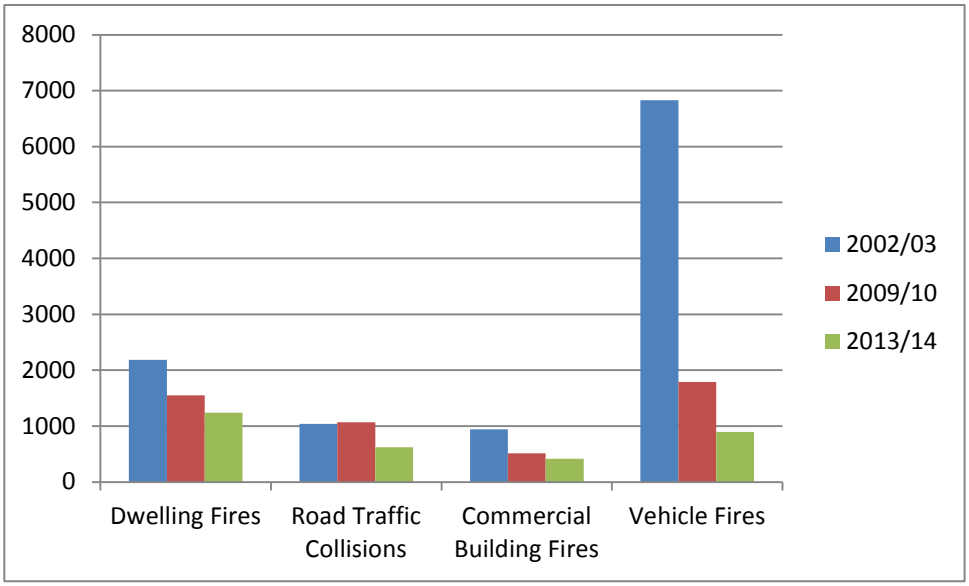
- to respond to unanticipated or unexpected high level of emergency calls
- to provide additional resources during a major emergency; for example wide area flooding, or at large protracted fires
- as part of a pre-planned response to organised, or anticipated events; for example, public demonstrations and inclement weather

Using Resilience Pumps in conjunction with other available resources and the dynamic fire cover tool, we will continue to provide the best available emergency response service despite reduced resources.

5.4. Implementing Control Measures

The ultimate aim of our control measures is to remove the risk of fires and emergencies as far as reasonably practicable.

We have changed the focus of service delivery to embrace the significance of prevention and protection activities. Our proportionate delivery of services is targeting resources to areas at higher risk of fire and other emergencies. The success of this approach is unquestionable and it has resulted in the significant reduction of fires and associated deaths and injuries. The chart below summarises the dramatic reduction in fires and other emergencies attended by WYFRS over the past ten years:



5.4.1.Prevention and Protection

Prevention

The downward trend in virtually all emergency incidents is testament to local risk reduction work and partnerships. Our Service wide risk analysis will continue to inform local plans and strategies aimed at managing the risks facing our communities. Local Risk Reduction Plans help us to roll out tailor made initiatives for each area of the county. They enable us to provide the most appropriate prevention and protection resources in the right areas at the right time.

We will continue to deliver our flagship free HFSC service. This service is making a significant contribution to the downward trend in house fires and associated deaths and injuries. Operational firefighters and support staff will continue to meet outcomebased targets for this service. The main objective of these targets is to improve the safety of

each dwelling visited, by providing adequate smoke detection and education to occupants.

The local knowledge held by firefighters is of great benefit to risk reduction work. Our firefighters are generally aware of areas that are more likely to experience fires and other emergencies. Knowledge gathered from local community groups and partnerships also helps to inform Local Risk Reduction Plan initiatives. We will continue to support local knowledge with detailed risk analysis that helps to target households at higher risk from fire. Ward-based risk levels and maps are useful for planning and monitoring services, but are less useful for the specific targeting of resources. This is because wards in West Yorkshire can have populations as large as 32,000 and can contain small pockets of higher risk households. To address this issue we will refine our approach to show risk at a lower geographical area. We will provide District teams with maps showing Output Areas where there is a higher occurrence of dwelling fires and/or where lifestyle risk factors are prevalent. Output Areas contain around 125 households and have a population of around 300. The information will therefore assist in pinpointing households at greater risk.

A bespoke on-line map application helps our operational crews identify trends in fires and other emergencies. The mapping software also provides a facility to overlay various data sets, including area boundaries; emergencies attended and risk reduction activities. The following illustration is a screenshot of the application and in this example shows the number of dwelling fires and home safety checks in a ward over a specified time period.

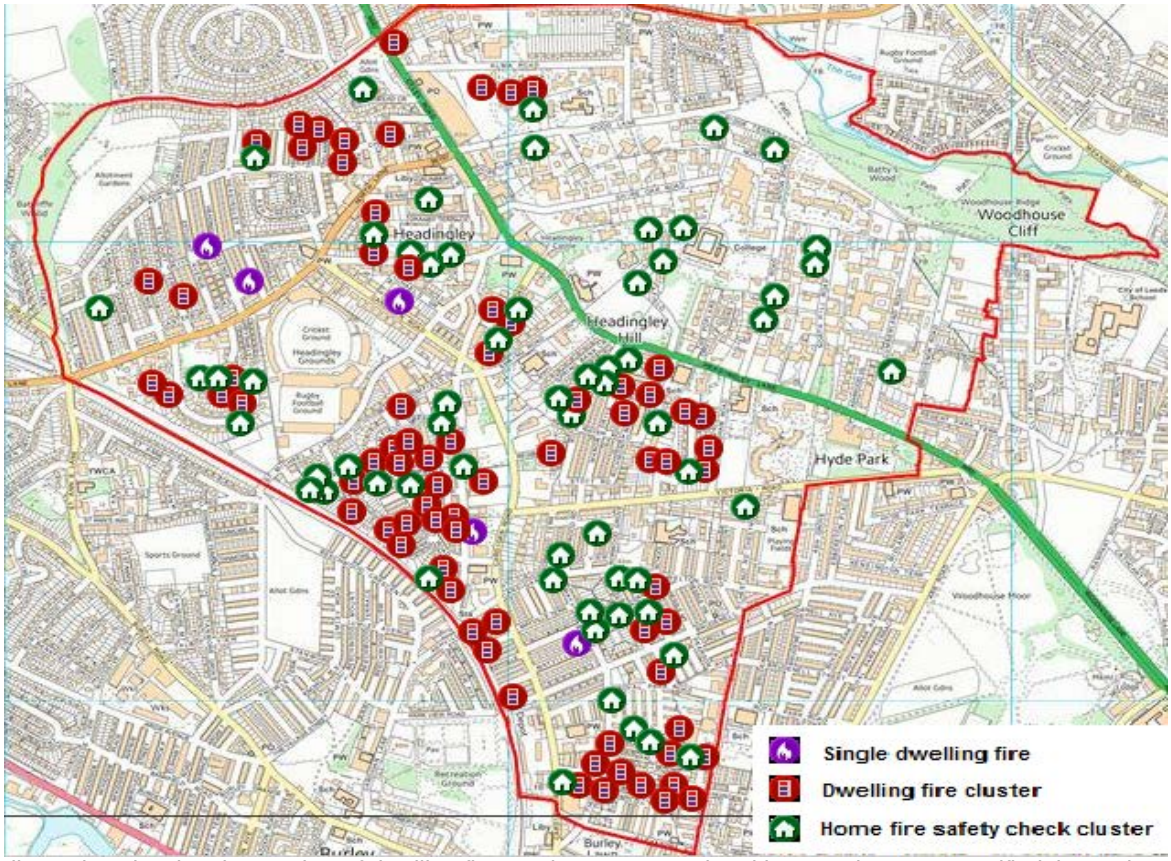


Illustration showing the number of dwelling fires and HFSCs completed in a ward, over a specified time using our online mapping application.

The application is live and therefore provides operational firefighters with up to date information. This improves their ability to target specific areas for prevention and other risk reduction activities. We are developing this application to provide additional data that enhances risk reduction activities.

WYFRS commenced its free HFSC service in 1996. Our original objective was to increase smoke alarm ownership by delivering 450,000 visits to households. We have now delivered over half a million HFSCs together with a range of complementary risk reduction initiatives. This intensive Prevention programme has contributed to a significant reduction in dwelling fires and associated deaths and injuries. Such a blanket programme is no longer cost effective and there are now more effective ways of delivering the HFSC service.

In future, WYFRS will use outcomes to determine the success of HFSCs and other prevention activities. Operational crews and Prevention staff will continue to contribute towards the downward trend in dwelling fires and associated deaths and injuries using risk based initiatives. A recently introduced points based HFSC service supports this objective and encourages our staff to identify and target those who are most vulnerable.

Partnerships with other organisations and community groups form an important part of our strategy to control existing and emerging risks. We are active members of several partnerships aimed at improving the safety and quality of life for local people. For example, Crime and Disorder partnerships play a vital role in developing effective arson reduction campaigns. We remain committed to strengthening such partnerships mainly using our District based resources. Local fire officers will therefore continue to provide leadership and support in the heart of their communities. This approach to shared priorities, information and resources will continue to benefit our communities and help make West Yorkshire safer.

A dedicated Prevention Team provides vital support to district risk reduction activities. District Commanders are responsible for delivering outcome-based targets and District Prevention Managers and District Assistants support this. The Fire Prevention Team structure will continue to provide two distinct functions, with initiatives developed and delivered using targeted resources aligned to specific objectives.

The Fire Prevention Team will continue to support each district supplemented by additional resources for targeted activity, to reduce risk and to develop joint ways of working with other agencies. Focus will remain upon targeting the most vulnerable individuals and groups within our communities. Examples of such groups are:

- older people
- those with mobility issues
- those with alcohol or drug dependency, and
- those living alone.

Protection

In addition to the investment in specific initiatives, we are using operational firefighters to undertake fire protection activities in lower risk properties, while ring fencing our fire protection officers for higher risk or more complex buildings and structures. All of our employees undertaking fire protection inspections will continue to adopt a proportionate and flexible approach to risk. By using this risk-based approach, we are able to target officers with the appropriate knowledge and expertise toward properties at higher risk from fire.

National guidance highlights work capacity levels for fire safety inspectors and reasonable expectations for the number of positive inspection hours. We will use this

information to aide setting audit targets for our fire protection officers. We will make appropriate adjustment to targets to support other important functions, for example delivering training; responding to complaints and undertaking post fire inspections. We will identify appropriate buildings for inspection by their priority when compared to other similar premises (relative risk). The Premises Risk Database will continue to deliver this information by evaluating risk using information on:

- the national frequency of fires in different types of premises
- the effectiveness of passive and active fire precautions
- the effectiveness of fire safety management
- the risk presented by each occupancy type, for example those who are less mobile.

Operational crews will undertake visits to places of work and public assembly for two specific purposes. Firstly, they will establish if Responsible Persons understand their fire safety obligations to assist them in identifying deficiencies. Secondly, they will gather fire safety and operational risk information for risk profiling and operational planning purposes.

We will continue to set targets for Operational Risk Visits (ORVs) and to incorporate a thematic approach for a proportion of inspections. The ORV targets will predominantly promote inspections based on theme, firefighter risk and relative risk. Examples of future themes include:

- complex buildings
- buildings containing fire suppression systems
- buildings containing hazardous materials
- buildings with higher risk occupants
- buildings with known poor fire safety management
- buildings constructed of materials that perform badly in a fire situation.

Targets will be set centrally and agreed annually between the Senior Fire Protection Manager and the Senior Operations Response Officer. The Senior Fire Protection Manager will allocate sufficient fire protection inspectors to meet local requirements. The Senior Operations Response Officer will devolve responsibility for operational targets to District Commanders.

Following the introduction of Primary Authority Schemes (PAS) in relation to the Regulatory Reform (Fire Safety) Order 2005, we have developed a specialist Business Support Team. This team facilitates PAS partnerships and is responsible for providing advice to our business partners, which is then, adopted nationally promoting consistency in interpretation of compliance across the country.

The team work with large organisations that are more likely to be included within the scope of PAS, but also targets smaller businesses to support the growth of the local economy through engagement with small and medium enterprises. This work has allowed us to be instrumental in providing support to the Governments Better Business for All agenda.

5.4.2.Response

Responding to emergencies is the last remaining way by which we manage risk by minimising the impact and bringing the emergency under control. It is the area of risk management requiring the most resources and attracts significantly more expenditure.

We anticipate the squeeze on public sector expenditure to continue throughout the duration of this strategy. This means it is highly likely that our non-recruitment strategy will continue for a protracted period. The consequence of this is that the number of firefighters we employ will continue to decrease. Without recruiting, the number of firefighters employed by WYFRS will fall to around 950 by 2020 representing a 41% reduction over 10 years.

The non-recruitment strategy is taking place against the backdrop of huge reductions in emergency calls. An unprecedented programme to reshape the way that we deliver our emergency response service accompanies this and formed the basis of our 2011-15 Community Risk Management Strategy. Implementation will continue throughout the lifetime of the 2015-2020 Strategy. The changes we are making to our emergency response service acknowledge the changing demographics for the county and the dramatic impact of risk reduction work upon operational workloads. Although we have fewer operational resources at our disposal, we will strive to ensure that the right resources are in the right places at the right time.

The new Command and Control System developed with South Yorkshire Fire and Rescue Service provides a state of the art mobilisation and communication function in a new facility. This incorporates an Automatic Vehicle Location System (AVLS) and other features, improving our capability to deploy swiftly the right assets to each emergency and to manage fire and rescue coverage across the county. Highly skilled and

experienced operators staff the centre and extract key information from callers under the most challenging of circumstances.

During the life of this strategy, the number of fire stations in West Yorkshire will reduce from 46 to 39. The operational fleet will reduce from 49 to 44 front line fire engines, with two Fire Response Units responding to incidents of a less serious nature, to ensure the availability of frontline fire engines for more serious incidents. A modern fleet of specialist resources will provide a highly effective response to a wide variety of incidents, including complicated search and rescue operations, flooding, moorland fires and hazardous materials incidents.

Our emergency response capability continues to benefit from significant capital investment. We will replace 15 fire stations and construct eight new ones and will continue to provide our firefighters with the best available equipment. Our new fire stations will help us to achieve significant year on year efficiencies while providing resources where they provide most benefit.

Reshaping our emergency response service will have a variable impact upon local emergency response times. In some areas of the county, in particular, high-risk areas, our average emergency response times will decrease but in others, predominantly lower risk areas, they will increase.

Fully trained firefighters will crew our front line fire engines. They will work a variety of different duty systems in order to provide an effective and efficient emergency response capability. We will provide them with the best available training to prepare them for the challenges they are likely to face, to ensure that we deal with emergencies safely and effectively. We will deliver quality training, development and assessment programmes aligned to recognised requirements that take account of the county's risk profile.

We base most of our planning upon relevant and current knowledge of risk in each area of the county. The availability of relevant and timely information is critical to managing emergencies. The Service will therefore ensure that it gathers operational risk information for premises that present risks to firefighters, members of the public and the environment. Up to date risk information is available via Mobile Data Terminals (MDTs) fitted to all frontline fire engines. This information provides specific details of hazards in premises and helps our operational crews adopt appropriate fire and rescue tactics. We will continue to align our operational risk information policies with national guidance and ensure that our policies satisfy our legal obligations and the requirements of the National Framework 2012 for fire and rescue authorities.

5.4.3.Resilience

We have sufficient firefighters and fire engines available to deal with all normal requirements. Our resilience arrangements provide additional resources for all eventualities including major incidents and spate mobilising conditions. Business Continuity Plans reflect the risks and threats that have potential to disrupt our services and help to determine our resilience plans.

Off duty firefighters are available via recall to duty arrangements and we have the capacity to provide up to 10 additional front line Resilience Pumps. These are positioned in strategic locations across the county, to bolster fire and rescue coverage as and when required.

The Service currently hosts several national assets that form part of the United Kingdom's resilience against risks and threats contained on the National Risk Register. We will continue to support the availability of these assets and receive government funding for national, regional and local deployment. These assets include:

- High Volume Pumps, for delivery or removal of high quantities of water
- Urban Search and Rescue (USAR) modules for effecting complicated rescues
- Detection Identification and Monitoring (DIM) equipment, for hazardous materials
- Mass Decontamination modules, for decontaminating large numbers of people.

The equipment and operating procedures require a high level of competence and the cost of this is significant. We are committed to maintaining high levels of expertise for these assets, but the number of technicians and ways of operating may be subject to change. A continuation in government funding will influence how we deliver this capability in the future.

Several agencies and emergency responders contribute to managing significant emergencies. Multi-agency incidents are often complex and we have Memoranda of Understanding with West Yorkshire Police and Yorkshire Ambulance Service (YAS), including the YAS Hazard Area Response Team (HART). The Memoranda of Understanding provide formal working agreements for fire investigation, hazardous material incidents, technical rescues, chemical suicides and mass de-contamination. They help bring clarity regarding the roles and expectations for each agency and promote effective use of regional resources.

WYFRS make a significant contribution to the Local Resilience Forum. Our officers chair and attend several of the sub-groups and play a leading role in developing both local and

national resilience policies. The West Yorkshire Resilience Forum produces the West Yorkshire Community Risk Register. This identifies the main risks that residents and businesses in West Yorkshire may face and forms the basis of multi-agency emergency planning. The West Yorkshire Community Risk Register does not cover all eventualities; however, it does assist in developing our resilience arrangements for the most significant types of emergencies.

The 13 Control of Major Accident Hazards (COMAH) sites located in West Yorkshire are regarded as high-risk sites. Our Service organises multi-agency exercises for each of the sites that test the off-site plan arrangements. Our firefighters frequently visit these sites to familiarise themselves with the on-site risks and to pre-plan for fires and other emergencies. Detailed risk templates and operational risk information sheets contain information gathered during these visits. This information is available to firefighters electronically via Mobile Data Terminals and our Command Unit. It is therefore easily retrievable in the event of an emergency and helps to minimise the risks to firefighters and communities.

Our officers also share information regarding operational matters with key stakeholders via the Yorkshire and Humber Operational Resilience Group (YHORG). This group has a broad operational remit, including operational policies, interoperability, protective security, operational training, exercising and all resilience issues. The outcomes from this partnership continually deliver improvements to service delivery.

Sections 13 and 16 of the Fire and Rescue Services Act 2004 require neighbouring Fire Authorities to enter into formal mutual aid support and emergency provision arrangements. WYFRS shares borders with North and South Yorkshire, Lancashire, Greater Manchester and Derbyshire fire and rescue services. WYFRS has robust arrangements in place with our neighbouring Fire and Rescue Services, to provide and receive cross-border assistance and response to all incidents on request.

We continue to work closely with other blue light agencies to be able to respond to the threat of terrorist incidents. For a number of years we have seconded an officer into the regional North East Counter Terrorism Unit (NECTU). The secondment is improving co-operation and information sharing between organisations. The secondment continues to feed the development of our cadre of Inter-agency Liaison Officers (ILO), and improve the sharing of protected information with West Yorkshire Police and the NECTU. Closer working relationships with West Yorkshire Police are also improving the effectiveness of multi-agency response plans. These plans address several events, including large public demonstrations and public disorder. They provide information, guidance and support for

Bronze, Silver and Gold commanders and aim to decrease the impact of events on communities.

The multi-agency arrangements are delivering tangible benefits; we will therefore continue to develop strong relationships with partner agencies and review multi-agency agreements, to ensure that they continue to support better understanding and high quality services.

WYFRS has a statutory duty to plan and prepare for events that threaten the delivery of our services to the community of West Yorkshire. The relevant acts and legislation include:

- Fire and Rescue Services Act 2004
- The Fire and Rescue Services (Emergencies) (England) Order 2007
- Civil Contingencies Act 2004
- National Framework 2012

WYFRSs business continuity strategy and policy provides the framework and management system to ensure the delivery of key services in the event of minor/major incidents, disruptive events and crisis situations. During 2013/14, we introduced a number of contingency arrangements to mitigate the effects of industrial action taken by operational firefighters. These arrangements were flexible yet robust and met normal operational activity requirements using a combination of fully trained firefighters, Flexible Duty System Officers, support staff and Community Response Officers (CROs).

Our business continuity management system also demonstrates and provides assurances to the Authority's stakeholders including the public that arrangements are in place to maintain the core functions of fire safety, fire fighting, road traffic collisions and response to emergencies. Our business continuity plans are maintained, reviewed and tested to ensure they are effective if they ever need to be invoked.

5.5. Delivering Our Services

We need to be flexible in the way that we deploy our finite resources to ensure that we match these resources to levels of risk. Four strategic forums will ensure a risk-proportionate approach to service delivery:

- The Fire and Rescue Authority
- Management Board
- Service Delivery Board
- The District Teams

The Fire and Rescue Authority is the publically accountable body, responsible for providing our fire and rescue service on behalf of the communities of West Yorkshire. The Authority's role is to set the strategic direction of service and to monitor service delivery. The Authority sets annual budgets, council tax precept levels and approves service plans, policies, strategies and targets.

The Management Board consists of principal officers who provide strategic policy advice to the Fire and Rescue Authority and address the corporate policy objectives of the Authority. Management Board members provide the interface between elected members of the Authority and Officers. They monitor and maintain the corporate health of the Authority and make collective financial expenditure decisions within the limits delegated to the Board by the Fire Authority.

The Service Delivery Board determines the level of resource required to manage risk in each area of the county. It will prioritise and allocate resources in line with service delivery objectives and ward risk bandings. The Service Delivery Board will consult with District Commanders and agree risk reduction targets, together with the level of support required to achieve these. Risk Reduction Teams and Local Area Risk Reduction Teams will manage these targets via District and Local Area Risk Reduction Plans. The Service Delivery Board will monitor progress against targets allocated to Districts and allocate further risk reduction resources as appropriate.

Each District has a District Commander who is supported by the District Team. The District Commander determines how best to deliver services to the community using resources allocated within prescribed policies. They also share good practice and initiatives throughout the county. Resources and risk are taken into account to ensure that an effective service is delivered at a local level.

The Partnerships Board provides a forum to discuss specific issues affecting risk in each District where there is scope to manage these via partnerships with other agencies. It also provides a means to assess the value of each existing partnership and scope to extend current arrangements.

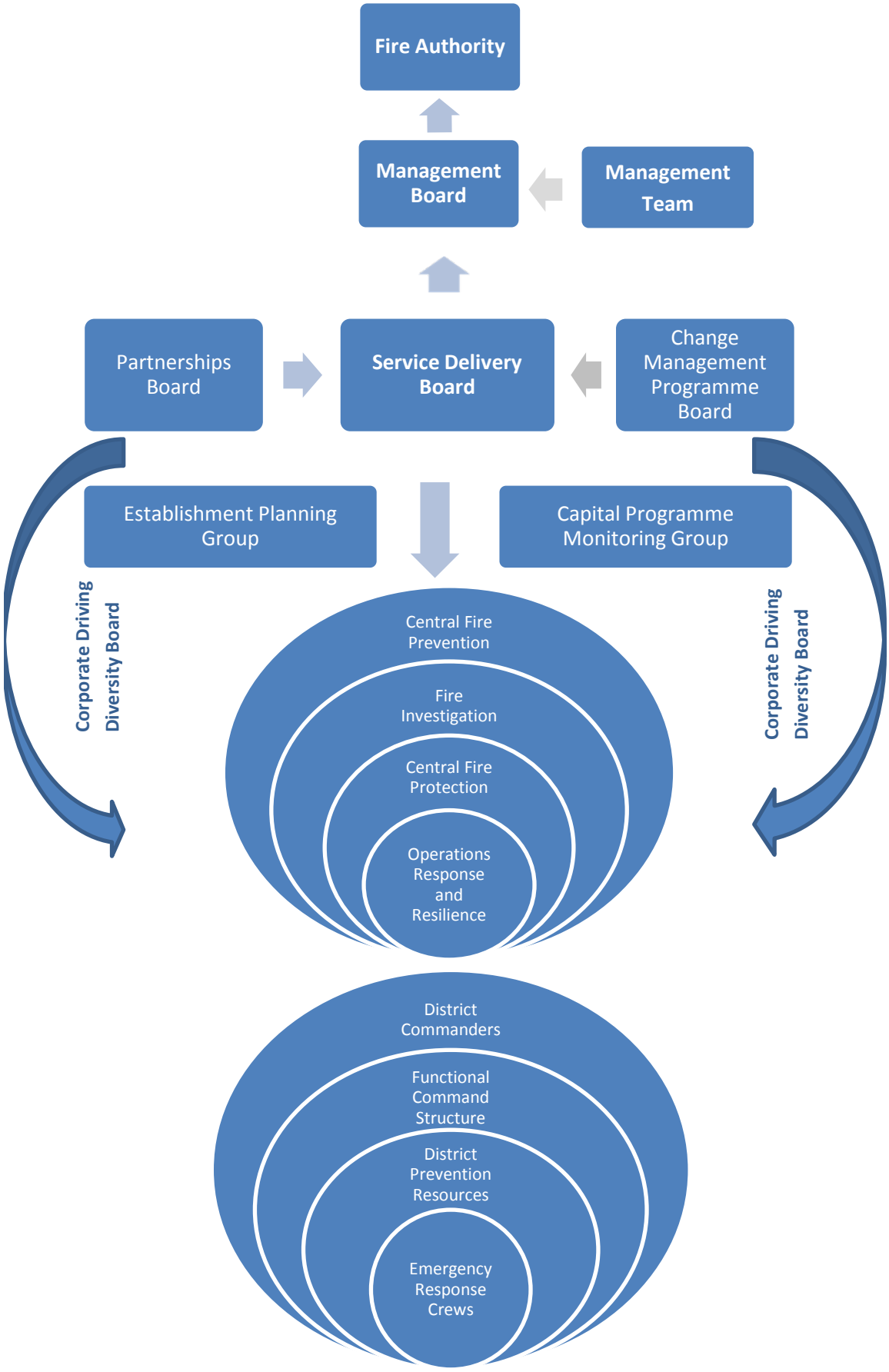
WYFRS is reshaping how it delivers its services. This process of change is considerable and we adopt formal project management arrangements, overseen by the Change Management Programme Board. It will monitor progress against the objectives for each significant project, for example relocating fire stations and co-ordinating activities and resources. Project Initiation Documents will contain SMART objectives for each project and any deviation from these will require approval using formal change control.

Several groups support the four strategic forums, these include:

- The Establishment Planning Group, responsible for balancing the organisational strength with changes to emergency response resources
- The Capital Programme Monitoring Group ensures the delivery of a viable capital plan
- The Corporate Driving Diversity Board helps to mainstream equality and diversity issues into areas of service delivery in line with our Equality Framework principles.

Our service delivery model fully integrates prevention, protection, response and resilience arrangements. The tiered system embeds service delivery strategies within each level of the organisation and promotes a bottom up and top down approach to managing risk. The diagram overleaf helps to illustrate the links between the strategic forums and service delivery resources. It provides examples of resources available for risk reduction and management activities.

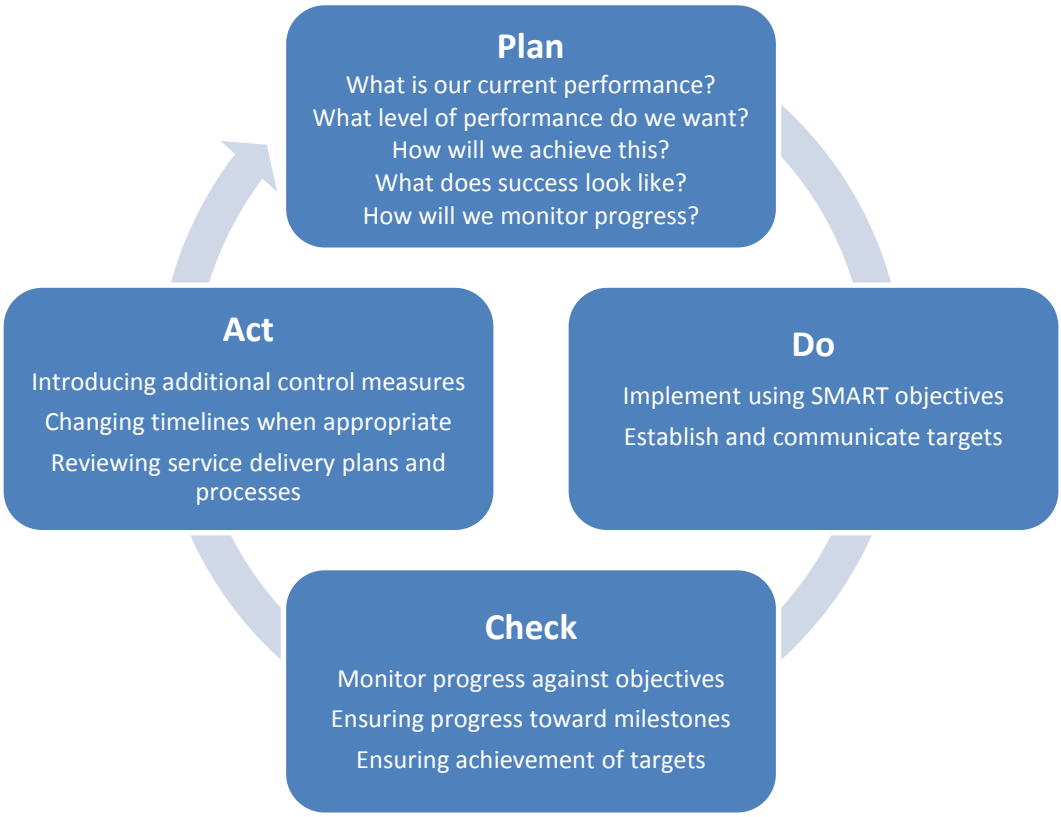
The Service Delivery Model



5.6. Monitoring and Reviewing Risk

Risk is not static and a range of factors influence the level of risk for any given period. The county's demographics and environment are continually changing and this demands an on-going monitoring process to ensure that we are able to manage risk effectively. Our risk management process is iterative in nature and reflects the Health and Safety Executive's (HSE) HSG 65 framework for managing health and safety. Our monitoring and review arrangements follow a simple cycle and continually feed into each stage of the risk management process. This helps us to consider fluctuations in risk levels as and when they occur and act dynamically in how we deliver our services.

We are a performance led organisation and have robust arrangements for planning, target setting, monitoring, reporting and reviewing all areas of service delivery. The following diagram simplifies how our performance management framework operates and all areas of service embrace this process.



Service delivery outcomes mainly influence the Risk Matrix scores and risk bandings for each area of the county. We apply several outcome-based targets for our areas of service delivery. These targets promote ownership of performance at all levels of the organisation and drive a continual process to reduce risk.

Bespoke and commercial off the shelf software helps to identify performance against each target and at each level. Web- based applications allow layering of different areas of performance information, for example the number of dwelling fires and HFSCs. This helps to show the control measures applied in response to fires and other emergencies. The suite of performance monitoring tools provides all staff with current information regarding risk and emergencies. It subsequently allows our staff to react and apply appropriate control measures to emerging trends.

Members of senior management and elected Fire Authority Members monitor and scrutinise service delivery performance. District Commanders are accountable for meeting performance targets set for their respective districts. We hold Heads of Service Delivery accountable for overall performance within their areas of responsibility. Generally, the review of performance occurs on a quarterly basis during specific Performance Management Inspections and Fire Authority meetings. Performance Reports use a traffic light system to show performance against each specific milestone and target.

There is a direct link between service delivery outcomes and how we determine risk levels for the county. Monitoring progress against outcome based targets therefore helps us to identify changes in risk levels. This in turn allows us to introduce further control measures, or change the way that we deliver services in a particular area. Gathering information through monitoring helps to determine how effective our risk management strategies are. Short term underperformance may not necessarily mean failure against a specific target; however, it provides a trigger to review the existing risk management arrangements.

Review is the final stage of our risk management process, but it also forms the beginning of the next cycle. During the review stage and prior to each fiscal year, we will update the Risk Matrix and populate it with risk scores for each ward within the county. Every three years we will refresh the risk bandings for each ward based upon the most recent three yearly service delivery outcomes within the Risk Matrix. This review process allows us to monitor changes in risk every year and to track the direction of travel over a more protracted period. The outcome of the review stage helps to determine service delivery targets for forthcoming years and potential changes in service delivery for areas of the county.

WYFRS is a public service and local taxation makes up a substantial part of our funding. It is therefore important that we are clear about what local stakeholders can expect us to deliver and we demonstrate what steps we are taking to achieve this. We will continue to

communicate performance standards and changes to service delivery via Annual Action Plans and longer term Service Plans. These documents will detail our achievements for each area of service delivery and if we have met our targets.

6. Future Efficiency Options

WYFRA has a duty to balance its budget each year. This is becoming progressively difficult due to sustained reductions in central government funding. Maintaining the current level of resources is financially unsustainable during the lifetime of this strategy. This means that we will need to deliver our services with fewer resources.

We have an excellent record of accomplishment in delivering efficiency savings, but we have exhausted many of the savings initiatives contained in our previous strategy. Employee wages continue to be the main source of expenditure to the organisation and therefore efficiency savings need to focus upon reducing these costs.

The population in West Yorkshire is increasing and people are living longer. The number of buildings is also increasing and there are more vehicles using the county's roads. These changes could indicate that risk is increasing, yet we are responding to fewer emergencies year on year and our risk management process shows a downward trend in risk levels. This suggests that it is still possible to make further efficiency savings without compromising public safety and this is our aim.

The efficiency savings initiatives below therefore provide options to match resources against reducing risk levels, providing flexibility in how we balance future budgets. We believe all of the efficiency savings options are sound. They present scope to deliver a varying level of savings and some have a higher impact upon service delivery than others. The most attractive options are therefore those that deliver substantial savings but have little impact upon service delivery standards.

6.1. Revised Command Structure

The Command, Leadership and Management (CLM) Review undertaken in 2013 recommended the removal of station commanders from fire stations and pooling this resource on Districts. The existing model of station command has a number of benefits, the greatest being their constant presence on a fire station providing leadership at local level; however, the review suggests it is possible that this could be delivered in a different way, by introducing the Assistant District Commander (ADC) model and developing the watch commander role.

In 2014, we commenced a trial of two new ADC command models, the first using functional references e.g. Operations and Training, Human Resources and Risk Reduction and the second model encompassing these references into wider service delivery and service support references. With adequate support and development, watch commanders on fire stations would then fulfil a number of routine administration and performance roles currently carried out by station commanders.

Implementing either of the new command models could potentially reduce the number of station command posts from 31 to 20. With appropriate design, these reductions could have little impact on day-to-day service delivery and could deliver substantial savings. This is therefore an attractive efficiency option.

6.2. Expansion of the Watch Commander Role

This option needs careful consideration in addition to the revised command structure above, but further savings could be realised by changing the watch commander role further.

There are currently four watch commanders on a whole time fire station, one on each shift (watch). They form part of the crew on a front line fire engine and respond to all categories of emergency. The CLM Review explores the scope to increase the supervisory responsibilities for watch commanders to fulfil their existing rolemap. With further support and development, watch commanders could assume responsibility for two watches at the same fire station, or, two watches between neighbouring fire stations. Implementation of either of these options would result in a reduction of two watch commander posts per station.

Watch commanders with responsibility for two watches across two neighbouring fire stations will require access to a vehicle to enable them to move between each location. Provision of a vehicle will provide additional benefits to expand their role, for example, watch commanders can attend partnership meetings or carry out community safety work remote from the fire station and crew, but still be able to respond to fires in the provided vehicle when required.

If the current standard staffing model continues on fire stations, additional firefighters would be required to backfill the vacant watch commander posts. This means that the savings achieved by removing each watch commander post will be limited to the difference between the watch commander and firefighter salary, but when applied across the Service there is potential for significant savings. This option carries some risk and therefore needs to be fully evaluated before any decisions are made.

6.3. Matching Response Resources to Risk

The common theme running through this strategy is providing resources that are proportionate to the level of risk. Risk levels are reducing in most of the county's wards and this is likely to continue throughout the life of this strategy. Our operational resources are responding to fewer emergencies year on year and some are underutilised.

We are currently reshaping our emergency response service by merging fire stations, removing underutilised fire engines and introducing more efficient shift patterns. Despite these changes, we will still be able to meet the guide emergency response times of the RBPAs.

We will need to consider each reduction in risk banding against the existing operational resource provision and decide whether this represents an over provision. It is worth highlighting that reducing ward risk bandings, for example, from high risk to medium risk would mean that the corresponding guide response times increase by one minute. Consequently, it may be possible to achieve the RBPA in wards by changing how we provide operational resources. Options for alternative response arrangements include:

- removing or re-locating front line fire engines
- replacing front line fire engines with alternative response capabilities, for example Fire Response Units
- introducing different duty systems at fire stations, for example On-call (Retained Duty System), Nucleus Crewing and Day Crewing
- closing fire stations and/or merging neighbouring fire stations
- providing partial emergency cover for specific periods during each day (peak period crewing – see below)

This list is not exhaustive and delivering effective and efficient response solutions may require a combination of options. Changing the way that we provide emergency response resources can result in significant savings. Such changes normally have some impact upon service delivery levels and are therefore likely to require full public consultation and/or detailed negotiations with employee representative bodies.

6.4. Peak Period Crewing

This duty system employs a variable number of available resources aligned to operational activity levels. It seeks to optimise the availability of firefighters providing more staff during the periods of peak activity. This system if employed on a single pump fire station does not provide continuous fire and rescue cover, but is suitable for the

provision of additional resources in areas of the county where operational activity levels vary significantly in each 24 hour period. It has the potential to be employed at multi-pump fire stations in conjunction with the traditional 2x2x4 duty system and would facilitate one of the fire appliances being made available only during times of increased activity. There is also scope for this duty system to be used as part of pre-planning for forecasted periods of high operational activity such as bonfire night. This will require consideration of a range of new ways of working including different duty systems, potentially offering firefighters an opportunity to earn additional income, where such changes result in major overall savings.

6.5. Changing Crewing Levels on Fire Engines

Fire engines in West Yorkshire are traditionally crewed by five firefighters. This practice reflects extant operational guidance and firefighting practices aimed at maintaining minimum standards of health and safety. Several fire and rescue services have moved away from using previous guidance and use bespoke risk assessment processes to determine crewing levels. Some services routinely crew fire appliances with four firefighters, whilst others limit this practice to multi-pump fire stations. Some fire and rescue services have operated in this way for a number of years with no detrimental effect and with a declining number of firefighter injuries.

Reducing crewing levels to four rather than five riders saves potentially £145,000 at each wholetime shift fire station. Unlike some of the other operational efficiency options, this initiative will not affect fire engine response times. The initiative therefore has potential to deliver substantial savings with minimal effect on service delivery standards.

WYFRS recognise that firefighting can be a dangerous occupation and is committed to maintaining the health, safety and welfare of its firefighters. A detailed risk assessment process will therefore underpin any decision to change crewing levels on our fire engines. Changes in firefighting tactics and the use of new technology may allow this option to be delivered without affecting firefighter safety.

6.6. Restructuring Support Functions

During 2012, WYFRS completed a Fundamental Review of support functions. The review scrutinised and challenged the value of each post in the organisation. It identified scope to restructure departments and run their functions with fewer employees. Following this review the number of support posts was reduced by 80. We will need to revisit this again to determine if there is further scope to restructure other departments

within the organisation and to make them more efficient. This will include consideration and collaboration with other services and organisations.

6.7. Extending the Retained Duty System (RDS) Firefighter Role

RDS or ‘on-call’ firefighters, are part-time firefighters that live or work within close proximity to a fire station operating the RDS duty system. These firefighters fulfil the same role as a wholetime firefighter, but may have full-time employment outside of the fire service and respond to emergency calls within their local area as and when required. These fire stations are generally located in very low risk areas and have few fires and other emergencies. The RDS duty system is a low cost and risk-proportionate option for providing these areas with fire and rescue cover.

WYFRS does not operate this duty system in higher risk areas of the county where operational activity levels are much greater. It can take up to five minutes for on-call firefighters to respond to a fire station following receipt of an emergency call. They would therefore struggle to meet the RBPA for life and property risk incidents in higher risk wards.

Toward the end of the current IRMP, WYFRS will have five multi-pump fire stations. Their locations will be Bradford, Dewsbury, Leeds, Huddersfield and Killingbeck. Firefighters working the wholetime duty system continually crew two fire appliances at these fire stations. This duty system requires 44 firefighters at each station costing around £1.7 million every year.

During the past five years, operational activity levels have reduced by between 36% to 48% in wards provided with fire and rescue cover by these fire stations. This significant reduction in operational activity means that there is much less demand for second fire appliances and therefore less justification to crew them using the current wholetime duty system. Two fire appliances are more sustainable if at least one is crewed using a more efficient duty system. Crewing one of the appliances using firefighters aligned to the RDS duty system is therefore an option.

One fire appliance providing an immediate attendance will enable a swift response to incidents of a more serious nature. It will also help WYFRS meet the challenging RBPA for higher risk wards. Supplementing this initial response with a further appliance crewed by RDS firefighters helps to provide appropriate support but at significantly reduced cost.

Recruiting and retaining RDS firefighters can be difficult, but this is generally because of local demographics. The demographics in large towns and cities are very different and

there is a much wider catchment area for prospective RDS firefighters. It may therefore be feasible to recruit sufficient individuals to crew a fire appliance. Changing the crewing system for one fire appliance will have some impact upon service delivery levels and may require consultation with external stakeholders. This option has potential to deliver significant savings without capital investment and without significant impact upon our initial emergency response time.

6.8. Flexible Employment Contracts

We will explore opportunities to employ current firefighters (including RDS) and support staff on a secondary or 'resilience contracts' in order to guarantee their availability at short notice during periods of staff shortage. Resilience contracts may be offered to existing employees who could be asked to provide one or more of the following:-

- a minimum number of additional shifts during the year
- short notice standby cover
- guarantee their availability for events which may threaten or cause disruption to the provision of services and business continuity including industrial action

WYFRS Resilience Pumps are currently crewed by firefighters via recall to duty arrangements. During periods of high operational activity, it may be possible to utilise staff on resilience contracts to supplement the number of firefighters available to crew Resilience Pumps. Such arrangements will support service delivery standards and if combined with reductions in resources during times of very low activity, could achieve substantial savings.

We will also explore opportunities to employ staff to fulfil specific emergency response roles to support our front line emergency crews. Their duties could include:

- dealing with smaller fires that do not require complex tactical firefighting techniques
- responding to incidents of a less serious nature and damping down during the closing stages of fires
- using staff to relieve firefighters at larger fires once they are under control
- undertaking community safety activities

These measures will increase the availability of wholetime firefighters allowing them to respond to life risk incidents.

Staff employed on these contracts could crew Fire Response Units (FRUs) during peak periods of activity where they offer most benefit and discontinue the current primary crewing arrangements.

The contractual arrangements for staff who are willing to work more flexibly could include annualised hours. This is a flexible employment option where the employee is paid for the total number of hours worked over the whole year, and the actual weekly contractual hours vary to account for busy and quiet periods. Employees with Annualised Hours working arrangements work a longer day when the service is busy and work shorter hours when there is less demand, but are paid the same amount each month, with a guaranteed minimum income.

Organisations using these contracts have been able to achieve significant savings while providing greater flexibility. It may be possible for WYFRS to introduce similar contracts and for these to complement the flexibility provided by the Operational Resource Pool. Introducing annualised hours does not have an impact upon service delivery standards, but will require WYFRS to negotiate with employee representative bodies or directly with employees over working hours and pay.

6.9. Releasing Assets

WYFRA retains an Asset Register, which is a portfolio of the location, age, design, condition and size of each building it owns. The portfolio also provides three separate valuations for sites:

- market valuation
- existing use valuation
- replacement cost valuation

The portfolio provides a useful source for determining the liabilities, investment needed and potential release values for each asset. It is therefore a good starting point for determining longer-term viability for each site and for highlighting potential to provide services differently.

Over the past three years we have been replacing and merging fire stations to ensure they are strategically located to best meet appropriate response standards. The location of other assets, for example training and administrative facilities are less location critical, but reflective of need and general accessibility. We have rationalised our buildings over

the past few years, moving some functions from the Headquarters site at Birkenshaw to the Service Delivery Centre at Bramley.

Over the next few years we will consider if there is further scope to change the delivery method for operational and support services, relocating or merging where appropriate.

With a number of new fire stations and administrative centres complete, we will review the remaining assets to determine their future requirements and value. The outcome of this process will recommend one of six options:

1. **Retain**; a likely outcome for assets that are in good condition, in the right location and that operate efficiently
2. **Refurbish**; a likely outcome for assets providing the desired services but are in poor condition
3. **Release**; this is a particularly attractive option where a building is surplus to requirements and has a high alternative use value
4. **Replace**; either on site or elsewhere, and the likely outcome whenever optimising resources and where service delivery requirements are not being met
5. **Change use**; a likely outcome for assets that are in good condition but opportunity exists to make better use of them
6. **Share**; an attractive option where spare capacity exists and there are co-location opportunities

Implementing IRMP initiatives means that WYFRS will have an abundance of spare capacity/floor space at several of its sites. There is scope to either sell this spare capacity or enter into lease arrangements. Co-location arrangements already exist at a number of our fire stations and these are mutually beneficial while providing WYFRS with additional income.

All WYFRS site assets have two valuations based upon Depreciated Replacement Cost (DRC) and Potential Alternative Use (PAU). The validity of the DRC valuation is dependent upon using assets for their current purpose, for example as fire stations. The PAU valuation however reflects the suitability of assets for other purposes, for example residential development.

The majority of fire stations have high DRC valuations but significantly lower PAU valuations. There is very little opportunity to release fire station sites to other emergency service providers and therefore the PAU is the most appropriate valuation for these

assets. In contrast, our Fire Service Headquarters site has a significant PAU value and provides substantial development opportunities.

Although the primary purpose of WYFRS assets is not to release value, the sale of sites and extending co-location arrangements may be attractive in certain circumstances. There is clearly scope to sell surplus fire station sites and there is scope to release surplus assets from our Headquarters site and to use the proceeds to pay off some of the Authority's debt or fund other capital schemes.

7. The Impact of Change

Forecasting and measuring the impact of proposed changes can be difficult. WYFRS uses a number of impact assessments within its planning and performance operations to assist with this. Community, equality, firefighter safety and organisational assessments form part of the business case for service delivery changes. The outcomes of these assessments are used to detect and understand the broad and long term trends to provide a wider context for potential impact.

WYFRA will continue to deliver high quality services against a backdrop of affordability. Standing still is not an option though and we accept that we must adapt and continue to reshape our organisation. Change does not necessarily mean moving backwards and over the past decade WYFRA has demonstrated that it can lead to service improvements. In this time, the Authority has approved several initiatives against the backdrop of reduced funding whilst delivering improvements in public and employee safety.

Internal and independent modelling supports how WYFRS forecast the impact of resource provision changes, for example the number of fire appliances. The details of this modelling will accompany any proposals for change and WYFRS will communicate them during consultation processes. Internal data also helps WYFRS to measure the impact of change against agreed service delivery standards and expectations, for example the RBPA. Performance against these expectations will continue to be available via web portals in our Service Plan 2015-2020 and intermediate annual Action Plans.

This Strategy acknowledges the growth in West Yorkshire's population, the number of buildings and the number of vehicles using its roads. However we expect that the number of emergencies we respond to will continue to reduce.

Household furnishings and products meeting new fire safety standards and recent developments in building design have significantly reduced the risk of fire. Smoke alarm ownership is widespread and still increasing and partnerships are delivering real improvements in risk reduction and accident prevention work. Our analysis shows that these are the reasons why people are experiencing fewer emergencies and calling us less. We have no reason to believe that this trend will change and we are therefore confident that risk will continue to fall in West Yorkshire. We will continue to respond to changes in risk and demand to deliver the best possible service to our communities.

8. Consultation

We are committed to openness and engagement with internal and external stakeholders. If we do not communicate effectively or provide adequate opportunity to comment on our services or plans, we will fail to convince people that what we are doing is right. By engaging and consulting with stakeholders, we are able to capture a full range of opinions and interact with communities regarding their needs. This will help us to ensure that our plans draw upon a wide section of views and represent the best fit for local requirements.

Our Communication and Engagement Strategy follows national guidance and provides the guiding principles on how extensive each consultation exercise needs to be. Our aim is to have open dialogue with any individuals or organisations affected by our proposals and provide them with the opportunity to express their views. The way that we communicate with stakeholders will continue to keep pace with modern technology and different ways of working. We anticipate growth in using online mobile media and social media sites to give and receive information. Conversely, we expect that the demand for more traditional consultation methods for example face-to-face meetings and written communication will reduce.

It is critical that we have opportunities to listen to stakeholder views and for these to help shape the delivery of services. Appropriate consultation will therefore take place over proposals to change services and the results of the process published in a transparent manner.

Our Communication and Engagement Strategy aims to explain what we are doing, why we are doing it and what the impact will be. Our responsibility remains to deliver the best possible service with the resources we have available, focussing on those at greatest risk. Our services will therefore be equitable but not necessarily equal.

9. An explanation of the most common Duty Systems in use in the Fire and Rescue Service

9.1. Whole time 2x2x4 shift based

This system operates using full time firefighters via four shifts (watches). Each watch provides two periods of daytime duty (8am to 7pm), two periods of night time duty (7pm to 8am) followed by four rest days. Only one watch is available at any time therefore at least 75% of fire station employees are unavailable at any given time. This duty system provides continual emergency cover but is not justifiable for areas of the county with lower levels of risk and operational activity.

9.2. Day Crewing

The Day Crewing duty system is a long established duty system and uses two watches of wholetime firefighters covering 24 hour duty periods. This duty system normally operates using four continual 24 hour periods of duty followed by four rest days. It requires firefighters to work during the day at a fire station and to respond to emergencies from home during the night time and evenings. The Day Crewing system therefore requires firefighters to live within close proximity to a fire station in order to provide an acceptable response during standby hours. Emergency response times generally increase during periods of standby, therefore this duty system is normally appropriate for areas of the county with low and very low risk levels. It is however, a cost effective way of providing such areas with emergency cover.

9.3. Day Crewing (Close Call)

The Day Crewing (Close Call) duty system uses a pool of full time firefighters who work flexibly across our three Day Crewing (Close Call) fire stations. To maintain a minimum number of on-duty staff at all times, the three fire stations are clustered together and firefighters work flexibly to ensure a crew of five is available at each station on a self-rostering basis. In common with the traditional Day Crewing model, it requires firefighters to work during the day at a fire station. However, they respond during the night time and evenings from purpose built accommodation adjacent to the fire station. Emergency response times are therefore comparable to those of wholetime shift-based fire stations. This duty system provides a balance between the wholetime shift-based and Day Crewing duty systems. It is therefore best suited to areas with medium levels of risk where shift based system presents an overprovision, and where the Day Crewing system cannot meet the RBPA requirements.

9.4. Retained Duty System (RDS)

The RDS is comprised of part-time firefighters that live or work within close proximity to a fire station. Most RDS fire stations need around 12 part-time firefighters to maintain good availability of a fire appliance. RDS firefighters receive similar training to full time firefighters and respond to the same types of emergencies. They receive an annual retainer fee and payment for each emergency call or training session attended. The costs associated with providing a RDS fire station are therefore much lower than those of fire stations crewed by full time firefighters. It generally takes longer to mobilise a fire appliance crewed by RDS firefighters, because of the time taken for firefighters to respond to the fire station from their respective homes and/or places of work. This duty system is therefore normally appropriate for areas of the county with low and very low risk levels. It could, however, provide a cost-effective alternative for crewing fire appliances at multi-pump fire stations.

9.5. Nucleus Crewing

The traditional Nucleus Crewing duty systems provide 'office hours' emergency cover using wholetime firefighters. Generally, one watch comprising of six firefighters provide daytime fire appliance availability by working forty-two hours per week. A modern and more efficient application for this duty system would require firefighters to provide emergency cover during the busiest periods. This means providing cover during the hours of peak activity and not from 9 am to 5 pm. Previous versions of this duty system have utilised RDS firefighters to provide emergency cover outside of the hours covered by wholetime firefighters. This duty system may be appropriate for areas of West Yorkshire with lower risk levels, or for providing specific cover during hours of higher operational activity.

9.6. Flexible Duty System (FDS)

Officers on this system perform two types of duty:

1. Managerial; also known as 'positive hours', averaging 48 hours per week
2. Standby/call-out duty, roistered to ensure employees are available (on call) for operational duties. FDS officers respond to operational incidents using a lease car equipped with blue lights and a siren.

WYFRS FDS officers work an average of 72 hours per week, by combining managerial and standby duties. Officers are allocated different rota groups and generally follow the working pattern for their respective rotas. The duty system is flexible to meet the needs of the organisation and for officers to regularly change their planned duty patterns to suit

requirements. Operational planning assumptions consider a number of incident scenarios and help to inform the minimum number of FDS officers required for operational purposes. They ensure an appropriate number of FDS officers for command and specialist reference purposes.

9.7. Operations Resource Pool (ORP)

The Operational Response Pool (ORP) provides a number of personnel to ensure that standard staffing is provided on fire appliances as and when demand requires covering leave, training or long-term sickness. The pool consists of firefighters and watch officers contracted to work an average 336 hours over an 8-week cycle. ORP members can be used for other duties such as project work, training and any other duties appropriate to their role and qualifications.

9.8. Part-time Working, Job-Share and Temporary Negotiated Hours

Part-time working may be carried out on reduced hours i.e. less than 42. The part-time working pattern and number of hours would vary from person to person.

Job sharing involves one full-time post (42 hours) shared by two people with comparable skills and experience. The responsibilities and duties of the post may be divided on an hourly, daily or weekly basis.

Temporary negotiated hours allow employees to work reduced hours or a change of work pattern for a defined period of time no longer than 12 months.