



Hertfordshire
Fire and Rescue Service

Integrated Risk Management Plan

2019-2023

Making Hertfordshire the
safest county in which to live,
work or visit

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1 Introduction



Darryl Keen
Director, Community
Protection Directorate
and Chief Fire Officer



Terry Hone
Executive member for
Community Safety

A welcome from Darryl Keen, our Director of Community Protection and Chief Fire Officer and Terry Hone, Executive Member for Community Safety and Waste Management to the Integrated Risk Management Plan (IRMP).

Every day Hertfordshire Fire and Rescue Service (HFRS) makes a positive difference to the lives of the people in Hertfordshire and to the communities in which they live and work. However, we want to continue to improve as an organisation to make sure we are meeting the changing needs of our communities and to mitigate the risks they face. Our ambition therefore is bold; we want to make Hertfordshire the safest county in which to live, work or visit. This means thinking differently about how we deliver our core services but also understanding our wider contribution to citizen safety. It is about reaffirming our commitment to providing an efficient, effective and high performing service by working in collaboration with partners to deliver the best possible outcomes for the residents of Hertfordshire.

This IRMP sees the operational landscape for fire and rescue services changing, and the role of the fire and rescue service evolving in order to meet the challenges and realise the opportunities of the 21st century. The influence and impact of pervasive technology; an ageing and increasing population; climate change; predicted infrastructure growth; the need for workforce reform and the requirement for fire and rescue services to contribute to a wider community safety agenda means this IRMP will provide the foundation for a longer term approach to mitigating the risks in Hertfordshire and delivering a fire and rescue service that is innovative, inclusive and relevant.

In order to do this we will be testing and researching new concepts regarding our operational response; evaluating alternative crewing and staffing arrangements and ensuring our on call service is both relevant to the demands placed upon it and more flexible in order to better reflect the way on call firefighters operate in Hertfordshire today. We are also committing to our greatest asset - our workforce, by investing in our training provision to ensure everyone can develop their skills and competencies.

Of course, our ambition must also be rooted in understanding the risks and challenges before us. This IRMP has taken a thorough and comprehensive look at the risks both within and beyond the borders of Hertfordshire. In order to meet the demand placed on the Service, both now and in the future we must think differently, think smarter.

In support of improving the way HFRS operates, this IRMP confirms a commitment to ever closer working arrangements with our emergency service partners; particularly with the Police and Crime Commissioner for Hertfordshire and Hertfordshire Constabulary through the signing of a new Memorandum of Understanding (MoU) on collaboration and joint working. This commitment to drive collaboration further and faster offers HFRS the opportunity to deliver services across organisational boundaries and in an ever more efficient way.

With a bold vision and an innovative programme of change, we are determined to provide an excellent public service which is both citizen focused and cost effective. The challenges and opportunities identified in this IRMP mean we cannot stand still as an organisation. We must be proactive and utterly focused on delivering a fire and rescue service able to meet the needs of the residents of Hertfordshire.

2 Overview

Hertfordshire Fire Authority is the publicly accountable body consisting of elected councillors from across Hertfordshire. The authority manages the fire and rescue service on behalf of the communities of Hertfordshire. HFRS is part of the Community Protection Directorate (CPD) which is one of the six Directorates within Hertfordshire County Council. HFRS is led by the Chief Fire Officer; assisted by the Strategic Leadership Group (SLG).

The Service operates from 29 fire stations, a headquarters building, training and development centre, and a number of additional sites providing support services. Emergency call handling is provided by a dedicated Hertfordshire based Fire Control building and we achieve resilience through the East Coast Fire Control Consortium, which is delivering interoperability between Hertfordshire, Norfolk, Humberside and Lincolnshire.

Key Drivers

There are a number of external influences that fire authorities must consider when determining the decisions and actions of a fire and rescue service. The Fire and Rescue Services Act (2004); The Health and Safety at Work Act (1974); The Civil Contingencies Act (2004); The Regulatory Reform (Fire Safety) Order (2005); The Fire and Rescue Services (Emergencies) Order (2007); The Localism Act (2011); The Policing and Crime Act (2017) and The Fire and Rescue National Framework for England (2018) are all key drivers pertaining to fire and rescue activity.

The Government's 'Fire Reform Programme' is also a significant driver for organisational change within fire and rescue services and is based on three pillars:

- **Accountability and transparency**
- **Efficiency and collaboration**
- **Workforce reform**

We are committed to this reform programme as we look to evolve the Service to be evermore innovative in its approach, more reflective of the communities it serves and focused on being a better organisation.



Fire and Rescue National Framework for England

The Fire and Rescue National Framework for England provides the overall strategic direction for Fire and Rescue authorities. Within the framework, each authority is required to produce an IRMP that identifies and assesses all foreseeable fire and rescue related risks that could affect its community. Each IRMP must demonstrate how prevention, protection and response activities will best be used to mitigate the impact of risk on its communities.

An IRMP must:

- reflect up to date risk analyses including an assessment of all foreseeable fire and rescue related risks that could affect the area of the authority;
- demonstrate how prevention, protection and response activities will best be used to prevent fires and other incidents and mitigate the impact of identified risks on its communities, through authorities working either individually or collectively, in a way that makes best use of available resources;
- outline required service delivery outcomes including the allocation of resources for mitigation of risks;
- set out its management strategy and risk-based programme for enforcing the provisions of the Regulatory Reform (Fire Safety) Order 2005 in accordance with the principles of better regulations set out in the Statutory Code of Compliance for Regulators, and the Enforcement Concordat;
- cover at least a three-year time span and be reviewed and revised as often as it is necessary to ensure that the authority is able to deliver the requirements set out in this Framework;
- reflect effective consultation throughout its development and at all review stages with the community, its workforce and representative bodies and partners; and
- be easily accessible and publicly available.

2 Overview



We are committed to the national fire agenda and support the National Fire Chiefs Council (NFCC) in delivering its strategic priorities. We also work collaboratively with partners across the Eastern region and this has latterly included helping to facilitate a regional approach to the adoption of National Operational Guidance (NOG).



HFRS was inspected by Her Majesty's Inspectorate of Constabulary and Fire and Rescue Services (HMICFRS) in July 2018 and will need to respond to any recommendations made as a result.



The financial crash in 2008 and the subsequent spending reviews since 2010 have meant HFRS, like all public sector organisations, has operated within a fiscally challenging environment. This looks set to continue and HFRS will need to ensure it continues to deliver its services in the most efficient and effective way.



2 Overview

Statement of Assurance

In line with the Hertfordshire County Council (HCC) annual governance statement, HFRS is committed to ensuring that its business is conducted in accordance with the law and proper standards, that public money is safeguarded and properly accounted for, and is used economically, efficiently and effectively.

HFRS has a duty under the Fire and Rescue Services Act 2004 to make arrangements to obtain necessary information for the purposes of: extinguishing fires, protecting lives and property from fire, rescuing and protecting people from harm from road traffic collisions or for dealing with any other emergency function other than fires and road traffic collisions.

We will ensure that mutual aid arrangements with neighbouring fire authorities are in place and that plans are also in place for the support and deployment of resources in response to a national major incident. In discharging this overall responsibility, the Service has in place proper arrangements for the governance of its affairs, and facilitating the effective exercise of its functions, which include arrangements for business continuity and the management of risk.

2 Overview

How we got here

The last few years have been particularly challenging for local government. HCC has had to reduce spending by £250 million since 2010/11 whilst protecting its services.

There are also significant pressures from the changing nature of our population as many people are living longer, living alone and becoming more vulnerable for longer in older age. To meet the challenges ahead we will have to continue to improve the way we work and challenge ourselves to do things differently.

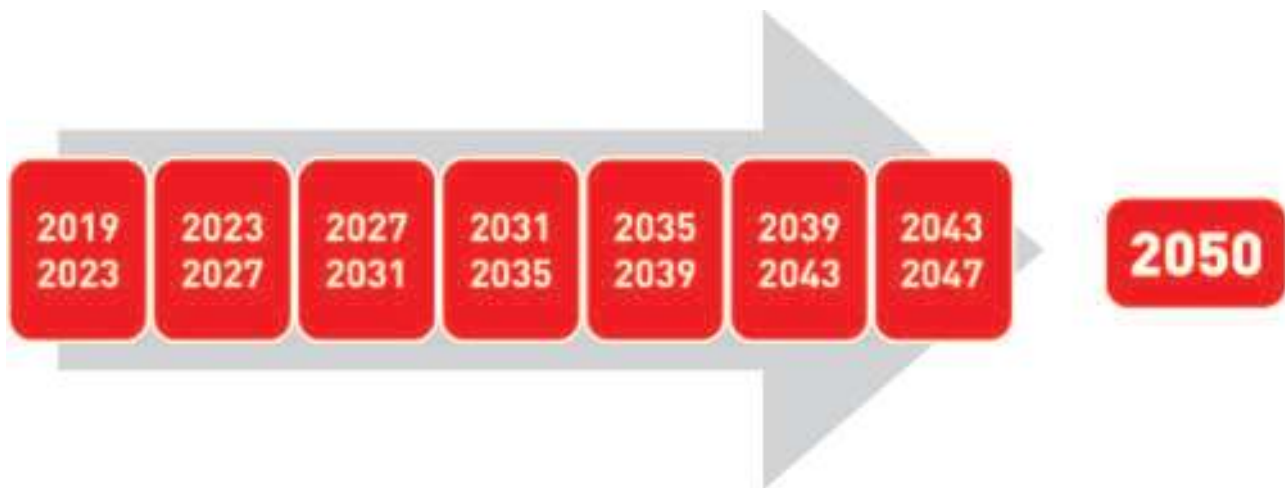
Over the past 5 years, Hertfordshire Fire and Rescue Service has made a number of changes to the way in which fire and rescue services are delivered across Hertfordshire. These include:

- 1. Implementation of a comprehensive consultation and engagement process with our workforce to identify improvements and efficiencies in how we work.**
- 2. The introduction of new crewing systems.**
- 3. Reducing the number of flexible duty officers.**
- 4. Reducing the number of support staff by sharing more support services through HCC.**
- 5. Making efficiency savings through collaborative procurement arrangements for personal protective equipment (PPE), breathing apparatus sets, mobile data terminals, high pressure air mats and fire engines.**
- 6. Providing improved resilience for our Fire Control function through the East Coast Consortium.**

2 Overview

Integrated Risk Management Planning for 2050

This IRMP introduces the concept of 2050 planning. This means looking much more long term at the risks as they will develop over time and setting the foundations for IRMPs to come. We believe it is also prudent to continually review our knowledge and understanding of advances in technology such as autonomous vehicles, the Internet of Things (IoT), Smart City and renewable energy so that we can develop and grow our fire and rescue service to match the changing needs of the communities we serve.



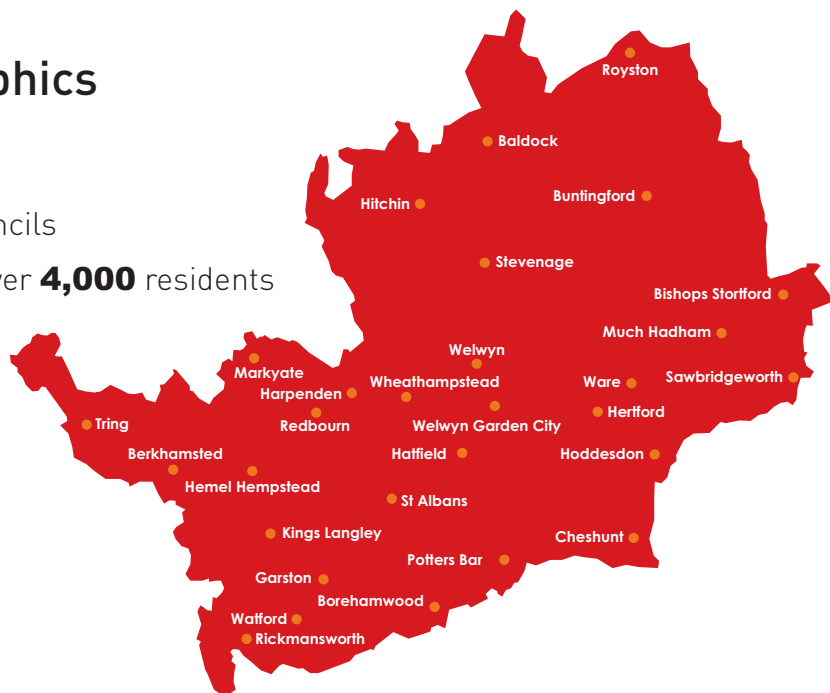
3 Hertfordshire Context

HFRS is very much embedded within the communities it serves, but we are constantly striving to better understand their needs and ensure our services reflect those needs. In order to do this we have taken a closer look at what makes Hertfordshire a fantastic place to live, and by better understanding the makeup of its population, we can play our full part in improving the lives of its citizens further still.

Citizens: Demographics

Hertfordshire has:

- 10** Districts or Borough Councils
- 40** Large settlements with over **4,000** residents
- 78** Electoral Divisions
- 178** Wards
- 690** LSOAs*

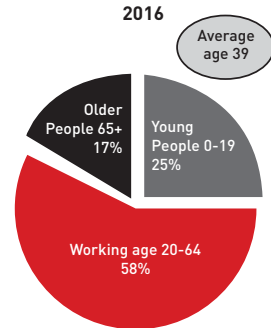


*The English indices of deprivation is measured using Lower Super Output Areas, (LSOAs),

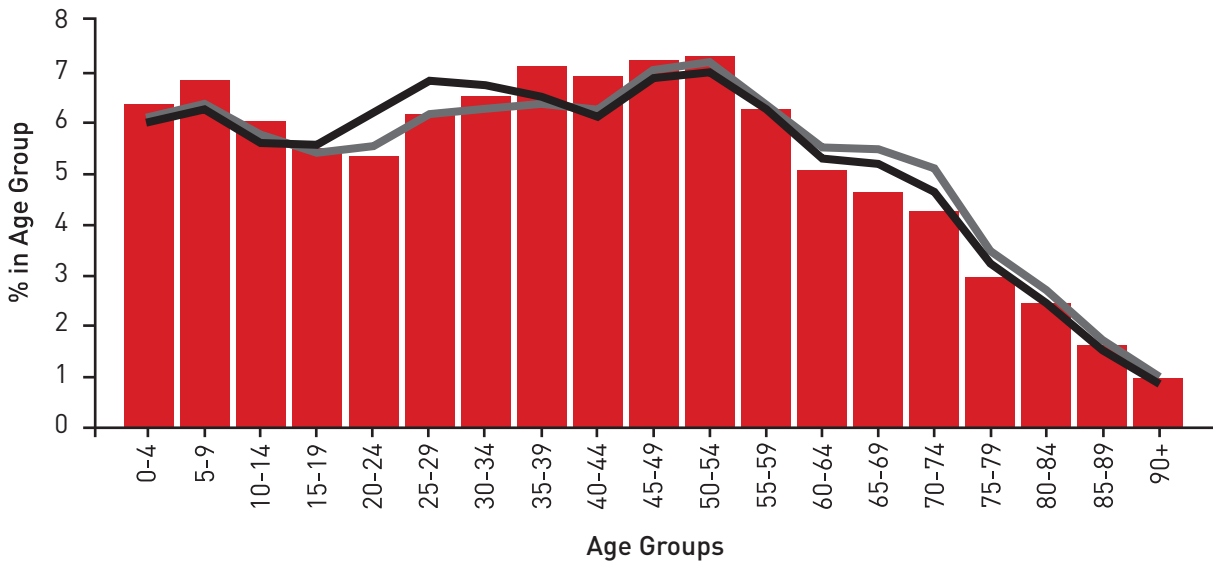
3 Hertfordshire Context

Citizens: Population

total residents now
1,180,900

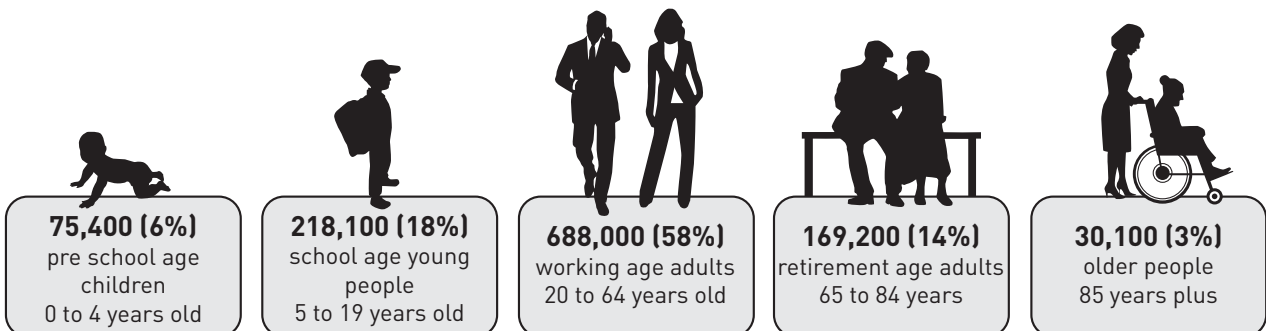


Age structure of those living in Hertfordshire at mid-2017 (%)



- Hertfordshire
- England
- East of England

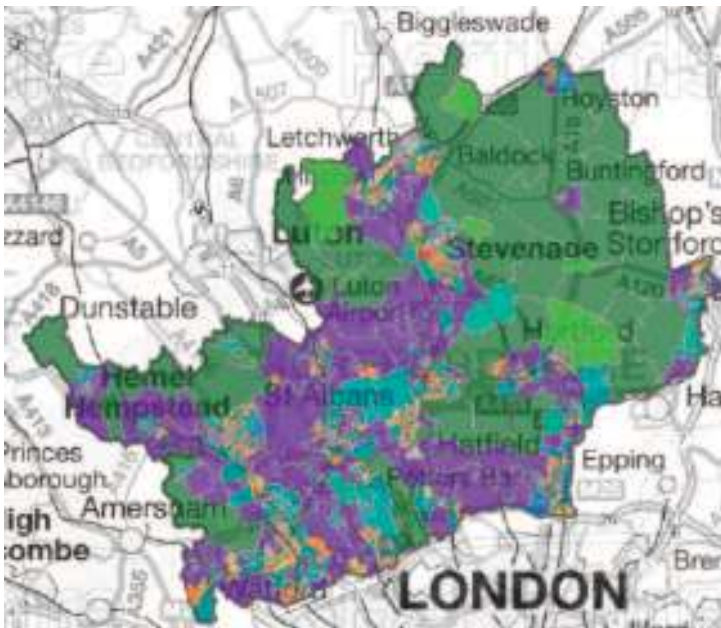
Source: Office for National Statistics, Mid Year Population Estimates.
 Figures rounded to the nearest 100 have been used to calculate these percentages.



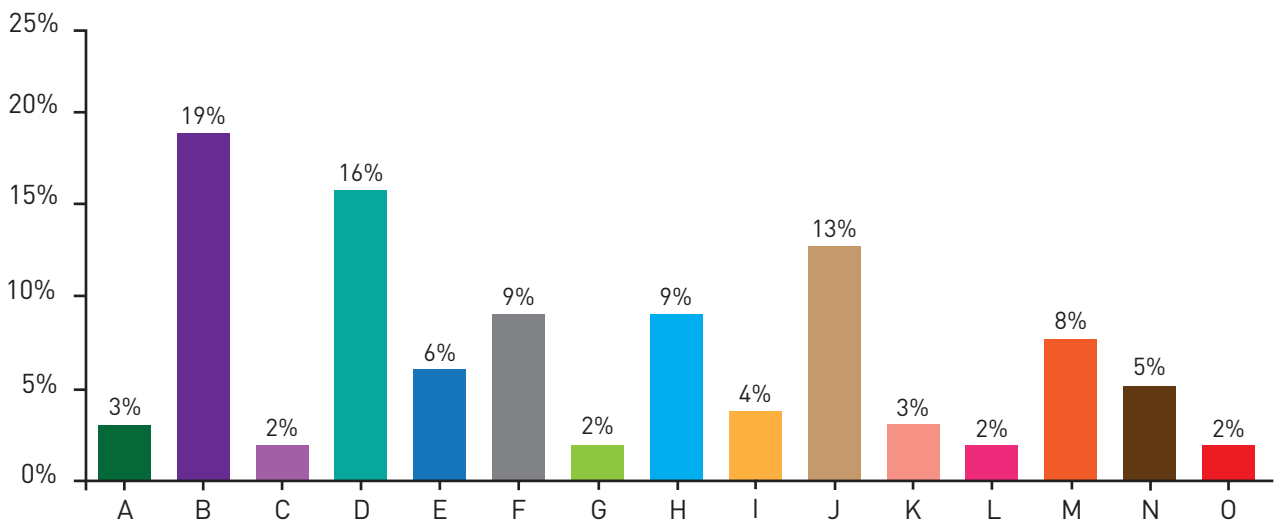
3 Hertfordshire Context

Citizens: Population Personas

What type of citizen lives where?



Group Name	Count	District	Hertfordshire Total
A Country Living	14957	3%	3%
B Prestige Positions	92233	19%	19%
C City Prosperity	9305	2%	2%
D Domestic Success	77156	16%	16%
E Suburban Stability	29526	6%	6%
F Senior Security	42011	9%	9%
G Rural Reality	7779	2%	2%
H Aspiring Homemakers	44841	9%	9%
I Urban Cohesion	18046	4%	4%
J Rental Hubs	62432	13%	13%
K Modest Traditions	12725	3%	3%
L Transient Renters	8545	2%	2%
M Family Basics	38044	8%	8%
N Vintage Value	25430	5%	5%
O Municipal Challenge	8549	2%	2%



Hertfordshire by Mosaic Group

Mosaic Public Sector takes over 450 variables and creates geodemographic profiles for 16 Groups and 66 Types.



3 Hertfordshire Context

Citizens: Deprivation

Index of Multiple Deprivation

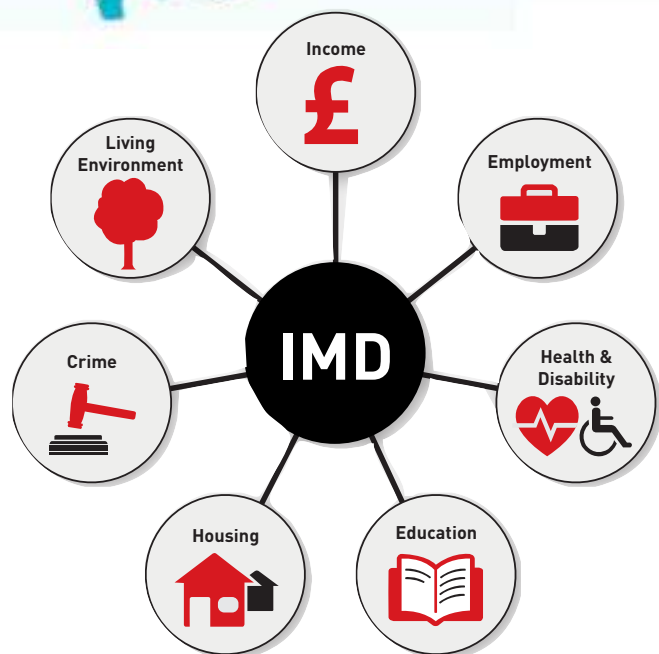
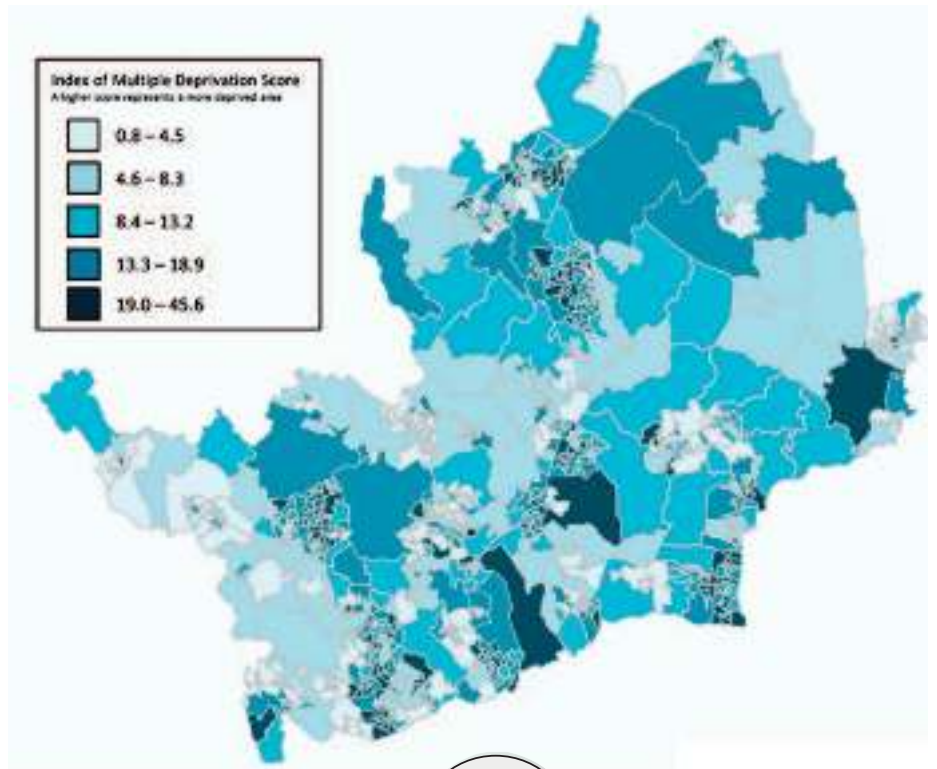
The Index of Multiple Deprivation (IMD) 2015 is the official measure of relative deprivation for LSOAs* (or neighbourhoods) in England. Each LSOA in England is ranked.

IMD is an amalgamation of **7** domains each of which reflect a different

aspect of deprivation experienced by those living in an area.

Hertfordshire contains **690** LSOAs* of which **2**

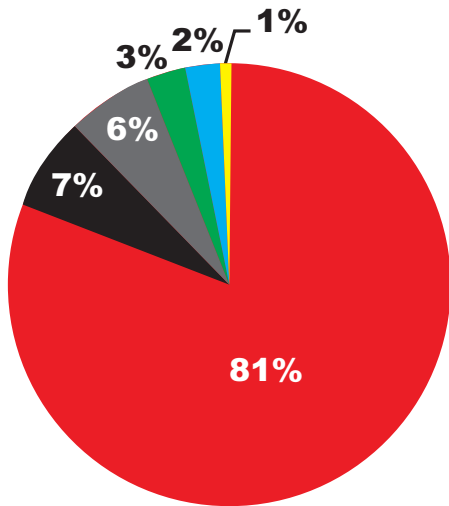
are in the **10%** most deprived areas in England (**0** in 2010) and **187** in the **10%** least deprived (**194** in **2010**).



*The English indices of deprivation is measured using Lower Super Output Areas, (LSOAs), these are statistical neighbourhoods with a population of approximately 1,600 people. England contains 32,844 LSOAs

3 Hertfordshire Context

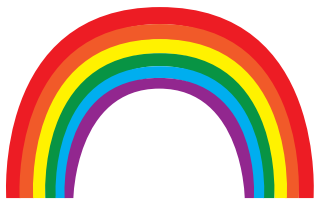
Citizens: Makeup



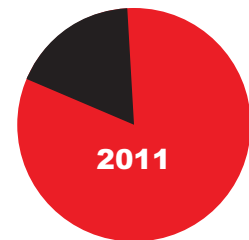
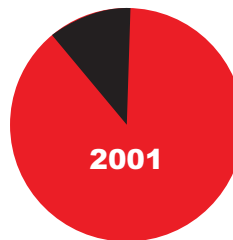
Ethnic group percentages for those living in Hertfordshire 2011

- White - British
- White - Other
- Asian or Asian British
- Black/African/Caribbean/Black British
- Mixed or Multiple ethnic group
- Other

14,000



The number of people who have identified as Lesbian, Gay, Bisexual or other in the 2011 Census.



% of residents from Black and Minority Ethnic groups up from **11% in 2001 to 19% in 2011**



- 1. Christianity **58%**
- 2. Islam **2.8%**
- 3. Hindu **1.9%**
- 4. Jewish **1.9%**
- 5. Buddhist **0.5%**
- No religion **26.5%**

Top 5 languages spoken in schools other than English

1 Polish	3,262 speakers
2 Urdu	2,186
3 Romanian	1,595
4 Gujarati	1,216
5 Tamil	1,082

only 0.93% of residents cannot speak english well

England, Hertfordshire County Council 2016 Market Position Careers Strategy.

3 Hertfordshire Context

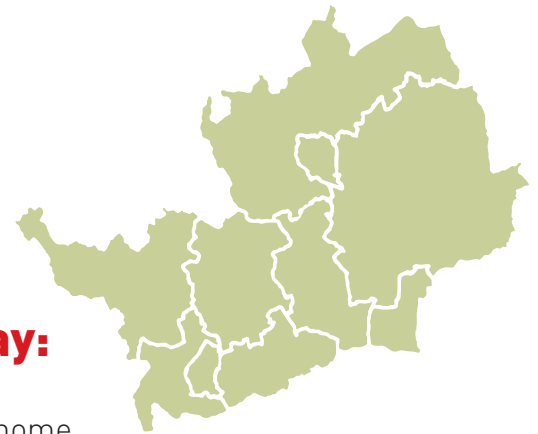
Key facts about Hertfordshire and Hertfordshire County Council services

Running services and helping people

Each year

- **902,000** adults live in Hertfordshire....
-and our social care services support **28,000** of these
- **750,000** calls made to our Customer Service Centre
- **42,700** school admissions applications (**97%** online)
- **15,000** free schools meals applications (**90%** online)
- **19,000** blue badge disability parking permit applications (**35%** online)
- **18,600** social care clients receive a review of their support
- **20,800** requests for help from new social care clients
- **3,200** carers provided with services, support or advice
- **3,200** people with a learning disability receive services
- **1,600** people receive support to help them with their memory or cognition
- **12,300** people receive help because they have a physical support requirement
- **6,000** referrals to children's social care
- **733** children put on child protection plans
- **56** adoptions and **58** Special Guardianship Orders to give these children a better, safer future
- **890** children looked after by the County Council in fostering and residential placements including **84** unaccompanied asylum seeking children
- **741** children ceased being on a child protection plan through support from Children's Services
- **80** unaccompanied asylum seeking children being looked after by the County Council
- **25,000** school children weighed and measured as part of the National Child Measurement Programme
- **5,800** young people attending "Learn 2 Live" safer driving education projects
- **2,600** people accessing drug and alcohol treatment
- **12,000** vaccinations to school age children
- **60,800** attendances at local sexual health and contraception services
- **70,000** people working in Hertfordshire benefiting from workplace health programmes
- **20,000** birth and death registrations
- **3,200** civil marriages registered
- **8,077** hours of Community Protection volunteers' time
- **460** Road Traffic Collisions attended by Fire and Rescue service
- **6,000** home fire safety visits
- **1,700** fire protection consultations
- **8,600** emergency calls handled by Fire and Rescue service
- **2,400** fires attended

3 Hertfordshire Context



- **2,055** home security service visits

- **3,200** sudden or unexplained deaths referred to the Coroner

- **30** trading standards call blockers installed

- **500** trading standards visits to scam victims

- **1,000** highways maintenance schemes delivered, including more than **10,000** potholes filled, across Hertfordshire's **3,000** miles of road that the County Council maintains

- **51%** of household waste recycled

Each month:

- **300,000** loans from libraries

- **50,000** visits to the HCC careers/jobs pages with an average of **190** vacancies being recruited to HCC

Each day:

- **15,000** home care visits a day, **1,200** people a day in day centres

- **110,000** street lights, **680** sets of traffic lights, **165,000** road gullies, **2,500** bridges to maintain

- **10,000** visits to libraries

- **11,000** visits (per week) to family centres

Where we spend your money

£1,245.83 for band D household



Children's Services
£294.74



Roads and Waste
£172.26



Public Health
£74.38



Registrars and Coroner
£2.82



Fire and Community Protection
£58.40



Financing and support for front line services
£55.25

Adult Care
£560.53



Libraries and other community services
£27.45

Figures based on County Council tax 2017/18

4 Our Framework

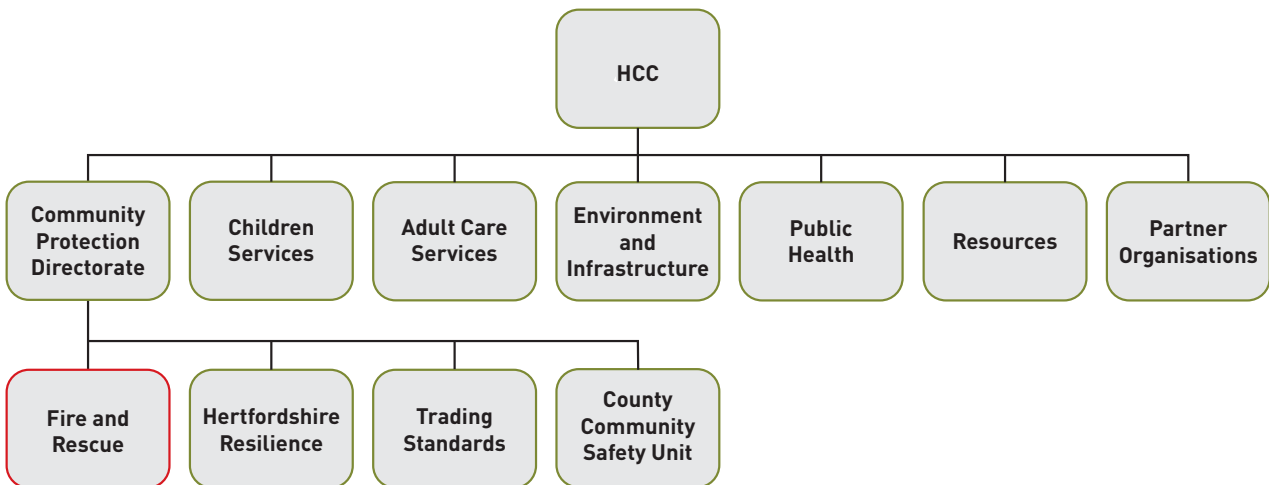
HFRS is an integral part of both Hertfordshire County Council (HCC) and the local communities it serves. As a county Fire and Rescue Authority, HFRS contributes to the wider ambitions of HCC and has a role beyond its statutory remit. The Corporate Plan (2017-2021) outlines HCC's vision:



“We want Hertfordshire to continue to be a county where people have the opportunity to live healthy fulfilling lives in thriving prosperous communities.”

This IRMP continues the unique contribution HFRS makes in helping to keep Hertfordshire a safe county in which to live, work or visit.

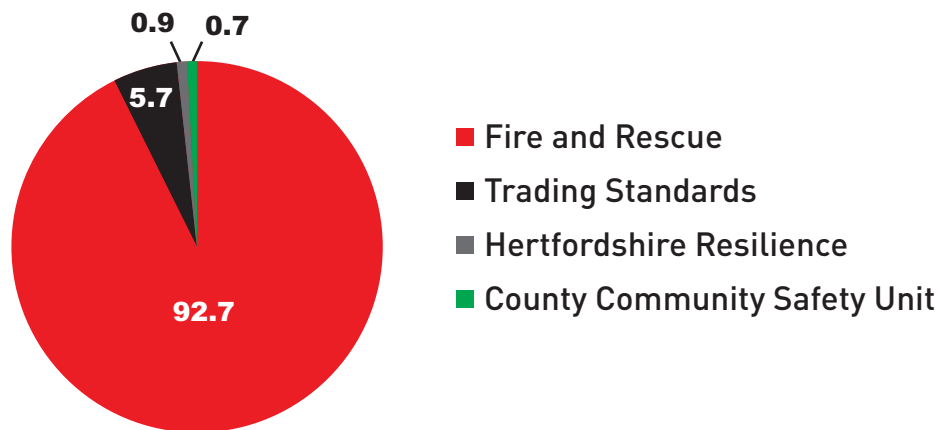
HFRS is part of HCC's Community Protection Directorate (CPD) and consists of four departments:



4 Our Framework

HFRS is by far the largest of the departments within the CPD accounting for 92.7% of the total budget distribution.

Community Protection Directorate budget distribution



In addition, the formation of the CPD provided the opportunity to reframe community protection work in Hertfordshire with HFRS Prevention, Protection, Trading Standards and the CCSU merging to form Joint Protective Services (JPS). The operational synergies between these key departments has helped realise organisational efficiencies and improved the services delivered to residents and businesses in Hertfordshire.

5 Performance

The Hertfordshire Fire Authority monitors performance of the organisation through the Community Safety and Waste Management Panel (CSWMP). Monitoring of performance within HFRS is provided by the Strategic Leadership Group (SLG), the Area Commanders Group (AC) and the Response and Resilience Group (R&R). Performance is measured by key performance indicators and benchmarking against both family group data and national data through the annual Fire Statistics monitor.

The infographics below show how Hertfordshire Fire and Rescue Service have performed against some of its key indicators and targets.

Sixth in Family Group 4 for number of fires attended per 10,000 of the population.
0.4% increase in number of fires attended compared to 14% increase nationally for the year ending June 2017.

4.15%

Reduction in primary fires in the year ending March 2018

4.8%

Increase in overall incidents in the year ending March 2018

8.7%

Increase in deliberate fires in the the year ending March 2018

7.7%

Reduction in road traffic collisions HFRS attended in the year ending March 2018

5.7%

Increase in secondary fires in the year ending March 2018

3243

Safe and Well Assessments by ops crews completed in the year ending March 2018

6 Evaluation of Service Delivery

Attendance standards to property fires

Attendance standards were set and agreed during the 2009/13 Fire cover review by the Fire Authority at **10 minutes on 90% of all occasions for the first fire engine attending, 13 minutes for the second fire engine and 16 minutes for the third fire engine** from the time the resources were assigned. These standards were maintained for the 2013/18 IRMP.

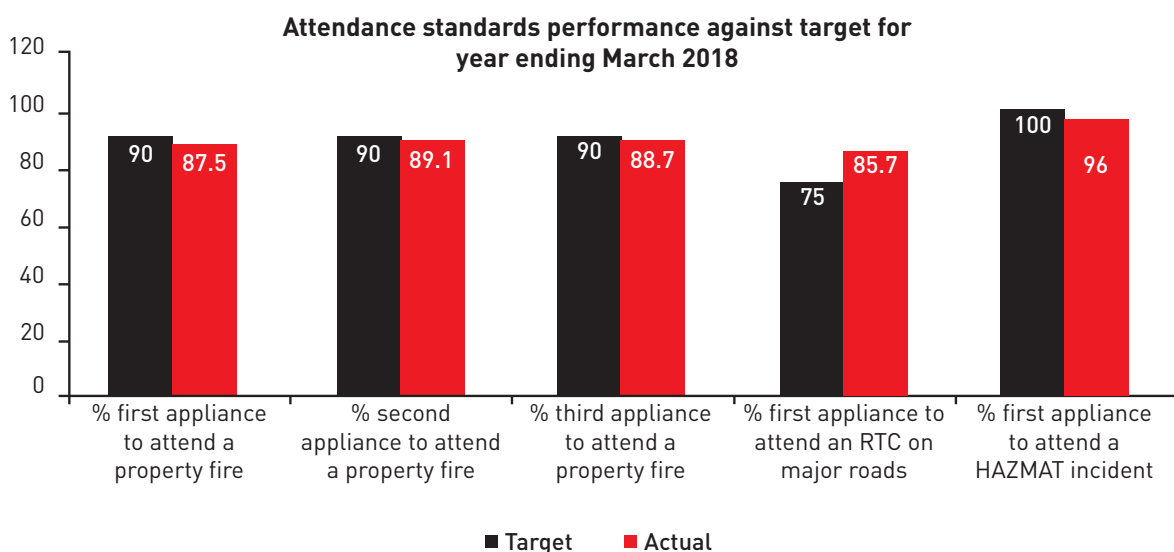
Attendance standards to Road Traffic Collisions (RTC)

Attendance standards to RTCs were set by the Fire Authority at **12 mins on 75% of all occasions.**

Attendance standards to incidents involving Hazardous Materials (HAZMAT)

Attendance standards to HAZMAT incidents were set by the Fire Authority at **20 minutes on all occasions for the first fire engine attending.**

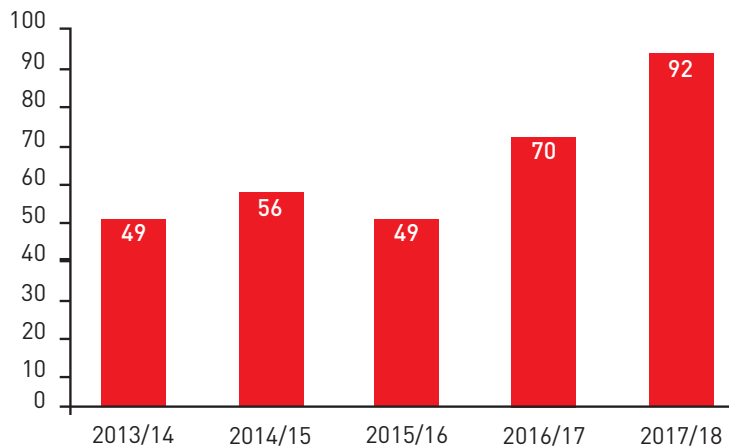
These attendance standards and planning assumptions will continue to be held as pillars upon which operational response will be built.



6 Evaluation of Service Delivery

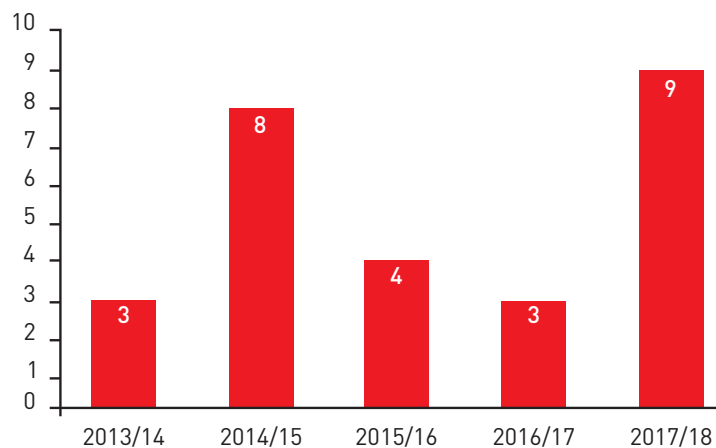
Injuries and deaths from fire

The number of injuries from fire has increased in Hertfordshire over the past year, up from 70 in 16/17 to 92 in 17/18. In England the number of injuries from fire has remained relatively stable. The reasons for the increase in Hertfordshire are related to a number of injuries received at two care home fires during the period. However, similar to the steady increase in fires being seen nationally, the number of injuries from fire is rising.



The number of deaths from fire has increased over the past year up from 3 in 16/17 to 9 in 17/18. This data must be viewed against the backdrop of four fire deaths in two care home fires within the period.

Deaths from fire

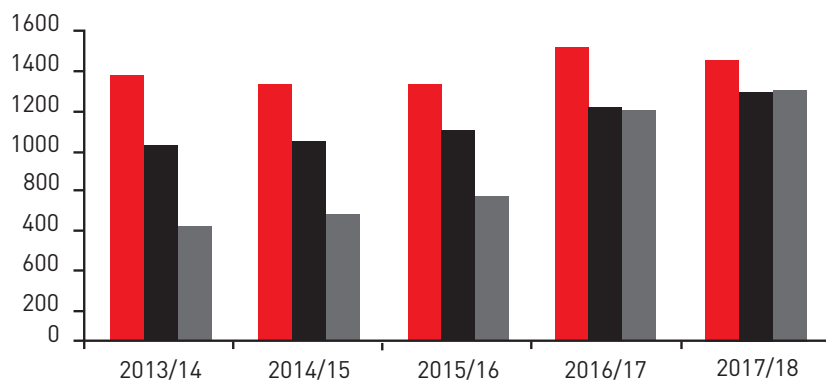


6 Evaluation of Service Delivery

Fires

The total number of fires has increased in Hertfordshire by 2.49 % over the past year, this compares to 3% nationally. In England the number of fires attended by fire and rescue services decreased for a decade between 2003/4 to 2012/13. Since then, the total number of fires has steadily increased.

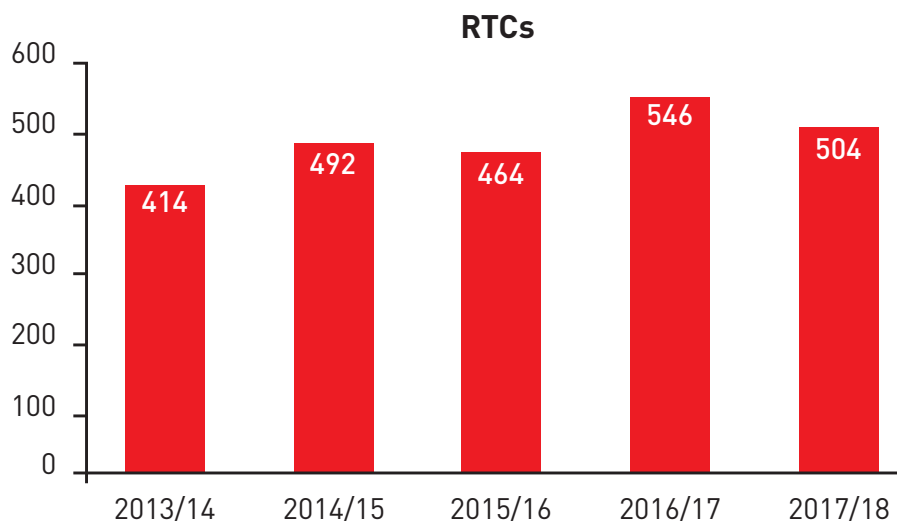
Fires - five year period



■ Primary fires	1339	1298	1290	1475	1414
■ Secondary fires	985	1010	1062	1231	1301
■ Deliberate fires	581	642	728	1205	1310

RTCs

The number of Road Traffic Collisions (RTCs) that HFRS have attended has decreased from last year but has remained relatively stable over the last five years. HFRS rescues significantly more people from RTCs than it does from fire related incidents and it continues to be the mainstay of our rescue work.

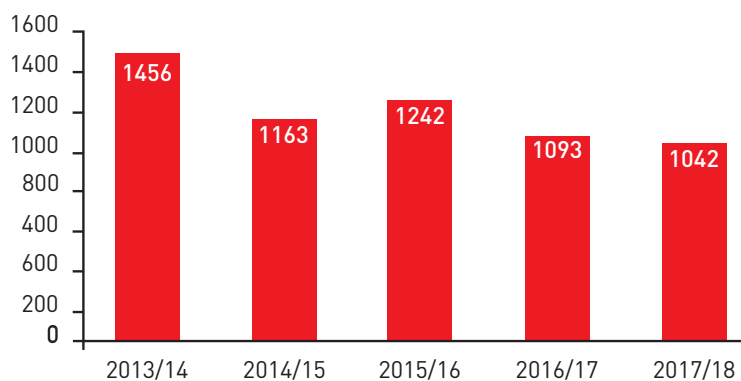


6 Evaluation of Service Delivery

Protection

The Grenfell Tower fire made national news and that, combined with two significant incidents that occurred in care homes in Hertfordshire during 2017, has raised the profile and importance of our fire protection work. We fully expect that fire protection and the delivery of fire protection services will be an area of development over the coming years.

Risk based inspections completed by the Service

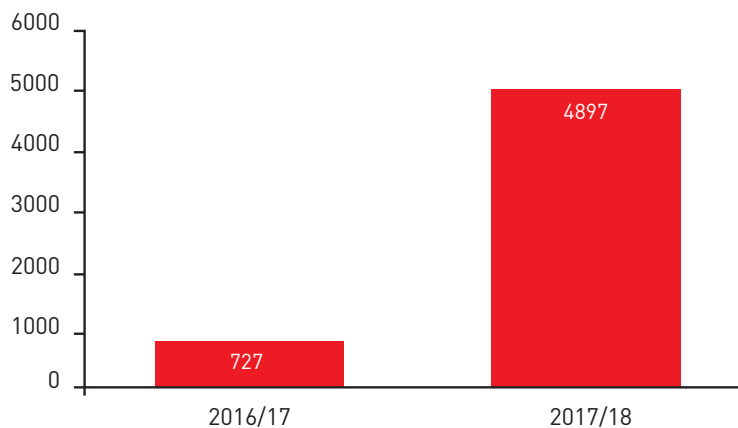


Prevention

The prevention of fires and the number of injuries and deaths from fire will continue to be a focus for our fire service activity.

Closer collaboration between the emergency services and partner agencies has seen the delivery of initiatives such as Safe and Well visits. This initiative helps tackle a number of risk factors such as fall prevention, as well as fire safety issues and has meant HFRS has contributed, and will continue to contribute to a much broader citizen safety agenda.

Safe and Well visits completed



6 Evaluation of Service Delivery

Responding to incidents and resource requirements

Responding to any incident can be challenging but the larger and more complex it is the more personnel, fire engines, equipment and officer support is necessary to bring it to a successful conclusion.

To better understand and evaluate the impact that large scale emergency incidents can have on HFRS, we have looked at three significant events from the last three years that tested our ability to mobilise and sustain the required level of response to bring them to a safe and satisfactory resolution.

An incident that occurred on the 12/07/15 shows that although **15** fire engines were on scene at the height of fire service operational activity, **62** fire engines and **11** officers were actually used to facilitate and support the response. HFRS's current model of trying to crew each fire engine with a minimum **4** firefighters means that **60** personnel were required on scene at any one time and a total of **248** personnel were used for the whole response.

Similarly, an incident that occurred on 01/12/16 required **57** fire engines, **228** personnel and **13** officers and an incident that occurred on 08/04/17 was supported by **60** fire engines, **240** personnel and **11** officers.

This analysis demonstrates the 'unseen' resource elements of a fire service emergency response and it is easy to underestimate the amount of resources required to facilitate an effective deployment to incidents of this size. It also highlights the need for HFRS to maintain a level of organisational resilience that matches our operational response arrangements to risk and not just daily demand. Although these types of incidents are not an everyday occurrence, they do highlight the strain the Service must be able to cope with when required to do so.

6 Evaluation of Service Delivery



INCIDENT: GHGH01123
12/07/2015

03:09:01

HFRS Fire Engines Attending	15
Specialist Appliances	4
Reliefs	18
HFRS Fire Engine Standbys	15
OTB* Fire Engine Standbys	10
Officer Movements	11
Total fire engine movements =	62

**OTB - Over the border*



6 Evaluation of Service Delivery



INCIDENT: GHGH025360

1/12/2016

13:04:24

HFRS Fire Engines Attending	10
Specialist Fire Engines	1
Reliefs	18
HFRS Fire Engine Standbys	25
OTB* Fire Engine Standbys	17
Officer Movements	4
Total fire engines movements =	57

**OTB - Over the border*



6 Evaluation of Service Delivery



INCIDENT: GHGH005695

08/04/2017

05:51:24

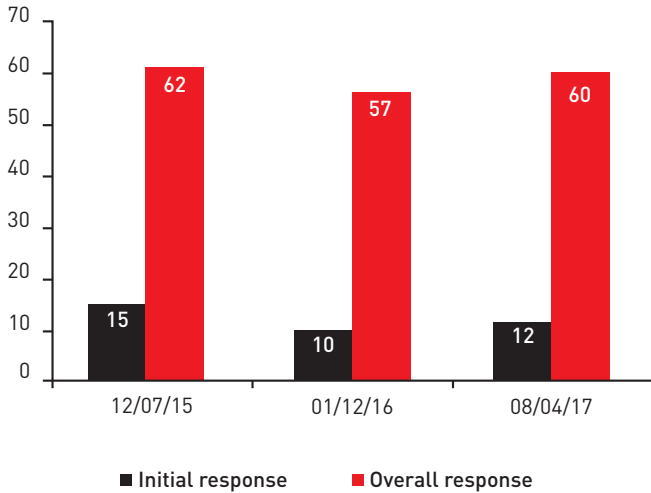
HFRS Fire Engines Attending	12
OTB Fire Engines Attending	3
Specialist Fire Engines	5
Reliefs	17
HFRS Fire Engine Standbys	19
OTB* Fire Engine Standbys	4
Officer Movements	11
Total fire engine movements =	60

**OTB - Over the border*

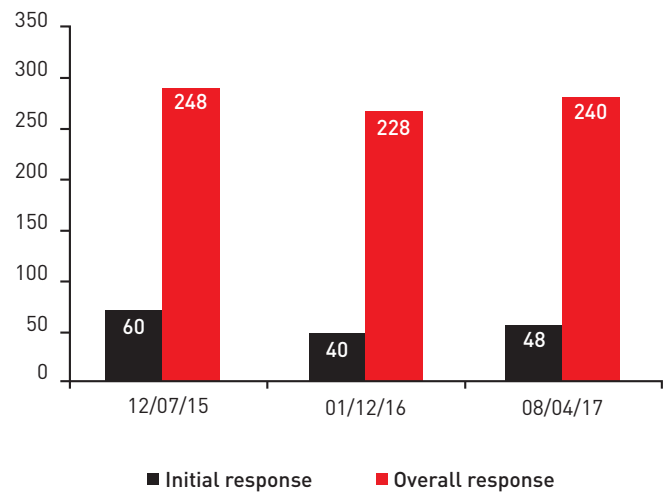


6 Evaluation of Service Delivery

Number of fire engines required to manage a large scale incident



Number of personnel required to manage a large scale incident



Planning for the complexity of operational response and the personnel and fire engines required to maintain adequate fire cover includes:

- Large scale incident requirements
- Simultaneous county wide fire cover
- Provision for rest and recuperation, reliefs and on call availability.



The Added Social Value of a Wholetime Fire Engine



£1,300,000
Approximate Cost
Per Annum



Fire Crews have a contribution to make to **commercial and building safety** through the Risk Based Inspection Programme (RBIP)



Approximate cost to the economy of a death from a Road Traffic Collision
£1,841,315



Fire Crews undertake **Safe and Well** visits which contribute not only to fire prevention but also broader safety issues, such as falls prevention.

An attendance at Accident and Emergency can cost approximately **£220** per visit.

An emergency hospital admission can cost in the region of **£1500**.



Fire crews contribute to a variety of community engagement schemes such as:

- youth engagement initiatives
- water safety campaigns
- working with vulnerable adults



Approximate cost of a single Fire Death
£1,650,000

7 Risk Profile

As part of our planning for the IRMP, we have undertaken a comprehensive review of the risks within Hertfordshire and beyond in order to better understand the challenges ahead and the needs of the communities we serve. Using a combination of data analytics, computer modelling, infrastructure planning, professional judgement and staff engagement, we are well placed to ensure our resources are aligned with the risks identified.

The risk profile in Hertfordshire highlights a complex and multi-faceted set of longer term challenges that require a collaborative response across the public, private and voluntary sectors. They also require regular review and a flexibility of approach so that we can adapt to the changing needs of Hertfordshire's residents.

What Do We Mean By Risk?

HFRS looks at risk in general terms based on the likelihood of an incident occurring and its potential consequences. Our prevention and protection activities are broadly speaking designed to minimise the likelihood of an incident occurring in the first place, while our operational response is primarily predicated on mitigating its consequences. In order to ensure our prevention, protection and response arrangements are best matched to the likelihood of incidents occurring and their consequences, this IRMP proposes an ongoing review of our resource arrangements so that we can better match those resources to a dynamic and diversifying risk and demand profile.



Local and National Risk

HFRS must be able to respond to a wide range of risks and emergency situations at both a local and national level. The National Risk Register sets out the range of emergencies that could have a major impact on all, or significant parts of the UK. It provides HFRS with a national perspective of the risks we could face and is designed to complement the Hertfordshire Risk Register.



The Civil Contingencies Act (2004) defines what is meant by an emergency, and what responsibilities are placed on HFRS, this helps us to plan for risks such as:

- Spate Conditions (extreme weather)
- Pandemics
- Major Incidents
- Acts of Terrorism

At a local level, the Hertfordshire Risk Register examines the likelihood and potential impact of a range of risks and hazards occurring. It is approved and published by Hertfordshire Resilience, our Local Resilience Forum (LRF) incorporating representatives from the emergency services, public, private and voluntary organisations.

Corporate & Workforce Risks

Hertfordshire County Council has a number of corporate, service and operational risks that are continually monitored and reviewed by the HFRS Risk Manager in line with the HCC risk management strategy. These include extreme weather, radicalisation, large scale staff absence, maintenance of IT systems and unplanned events such as wide area flooding, civil disturbance or terrorist activity.

These risks are 'owned' by a member of the Strategic Leadership Group and are reviewed and updated quarterly. HFRS and CPD, as part of the County Council manage corporate and strategic risks through HCC's central team.

Planning Assumptions

It is usual within an IRMP to establish a minimum level of available resources; this is referred to as planning assumptions. Planning assumptions however can be rigid and restrictive, and do not always support the type of changing and diversifying risks that HFRS believe will be relevant to our emergency response arrangements in the future. This IRMP proposes an ongoing and dynamic review of operational response (see Proposal 1) through the use of an annual action plan that includes locations, type and quantity of available resources.

Changing Risk & Improved Efficiency

Some of the proposals within this IRMP will have the effect of redistributing resources to improve performance and allow for a more flexible approach to be taken. However, HFRS is clear that although we operate within a cost envelope, there is no specific saving requirement that needs to be met through this IRMP. Any perceived savings, including any saved positions, will in the most part be redistributed to improve our performance, efficiency and effectiveness across prevention, protection and response.

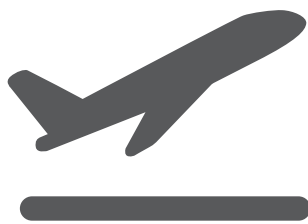
7 Risk Profile

Transport Risk

Since 1950 and the start of mass car ownership, Hertfordshire and its transport network have experienced significant change. There has been the construction of the M25, M1 and A1(M) motorways, numerous highway upgrade and bypass schemes, the building of New Towns and Garden Cities, the growth of Luton and Stansted airports as major international gateways, the decline of the rail network through the Beeching cuts of the early 1960s and the current rail passenger increases of the last decade.

This period of time has seen car ownership in Hertfordshire increase from only one in ten households in 1950, to nearly nine in ten households today. 118,000 Hertfordshire residents work in Greater London, and half (51%) travel by rail/tube (2011 Census). Combined with longer distance commuters travelling through the county to access London, the rail network is at or approaching full capacity at busy times.

The transport network in Hertfordshire has a north-south focus serving London, the Midlands and the North on the A1(M), M1, A10 and the East Coast, Midland and West Coast Mainline railway routes. With the exception of the heavily congested M25 and A414 in the south of the county and the A505, there are very few east-west routes, particularly for those wishing to use public transport, with east-west rail travel often requiring a train trip into central London first. This creates a complex and often congested transport network within Hertfordshire and HFRS is monitoring how this context impacts on our delivery model, particularly the impact on our attendance standards and potential increases in road traffic collisions.



Air Expansion

The volume of passengers travelling to and from Stansted and Luton airports will continue to increase. Luton airport is expected to expand from 12 million passengers per annum (mppa) to 18mppa by the early 2020s. Stansted airport is expected to expand to a capacity of 40-45mppa. Air expansion in the South East will have an impact in Hertfordshire as we would expect to see increases in traffic, business investment and infrastructure.




HS2

The construction of HS2 and its route through the county is perhaps the most pressing risk currently as it involves: the construction of the Chiltern Tunnel and the Colne Valley Viaduct, 6 years of ongoing around-the-clock construction, and building 3 large construction compounds to house 250 employees for up to 12 years.

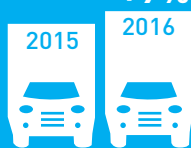
7 Risk Profile

2.3% rise
Traffic levels grew by 2.3% between 2016 and 2017



HGV traffic increased by 9% between 2016 and 2017; however they are still lower than pre-recession levels

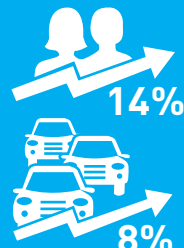
+9%




Between 2001 and 2016 population in Hertfordshire has grown by 14%, whilst traffic has grown by 8% during this period

14%

8%




40% Increase
In the number of registered plugged-in vehicles between 2015 and 2016



Traffic growth to 2031 is predicted to be greatest on trunk roads followed by rural roads. By 2031 traffic is forecast to grow in Hertfordshire by 18%


by 2031

18%




There are 34 Air Quality Management Areas in Hertfordshire, with 19 of these occurring on local roads

34
Air quality management areas



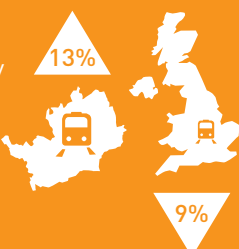
Most of Hertfordshire's rail network suffers with constraints, whether from line capacity or from infrastructure, such as service frequencies or platform length



Rail use in Hertfordshire is significantly higher (13%) than the national average (9%)


13%

9%




Rail use grew in Hertfordshire by 1.5% between 2016 and 2017, despite a drop in rail use nationally


+1.5%



Car ownership has increased in Hertfordshire since the 2011 Census, with the highest levels found in East Herts. The lowest levels of car ownership are in Stevenage and Watford.



>60%
of Hertfordshire residents use the car to travel to work



89%
of all journeys, for all purposes, are less than 20 miles and 26% were less than 3 miles

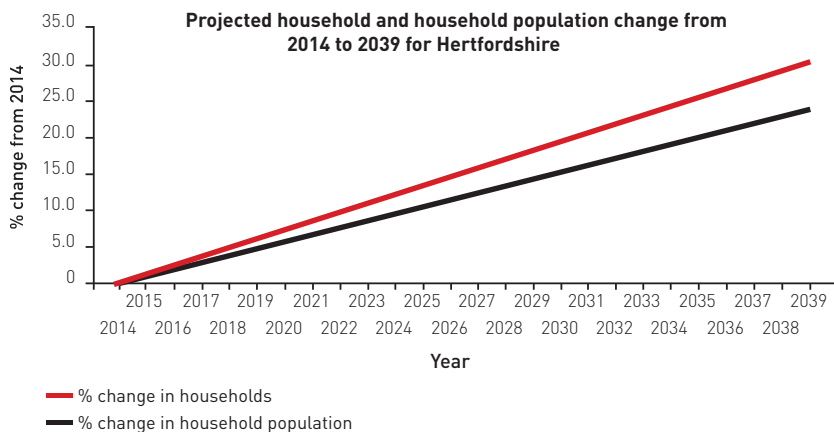
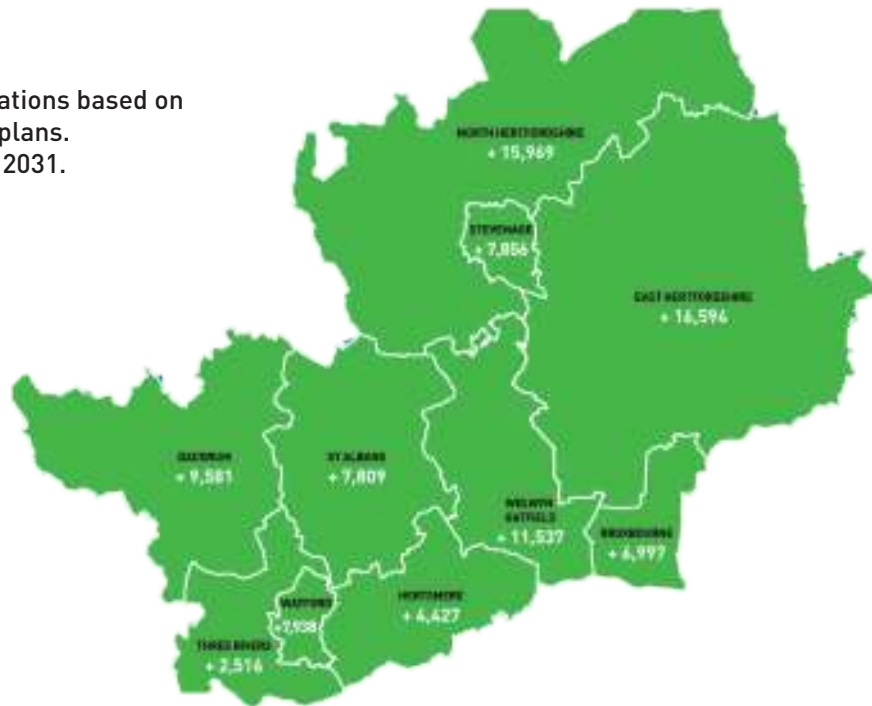
20 m



Housing and population growth

In **2016**, Hertfordshire had a population of **1,174,000** people and **482,000** households. Government demographic projections of population and household growth indicate that Hertfordshire is set to experience substantial growth over the coming decades. By **2037**, the population of Hertfordshire is projected to reach **1,401,000** and there will be **603,000** households. These growth predictions not only put pressure on our infrastructure but means we must be regularly reassessing what these increases mean for our service delivery model.

Anticipated development locations based on adopted and emerging local plans.
Total = 91,244 new homes to 2031.



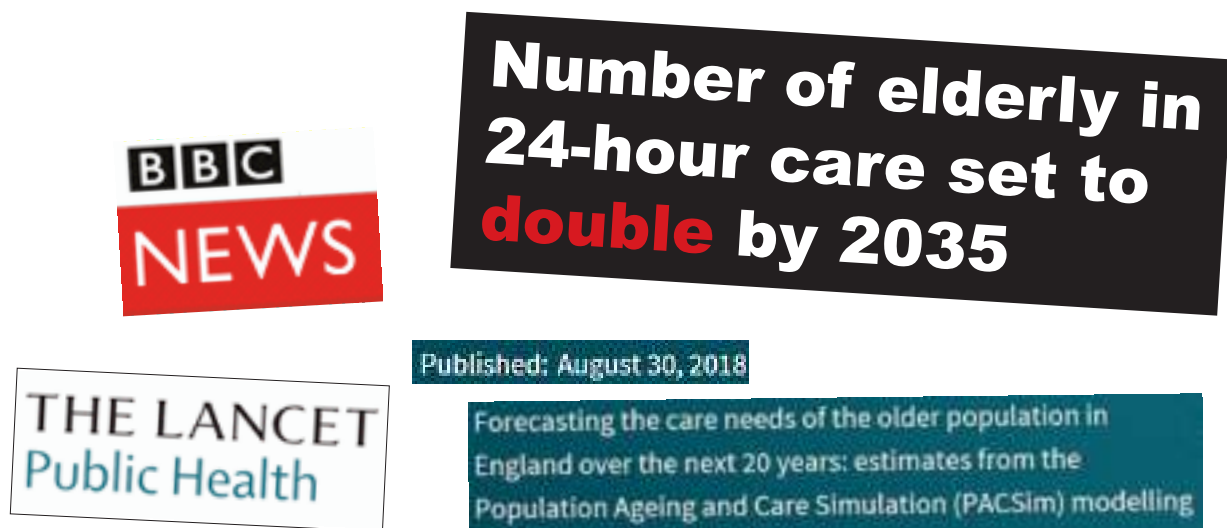
Source: Department for Communities and Local Government, 2014-based subnational household projections.

7 Risk Profile

Vulnerable Adults

Unquestionably one of the greatest challenges we face, like many public sector organisations, is the increasing numbers of elderly and vulnerable residents. We know that those aged **65** or over are more likely to be killed or injured in a fire and increases in this demographic is a key driver for our future planning arrangements across prevention, protection and response.

National Picture



In the next 20 years, the English population aged 65 years or over will see increases in the number of individuals who are independent but also in those with complex care needs. This increase is due to more individuals reaching 85 years or older who have higher levels of dependency, dementia, and comorbidity. Health and social care services must adapt to the complex care needs of an increasing older population.

7 Risk Profile

Hertfordshire

People over 65

2017 = 199,200
2030 = 290,900
49.7% increase

2017 client ratio
= 1:6



People over 85

2017 = 30,100
2030 = 67,700
137.5% increase

2017 client ratio
= 1:2



People with a physical disability

2015 = 71,000
2030 = 79,100
11.4% increase



Older People

An estimated 14,000 people over 65 have dementia



Falls at home

Are the single largest cause of emergency hospital admissions for older people



Carers

There are an estimated **114,000** carers in Hertfordshire



7 Risk Profile

Industrial, Commercial and Economic Risk

There are around 60,000 businesses in Hertfordshire and this looks set to increase. Hertfordshire is uniquely positioned within the UK's Golden Research Triangle – London – Cambridge – Oxford and has been identified as an area for increasing growth and development.



To mitigate the risk to Hertfordshire businesses, HFRS will continue to work with the business led Local Enterprise Partnership (LEP) to facilitate and encourage sustainable private sector growth and job creation in the county. We do this by providing advice regarding business responsibility and carrying out inspections to ensure compliance with legislation.

Climate Change/Breakdown and Environmental Risk

The impact of climate change and the increasingly volatile nature of the environment mean fire and rescue services will need to plan for and be able to respond to an ever more challenging set of incident types. Prolonged and sustained periods of hot weather will see an increasing risk of wild, grassland, heathland and forest fires. It means HFRS will need to ensure it has the capability and resilience to respond to incidents of this type as they can be significant in terms of scale and resource requirement.



There is also an increasing risk of significant flooding events due to a rising number of periods of intense rainfall, particularly during winter months. The greater risk of flooding, together with unpredictable storm and extreme weather events clearly have an impact on the work of fire and rescue services and HFRS is planning accordingly. We will also continue to work with partners such as the Environment Agency (EA) and through the Local Resilience Forum (LRF) in responding to and planning for such events.



The impact climate change/breakdown will have on the environment and society more widely is becoming increasingly clear. As a result we will look at measures that we can take to reduce this impact such as waste and energy use, nutrition, diet, water efficiency, green technologies and opportunities for using green energy in any future redevelopments.

We will also consider the feasibility of carrying out an environmental impact assessment for new policies, procedures and projects.

Heritage Risk

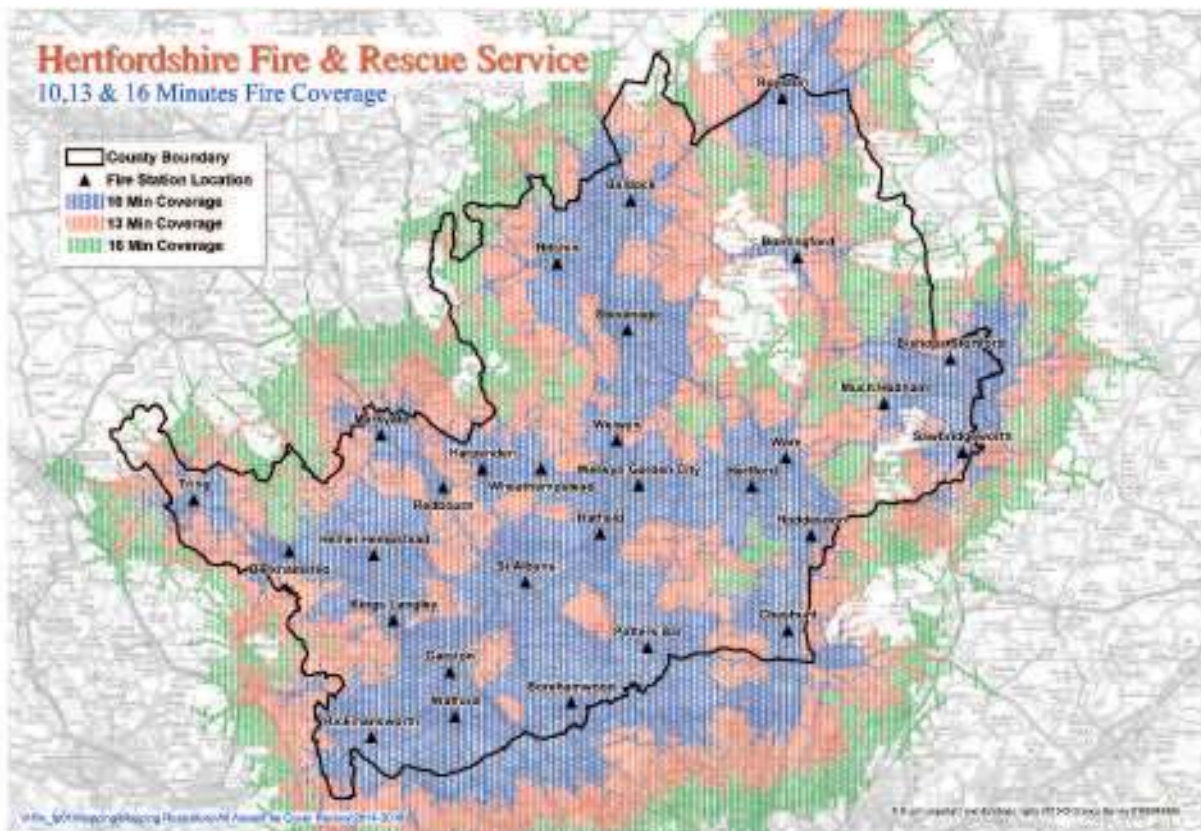
Hertfordshire is host to a number of heritage sites of national interest and although small in number we recognise the unique risk they pose. Most sites have their own salvage and action plans for fire, flood or other significant incidents and HFRS works alongside the site owners and managers to provide an appropriate level of response and protection should an incident occur.



8 Station Locations and Profiles

Our operational response is provided by a mixture of on-call and wholetime firefighters spread across **29 fire stations**. They are supported by a cadre of flexible duty officers (FDOs) and principal officers who provide the necessary incident command structure at the most challenging and complex incidents. Operational response is the most visible and recognisable element of the fire and rescue service and HFRS has a proud tradition of ensuring its operational crews are well trained, well equipped and highly professional when called upon to respond to emergencies. The successful rescue of 33 vulnerable residents from the Newgrange Care Home Fire in 2017 is a vivid reminder of the necessity to ensure this ability to respond is not compromised as the Service continues to evolve.

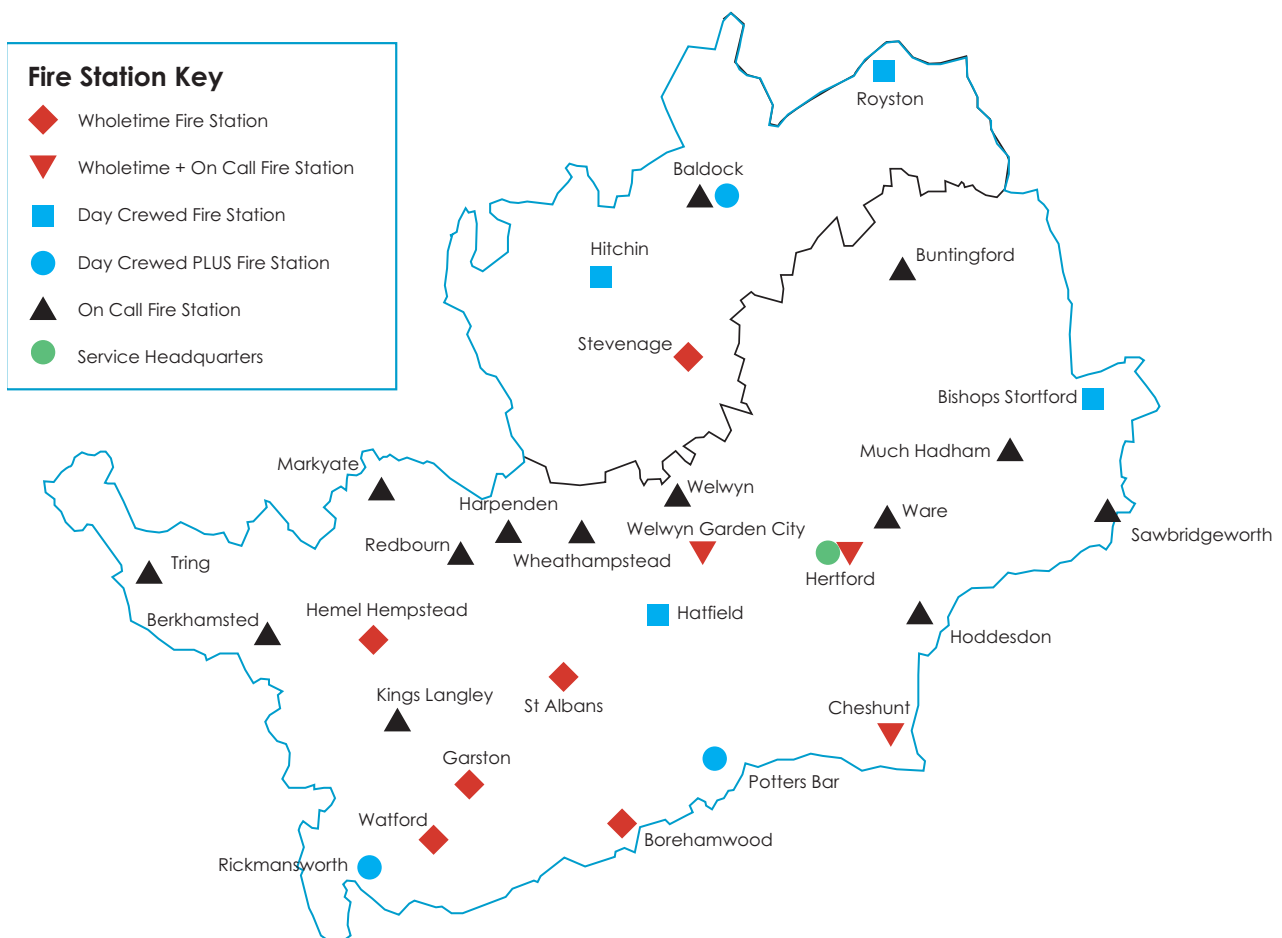
HCC, as the Fire Authority, have confirmed the maintenance of our current attendance standards, which means fires involving life risk such as dwellings and other buildings receive a response of **10** minutes or less on **90%** of occasions for the first fire engine attending, **13** minutes for the second fire engine and **16** minutes for the third appliance from the time the resources were assigned.



8 Station Locations and Profiles

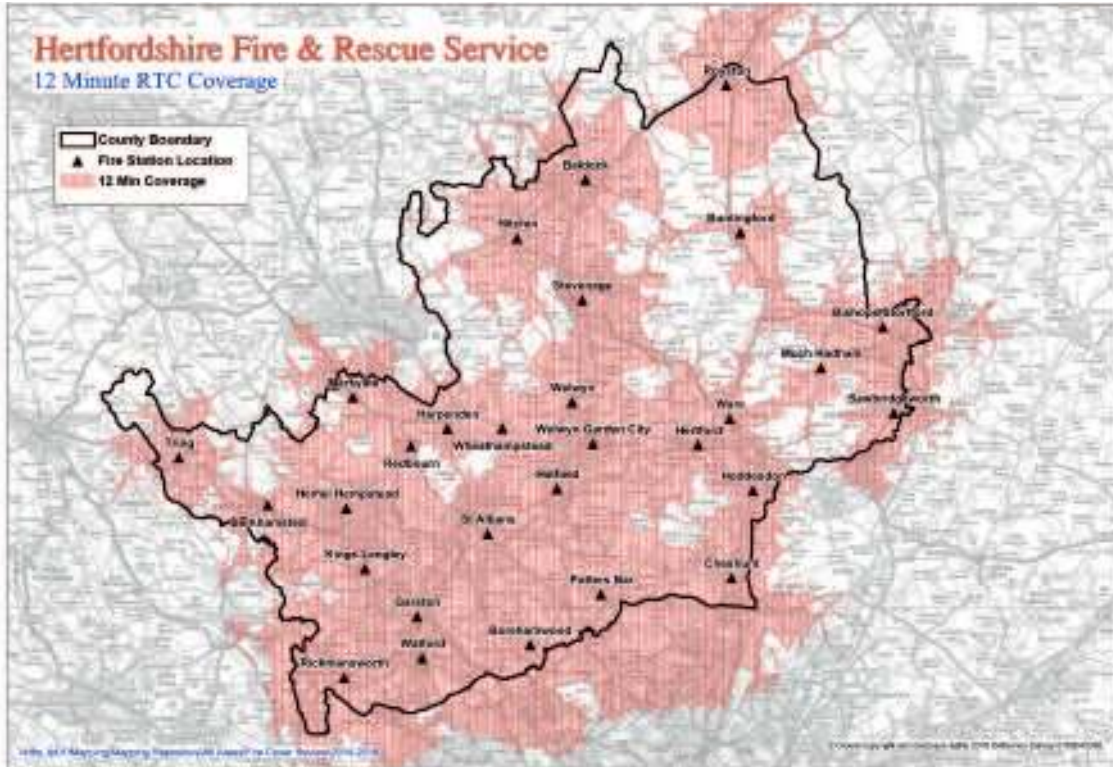
Station Locations

Our response modelling system shows us that the current location of our fire stations enables us to cover the majority of the county within the **10 minute** standard. Although this tells us that the stations are currently in acceptable locations, this does not mean that relocating them would not improve our coverage based on ever-changing risk and growth in population across the county.



In addition to our fire attendance standards, the Fire Authority is still committed to our attendance standard to Road Traffic Collisions (RTCs) at **12 minutes** on **75%** of all occasions for the first fire engine attending. Our modelling system confirms that our fire stations are well located in order to provide the required level of cover. We will also be maintaining our attendance standard to hazardous materials incidents (HAZMATS) at **20 minutes** on all occasions for the first fire engine attending.

8 Station Locations and Profiles



Station profiles

As part of our risk planning, station profiles have been prepared for each station in Hertfordshire. These profiles contain information to help:

- Increase the transparency of high-level decision-making.
- Ensure confidence in the local information used by SLG to take decisions.
- Empower staff and informing actions at a local level to improve operational performance.

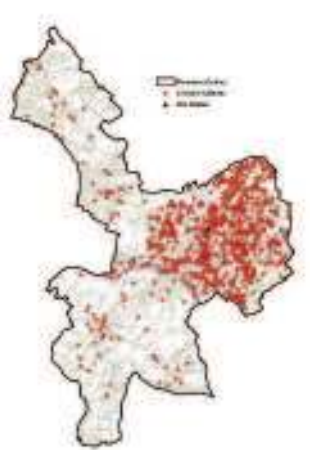
Typically, a station profile will contain information on incidents that have occurred over a three year period. These incidents are then evaluated by type, whether critical or non-critical, and by hour of the day.

Firefighting methods and equipment used are analysed to establish the response requirements at that location.

8 Station Locations and Profiles

Our prevention and protection work also forms a part of the station profile as does ethnicity data and Mosaic data. All of this information helps us build a picture of the risk in any particular station area and this will help guide our response arrangements.

Hemel Hempstead

Hemel Hempstead Administrative Area	Explanations and Definitions															
<p>Hemel Hempstead is a large new town situated to the west of the county in the borough of Dacorum, the town has good transport links and is served by three main arterial routes the M1, A414 and A41 and it is on the West Coast Main Line with frequent rail services passing through the town between London Euston and the Midlands.</p> <p>Because of its geographical location and road network Hemel Hempstead experiences periods of high traffic flow during peak periods. The Heathrow Airport holding area known as the 'Bovingdon Stack' lies just to the west of the town and is used by a significant number of aircraft on a daily basis.</p> <p>The town is host to a modern indoor shopping mall, a leisure complex, the Buncefield Oil Terminal, numerous factory and engineering works and a significant number of companies within the information technology and telecommunications sector.</p> <p>Hemel Hempstead Fire Station currently has two Fire appliances and a Decontamination and Environmental Protection Unit (DEPU); these resources are crewed by personnel working the wholetime duty system.</p> <p>The Station is located in Queensway which is close to the centre of town and is within the 10 minute attendance standard to all primary risks within its turnout area.</p> <p>Dacorum Borough Council has agreed in its core strategy to build more than 11,000 new dwellings in the borough between 2006 and 2031. Significantly, 8,800 of these new dwellings are planned to be built in an area to the west of Hemel Hempstead. It is expected that the first of these future building projects will be underway by 2021.</p> <div style="text-align: center;">  <p>Station Ground (based on the Administration Station Area)</p> </div>	<p>Critical Incident Map</p> <p>The 'heat map' (opposite) provides a visual indication of the total number and location of critical incidents within Hemel Hempstead's administrative area that were attended by HFRS crews between 1st April 2013 to 31st March 2016. It also indicates the location of the Fire Station is situated within the key risk area in relation to the number of incidents attended.</p> <p>The incident types involved are listed in the table below, it should be noted that some of these incidents may overlay one another or on a number of occasions may have been attended by additional resources from other stations, however, this map provides an appreciation of activity given from the incident types detailed in the table below.</p> <p>Critical Incident Types</p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th>Dwelling Fires</th> <th>Other Residential Fires</th> <th>All Non- Residential fires</th> <th>Transport Fires</th> <th>Grassland, Woodland & Crop Fires</th> </tr> </thead> <tbody> <tr> <td>Outdoor Equipment & Machinery Fires</td> <td>Road Traffic Collisions</td> <td>Other Transport Incidents</td> <td>Rescue or Evacuation from Water</td> <td>Other Rescue or Release of Persons</td> </tr> <tr> <td>Hazmat Incidents</td> <td>Suicide Attempts</td> <td>Assisting Other Emergency Services or Agencies</td> <td></td> <td></td> </tr> </tbody> </table> <p>Station Administrative Area</p> <p>The introduction and use of the Automatic Vehicle Location System (AVLS) has over the past few years had a significant impact on HFRS mobilisation strategy and has effectively removed the need for a rigid/fixed station turnout area (station ground), as a result the nearest and/or most appropriate resources are mobilised to every incident HFRS attend regardless of location.</p> <p>Community Safety and Community Resilience Activities remain a key area for the station personnel and are linked to the administrative areas previously referred to as the 'station ground'.</p> <p>Safe and Well Visits in the home, Risk Based Business Inspection visits and other fire safety incentives will all continue play a part in mitigating risk for residents and businesses within the Hemel Hempstead area.</p> <p>Station borders are often determined by Borough, District, Town and Parish Council boundaries and these will remain in place from a collective Community Response, Fire Safety and Resilience perspective however any operational response to incidents occurring in this area will be made from the nearest and most appropriate resource available at the time of call.</p>	Dwelling Fires	Other Residential Fires	All Non- Residential fires	Transport Fires	Grassland, Woodland & Crop Fires	Outdoor Equipment & Machinery Fires	Road Traffic Collisions	Other Transport Incidents	Rescue or Evacuation from Water	Other Rescue or Release of Persons	Hazmat Incidents	Suicide Attempts	Assisting Other Emergency Services or Agencies		
Dwelling Fires	Other Residential Fires	All Non- Residential fires	Transport Fires	Grassland, Woodland & Crop Fires												
Outdoor Equipment & Machinery Fires	Road Traffic Collisions	Other Transport Incidents	Rescue or Evacuation from Water	Other Rescue or Release of Persons												
Hazmat Incidents	Suicide Attempts	Assisting Other Emergency Services or Agencies														

Example station profile

IRMP Proposal 1: To actively seek opportunities to relocate fire resources to the most appropriate locations in order to reflect changes in demography, demand and infrastructure growth.

1 The Opportunity:

Our resources are currently well located to enable us to meet our emergency response attendance standards and to be part of the local communities we serve. However, Hertfordshire is predicted to see significant expansion in terms of both infrastructure growth and population and so HFRS must regularly reassess where it locates its resources and assets.

We will regularly seek opportunities to improve the locations of our resources to reflect changes in risk, population and infrastructure.

9 Moving Forward

Key Principles

In addition to legislation, national drivers and Hertfordshire's risk profile, this IRMP is being shaped by six key principles which we think are crucial to the evolution of our organisation and act as a focus for our strategic priorities and future planning.

- **Invest more in** Training and Information Technology.
- **Invest more in** Firefighter Safety.
- **Review and Reform** On-Call Provision.
- **Commitment** to Increased Collaboration.
- **Focus** on Community Engagement.
- **Ensure** resource is appropriately matched to risk through Prevention, Protection and Response.

10 Our Vision



To make Hertfordshire
the safest county in which
to live, work or visit



Our **Strategic priorities**

Prevention, Protection and Response:

We intend to build on the successes of our existing prevention and protection work in order to help further reduce the number of fires and other types of emergency incidents that we are called upon to attend. We will also continue to provide added social value through initiatives which deliver improved outcomes across health, well-being and crime reduction. When we are required to provide an emergency response it will be timely, professional and appropriate.

Maximise opportunities to collaborate with emergency service organisations, partner agencies and stakeholders:

We will work with partners to relentlessly pursue opportunities to use our combined resources and assets to make Hertfordshire the safest county in which to live, work or visit. This will ensure we are working across organisational boundaries to deliver services which provide genuine value for money and improved outcomes for the citizens of Hertfordshire.

10 Our Vision

Ensure firefighters are equipped, trained and supported to deliver a safer and more effective operational response:

We will continue to prioritise and improve ever more realistic training opportunities to ensure firefighters are prepared to respond to a broadening range of operational incidents. This includes working to ensure HFRS is at the forefront of the latest innovation, technology and research in order to provide an operational response fit for a modern and forward thinking emergency service.

Ensure our Service continues to reform, innovate and evolve to meet the challenges and risks of the 21st century at both a local and national level:

It is indicative of any good organisation that it continues to evolve, aligning the way in which it works to the changing world in which we all live. It is vital that your fire and rescue service keeps pace with an ever changing and evolving risk picture, closely matching resources to the needs of the communities we serve. This includes maximising the opportunities of a digital age, taking a more collaborated approach to our blue light response and investing in transformational change. It also means taking a long term view of the organisation in order to set the foundations for IRMPs to come; thereby ensuring HFRS is an organisation that continues to be fit for purpose for the future.

11 Prevention

The Prevention Department is responsible for the planning, coordination and evaluation of community based activities and is central to our broader engagement role. Working with partners, its primary aim is to reduce deaths, injuries and accidents occurring within the county. This is achieved by delivering interventions based around a number of key themes:

Home Safety

Safe and Well visits now form and will continue to be the foundation of our home safety prevention strategy.



Incorporating both home safety as well as health and wellbeing advice, these visits target the most vulnerable residents in the county and help to identify risks such as fire, social isolation and those who are more likely to suffer a fall. Using data from NHS England and Hertfordshire Adult Care Services, targeted interventions are carried out on those individuals that are deemed most at risk. The Fire Deaths in Hertfordshire report has also provided a crucial evidence base for targeting those

most at risk from fire through the identification of a number of 'critical risk factors'. Mitigating these risk factors will focus our prevention work across a broad range of societal challenges linked to old age, social isolation, drug and alcohol addiction and mental health.



Arson

Deliberately set fires account for over **48%** of all fires that Hertfordshire Fire & Rescue Service attends. This criminal activity detracts front line crews from responding to more serious emergencies whilst also tying up valuable resources. HFRS identifies statistical trends and undertakes a number of proactive measures to manage down the risk of arson. HFRS works with partner agencies to identify arson 'hot-spots' and remove flammable materials before they become involved in fire. This important area of fire prevention work will continue to be an area of focus for the department.

11 Prevention



Youth Engagement

Youth engagement is key to ensuring our young residents develop into model citizens who play an active and purposeful role in supporting both the community and economy. The Prevention Department delivers a number of tailored courses to help support and coach individuals through their childhood and into adulthood.

The Princes Trust Team programme delivers a **12** week course developing life skills and assisting people back into training, education or work. The Prevention

Department also run a number of programmes including fire cadets, work experience and its **Local Intervention Fire Education (LIFE)** course. These courses develop life skills that are transferable and help build confidence and resilience for those young people that may require additional support.

Road Safety

The Community Protection Directorate is a key member of the **Hertfordshire Strategic Road Safety Group**. With one of the busiest road networks within the UK,

Hertfordshire is committed to reducing the number of those killed and seriously injured on its roads. A strategic assessment identified key groups that HFRS and partners engage with to promote safety messages. Younger road users including new drivers remain a focus for the directorate with the multi-agency **'learn to live'** programme aiming to educate all secondary school pupils aged between **16** and **18**. Statistically, motorcyclists are more likely to be injured on Hertfordshire roads and the **Biker Down** project, delivered by HFRS, teaches hazard perception along with safe driving techniques. The Directorate's **Trading Standards** team enforce product safety across a wide range of products. This has direct links to road safety and Trading Standards will advise and educate members of the public on items such as child car seat purchase and fitting.



11 Prevention

Water Safety

With over **400** accidental drownings in the UK each year this figure far exceeds those who may become a victim of fire.

We work with organisations such as

Herts Canoe Lifeguards, RNLI and Swim England to promote the dangers of open water as well as undertaking targeted campaigns such as cold water shock.



Volunteers

With around **100** volunteers, the Directorate's volunteering scheme is seen as a best practice model in the fire sector. Volunteers collectively give on average around **10,000** hours per year to support the Directorate to meet its aims. All volunteers are trained to carry out **Safe and Well** visits as well as undertaking a range of other activities. Our volunteers continue to provide a job club in Hertford, ensuring those seeking employment are given the assistance they require when job hunting. Our **Community Horse Patrols (CHiPS)** sees volunteers on horseback patrolling those areas inaccessible to vehicles and reporting back on issues such as fly tipping, thereby reducing the potential for an arson event to occur.

This IRMP sees a renewed commitment to our community engagement work as we look to continue to use the HFRS brand to improve the lives of some of Hertfordshire's most vulnerable residents.



12 Protection

Our Fire Protection (FP) team, within Joint Protective Services, are responsible for our statutory duties in relation to non - domestic premises which includes delivery and coordination of our Risk Based Inspection Plan (RBIP) and consultations with Planning and Building Control bodies.



Our aim is to make Hertfordshire a safer place by reducing as far as possible the risks and impact of fire on the community without imposing an unnecessary burden. This will be achieved through securing compliance with the relevant legislation to reduce loss of life and injuries, as well as reducing the commercial, economic and social cost of fires and other dangers. Just as importantly, it will also assist in safeguarding our firefighters own safety, heritage properties and our environment.

We firmly believe that the most effective way of preventing death and serious injuries from fires is through sound design and robust fire safety management arrangements being in place throughout the whole 'life cycle' of a building – from design, construction and through to occupation and, eventually, its decommissioning.

- Over the past **5** years there have been a total of **949** fires at commercial premises in Hertfordshire with an estimated economic cost of just over **£80 million.**
- Whilst incidents at commercial premises account for only around **5%** of all fires in Hertfordshire, the Home Office Research, Development and Statistics Directorate have previously estimated that fires at commercial premises make up **40%** of the total economic cost of fire.
- Furthermore, a report published by the Chief Fire Officers Association (CFOA) in 2005, suggested that **60%** of privately owned businesses that suffer a fire never recover and eventually go out of business.

The Service will use its legislative powers to advise, inspect, direct and, where necessary, enforce actions required from those who are responsible for the safety of persons from fire in non-domestic premises. In seeking to drive up levels of compliance, we also aim to take advantage of opportunities for business engagement activities intended to educate and inform. Such activities are less of a burden on businesses and encourage self- compliance leading to the protection of life and property.

The FP team will also work closely with colleagues across the directorate to ensure that;

- Risk critical information is shared and understood by those who need to know,
- Such information is regularly reviewed by competent officers,

12 Protection

- Inspecting Officers work very closely with operational crews to raise awareness and understanding of building design, fixed installations and fire engineered solutions.

Hertfordshire is likely to see a significant growth in housing and development over the next decade with **100,000** new homes and a similar increase in employment predicted in the county. The FP team have an important role to play in supporting growth, whilst at the same time, providing assurance that high standards of fire safety are incorporated in any future developments.

High Rise Residential Buildings

Following the Grenfell fire in June 2017, the FP team have continued to work with local authorities, housing associations and private landlords to ensure the highest levels of safety for residents.

The Government's response to The Independent Review of Building Regulations and Fire Safety, due to be published in the autumn of 2018, is likely to result in a change of responsibilities for the FP team, with the potential for a much greater role in all stages of a building's life. We will continue to promote the installation and, where appropriate, retro-active fitting of sprinklers or water suppression technology to substantially drive down the impact of fire on a premises.



12 Protection



Care Homes

As a result of the fire at the Newgrange Care Home, which tragically resulted in the loss of life of two elderly residents, and the results of inspections carried out at other care homes in the county the FP team have stepped up efforts to ensure compliance.

We will continue to work closely with the Hertfordshire Care Providers Association and care providers to support their fire safety arrangements, promoting the highest standards and ensuring that lessons learnt from previous incidents in care homes are incorporated into their own fire safety management arrangements.

12 Protection

Other Activities



The FP team will continue to play a leading role in the Better Business for All programme working with business groups and other regulatory bodies in the county to share best practice and

deliver joint projects to support economic growth in Hertfordshire whilst continuing to protect the public.

The team will also look to develop its Primary Authority offer and work with our existing Primary Authority partners to provide a high standard of regulatory support and advice which enables them to make informed business decisions.

Responding promptly and proportionally to Alleged Fire Risks (AFR) will continue to be a priority for the department. When the Service is informed of a situation which represents a risk of death or serious injury in event of a fire, we will respond appropriately to protect the public.

We will also look to work with businesses and business groups in the county to reduce unwanted fire signals from automated fire alarms and reduce the risk of disruption to the Service and delayed attendance to genuine calls.

The team have statutory responsibilities and a licensing role in relation to Petroleum storage. We will look to adapt our approach going forward to take greater account of risk and previous compliance levels to inform our approach.

We will also continue to work closely with our Trading Standards colleagues to raise awareness of electrical product safety; sharing intelligence both locally and at a national level to reduce the harm such items can cause in both domestic and non-domestic settings.

12 Protection

IRMP Proposal 2: We will continue to support and invest in our wider preventative work, both in terms of community engagement and our role in helping to protect the built environment. We will ensure that the teams engaged in delivering this work are suitably resourced and skilled to meet the demands which may arise from future changes in legislation.

2 The Opportunity:

HFRS, working alongside our colleagues in HCC, is a trusted and respected organisation which allows us opportunities to engage in activities beyond our core statutory functions. This means we can take a wider citizen safety focus than just fire and accident prevention as we work to help keep people safe.

By taking a more holistic approach to the safety of Hertfordshire's citizens and businesses, we can continue to make a significant contribution towards creating an environment in which people want to live and businesses want to invest. It also assists us to make firefighters safer by helping to reduce risk across the built environment.

We will commit to the continuance of our broad approach to community and business safety activity.

13 Response

Our operational response is the most recognisable part of the organisation and is where we fulfil our role as one of the three primary blue light emergency services. HFRS has a range of assets it can deploy to help resolve emergency incidents. These include fire engines, aerial ladder platforms, specialist rescue vehicles and a drone capability.



However, we know the operational environment is changing and diversifying. The fire and rescue service is called upon to respond to a widening range of incident types and HFRS must be able to adapt to this changing landscape. Over recent years, the need to respond to acts of terrorism, extreme weather and threats to national infrastructure has been at the forefront of our planning assumptions and this will be a continuing theme over the years to come. As a Service we have resources able to deploy to these varied and challenging threats both within and beyond the borders of Hertfordshire. These range from a High Volume Pump (HVP), Enhanced Logistical Support (ELS) vehicle, water rescue capability and teams of specially trained firefighters able to respond to terrorism related incidents.



13 Response

Planning for major incidents and serious threats to both local and national infrastructure remains a key priority for HFRS. The Civil Contingencies Act (2004) defines an emergency as:

“An event or situation which threatens serious damage to human welfare in a place in the UK, the environment of a place in the UK, or war, or terrorism, which threatens serious damage to the security of the UK.”

HFRS has and will continue to adopt these terms as the definition of a major incident and will ensure our future response planning enables the Service to respond to this scale of incident when required to do so. This includes being a signatory to the National Mutual Aid Protocol, which establishes the terms under which an authority may expect to request assistance from or provide assistance to another authority in the event of a serious national incident. In addition, sections **13** and **16** of the Fire Services Act (2004), places a legal requirement for neighbouring Fire Authorities to enter into formal reinforcement arrangements. HFRS has formal mutual cross border arrangements in place with all **5** of its bordering authorities including London Fire Brigade and is committed to ensuring geographical boundaries are not an impediment to the most appropriate level of operational response.

In terms of our day to day work, we are determined to evolve our operational methodology in order to reflect the changing nature of our demand. In order to do this we have undertaken two significant research projects designed to ensure HFRS continues to provide an emergency service relevant to the needs of Hertfordshire’s communities. The **SMART Firefighting** project and the **On-Call Review** have over the last **16** months been focused on establishing an evidence base to help us understand how we can get better at utilising the latest innovations and technology, and how we can fundamentally reform our on call provision.



SMART Firefighting

The SMART Firefighting project has produced a series of recommendations on how we can continue to ensure our fire crews are as safe as possible while also improving the effectiveness of our operational response. This has involved looking at the latest innovations, technology and research in order to build the case for change based on five pillars:



- SAFE:** utilising technology and research to mitigate risk
- MEASURED:** intelligence led: aligning need with resource
- ASSERTIVE:** using dynamic techniques to reduce loss
- RESPONSE:** early intervention based on required capability
- TYPE:** reacting to a changing operational environment

Since the project began, HFRS has adopted the offensive use of positive pressure ventilation (PPV) as a technique to help remove flammable gases from a compartment involved in fire; researched the latest water misting systems; purchased the Delta Fog Spike (an attachment added to high pressure hose which is designed to create fine water mist) and trialled the use of innovative equipment such as a smart phone which can also operate as a thermal imaging camera.

The project has now made recommendations for HFRS to introduce a capability based approach, with a mixed fleet of vehicles enabling us to respond in a more appropriate and cost effective way. A capability based approach will see the introduction of three levels of response: rapid, intermediate and full. A rapid response capability is designed to make an intervention at the earliest stages of an incident and is equipped for that purpose. An intermediate capability offers a more advanced level of response while also maintaining the flexibility and adaptability of a smaller vehicle. The full response is designed to cope with the most serious fire and rescue related incidents and will continue to be the mainstay of our operational fleet. This approach moves HFRS away from simply relying on one type of fire and rescue vehicle (full response) as a 'catch all' for all incidents and means we can think differently about how we view our resources.

Capability is based on a combination of the vehicle, the competency of the crew and the equipment it carries which allows us more scope to deploy assets in a more sophisticated way, based on the specific needs of an incident.

The SMART Firefighting project has identified that up to 80% of our calls could be dealt with using a smaller and more manoeuvrable vehicle, crewed with less firefighters. The adaptability offered to our on call firefighters in particular through the use of a mixed

13 Response

capability model will create more flexible mobilising options and therefore improve availability and emergency response times. This IRMP therefore proposes trialling a mixed capability approach through the use of alternative vehicles, based at selected wholetime and on call stations in order to provide real time evidence of the benefits it could yield in terms of the efficiency and effectiveness of our operational response.

IRMP Proposal 3: Based on extensive research already undertaken, we will trial the use of alternative vehicles with different capabilities to traditional fire appliances. This would create a mixed fleet of vehicles able to be deployed according to risk, demand and call type.

3.1. The Opportunity:

Different vehicles with different capabilities offer HFRS flexibility in how we deploy our resources. We believe that having a rapid response vehicle will improve our attendance times, better match resource to risk and improve the resilience and availability of our traditional fire engines because they will not be tied up at incidents that do not merit that level of response. We estimate that up to 80% of our calls could be resolved using a rapid response type vehicle.

Having a mixture of capabilities on our larger fire stations does not prevent the same numbers of firefighters attending incidents that demand a higher level of response. It just means they will be responding in different vehicles. It will also help facilitate additional community safety activity as we will be able to deploy our resources in a more flexible way.

As part of a trial, we will use a rapid response vehicle to be crewed with 3 firefighters at Watford Fire Station. We will also look to use our resources in a more flexible way in order to support additional community safety activity. If the trial is successful we will then consider using a similar model at Stevenage, Hemel Hempstead and St Albans Fire Stations.

13 Response

3.2 The Opportunity:

The SMART Firefighting project has identified the benefits of a mixed capability response model and in particular the flexibility an intermediate capability provides for our on call firefighters. This means providing a smaller and more versatile vehicle which will provide a similar emergency response capability to a traditional fire engine but designed and equipped for operations with fewer firefighters. Like many fire and rescue services, HFRS experiences challenges with day time cover in our more rural locations but given the risk profile in these areas, a more flexible approach which allows a variety of crewing options will help facilitate a more appropriate response. Berkhamsted has been chosen as the trial location because it is a reasonably busy on call station and is well supported by both Tring and Hemel Hempstead Fire Stations. This means there is sufficient resilience in the local area to facilitate a trial of this nature.

As part of a trial, we will replace the fire engine at Berkhamsted Fire Station with an intermediate response vehicle to be crewed with a minimum of 3 firefighters. If the trial is successful, we will then consider expansion to other on call stations.

IRMP Proposal 4: To reduce crewing on standard Type B fire fire engines to 4 firefighters. Spare personnel will be deployed according to the needs of the Service; including to on call stations.

4 The Opportunity:

With better and more efficient equipment and vehicles, crewing our traditional fire engines - Type Bs - with 4 firefighters is both appropriate and cost effective. Many fire and rescue services across the country have accepted this standard and, on a daily basis, the vast majority of our fire engines are already crewed with a maximum of 4 firefighters. By officially adopting this policy we can take a holistic view of the Service and deploy spare capacity across the organisation, including to on call stations. This will then provide a better and more even spread of firefighters across the entire county which will significantly improve our day time fire cover in more rural areas.

We will reduce crewing to a maximum of 4 firefighters on our standard Type B fire engines. Spare personnel will be deployed according to the needs of the Service; including to on call stations.

13 Response

On-Call Review

Running parallel with the SMART Firefighting project is the On-Call Review, which has looked at the on call system in its totality in order to reform current arrangements. This has involved looking at recruitment, retention, provision of fire cover and imparting flexibility into a crewing model that has remained largely unchanged for 50 years. Like many services nationally, HFRS has struggled to maintain a satisfactory level of fire cover from its on call stations; especially during the day. Hertfordshire, as a commuter county bordering London is particularly affected. As a Service, we have recognised that current arrangements are no longer sustainable and the need for reform is a clear priority for our future planning.

As the review has progressed, incremental changes have already been made. A change of name from retained to on call now better reflects the role and is easier for everyone to comprehend what being an on call firefighter is all about. The review has also introduced a system of flexible mobilising, which is a more sophisticated way of utilising available on call firefighters by pairing stations together to provide sufficient crew to staff fire appliances.

This IRMP commits HFRS to improving and developing our on call provision to ensure it is both relevant to the demands placed upon it and better reflects the way on call firefighters operate in Hertfordshire today. Taking a holistic approach and utilising the expertise of on call firefighters themselves, the review has made a number of recommendations regarding contracts and roles; increased use of technology; flexible mobilisation; employer supported firefighting; better training and development; streamlining of on call recruitment and rationalising management structures. These recommendations will now be tested in a real time environment and the research will inform how on call provision can be improved in order to provide the flexibility required of a 21st century emergency service.



IRMP Proposal 5 : To trial the recommendations contained in the On-Call Review including employer supported firefighting and the introduction of more flexible contracts.

5 The Opportunity:

The On Call Review has looked at the on call system in its totality and made a number of recommendations on how it can be improved and better aligns with the way people live their lives in Hertfordshire today. We will work with local employers, including our own organisation, Hertfordshire County Council, to encourage them to release suitable members of their workforce to become on call firefighters. Smart or remote working means many employees can work from any given location, including on call stations, if they have appropriate IT support. We will support and encourage both employers and staff to see the role of an on call firefighter as being both compatible with their daily work routine but also as a means of learning vital new skills.

We will also trial new contracts for our on call firefighters which will allow for a more flexible approach to be taken during periods where we struggle for availability. This flexibility in approach will help modernise a system designed in the 1950s and be more aligned with the needs of the Service today.

We will commit to trialling the proposals contained in the On Call Review with a particular emphasis on employer supported firefighting and more flexible contracts for on call firefighters.

14 Emergency Services Collaboration



Working in partnership and collaboration is already well established in Hertfordshire but the signing of the Memorandum of Understanding (MoU) between the Police and Crime Commissioner for Hertfordshire and Hertfordshire County Council means collaborative working can develop further still.



The MoU sets out a number of principles designed to enhance collaboration through a joint programme of work and a joint recognition of the benefits of collaboration between the emergency services to improve efficiency, effectiveness and public safety. This also includes a commitment to work together on the statutory duty to collaborate as enshrined in the Policing and Crime Act (2017).

Specific proposals include exploring the following options:

- Co-location of the Police and Fire and Rescue senior leadership teams.
- The development of new Community Safety Hubs with shared facilities.
- A joint control room.
- A joint training base at Longfield.
- Shared drone capacity with fire and rescue as the lead provider, with investment from police.
- A protocol on joint response to missing persons.
- A commitment to harmonise volunteering schemes and integrate where practical.
- The development of response protocols in areas of joint responsibility.
- To explore the possibility of a joint venture to manage public sector estates and property.

14 Emergency Services Collaboration

To help realise this ambition, a Hertfordshire Emergency Services Collaboration Board will be established which will act as a strategic driver for change and improvement. HFRS will play a full and active role in delivering the agreed outcomes of the Board and commits to driving emergency service collaboration further and faster to ensure our combined resources are used to the benefit of the citizens of Hertfordshire.



15 People

HFRS understands that its greatest asset is its workforce. In order to invest in that workforce more and ensure it better reflects the communities it serves, we have launched a People Strategy, in line with the wider HCC People Strategy to help drive transformational change. This IRMP will begin a period of sustained service redesign and our workforce is fundamental to that evolution.

People Strategy

Aim:

We aim to be a forward thinking and inclusive employer, providing high quality cost efficient services for the people of Hertfordshire.

Objectives:

To fully understand current position and identify strengths, weakness and areas for change

- To identify and deliver change and to also ensure the service is focused on the right strategic priorities.
- To provide an agile service that can quickly and easily flex to address emerging people issues as future pressures arise from political and front line service decisions about what needs to change.
- Clear and robust system processes to support the strategic, tactical and operational functions of the Service
- To continue to embed a cost effective self-service culture for routine people related processes for both employees and managers.

- Improve the shape of the workforce, to include under-represented groups, both at entry level, management and Senior Management level.

People Strategy Priorities

- Delivering our Services
- Shaping the Workforce
- Outstanding Leadership
- Workforce Development
- Workforce Engagement
- Positive workforce, culture and inclusion

Service Workforce priorities

- Culture change
- Improve workforce profile
- Flexible working

Opportunities and Culture Change

- Develop a set of cultural guidelines principles
- Review recruitment, progression and ways of working
- Encourage effective decision making and engagement
- Diverse career pathways
- Equality Diversity and Inclusion
- Training and Development

15 People

- Provide diverse career pathways, develop talent and effective use of the Apprenticeship levy
- Equality, Diversity and Inclusion
- Emphasise the need for life-long learning and support self-development
- Embed and maintain a robust health, safety and risk management culture
- Provide effective Health & Wellbeing support
- Support early intervention work in the areas of Health and Social Care
- Extend the use of support roles to deliver our Fire Protection and Community Safety activities

Success Measures and Outcomes

- Workforce profile, workforce reform
- Transformation and organisational development
- Recruitment and Retention
- Active engagement and feedback through the staff survey
- Collaboration with partners which enhances the service



IRMP Proposal 6: To invest more in our training provision to ensure that we provide our workforce with evermore realistic and innovative opportunities to support maintenance of competence and skills development.

6 The Opportunity:

Both locally and nationally, the fire and rescue service has an ever more broadening role and this needs to be reflected in the quality of the training we are able to provide. The Service has also been extremely successful in its prevention activities resulting in a positive reduction in emergencies. However, this means the experience previously gained by staff through exposure to emergencies must now be replaced with higher quality and more frequent training.

In order to support this investment in our workforce, we understand the need to insure our training facilities provide the best possible opportunities for our staff to develop their skills and competences. Not only will this assist with the safety of our firefighters, but it reflects the more technical demands now being placed on the Service.

We commit to invest more in our training provision to ensure that staff are suitably prepared to face any emergency to which they may be called.

IRMP Proposal 7: To trial alternative shift systems for station based personnel with a view to finding an approach which accommodates the needs of both the Service and the workforce. We will also explore different options for the provision of flexible duty officer cover and undertake a comprehensive review of the structure of HFRS to ensure form follows function.

7.1 The Opportunity:

The majority of our wholetime fire stations are staffed using a 4 on 4 off shift pattern. This means that a firefighter will work two 9 hour days followed by two 15 hour nights and then have 4 days off. This particular system has worked well for HFRS and remained largely unchanged for 30 years, however it provides

limited flexibility for either employees or the service. In order to make HFRS a more attractive career choice, we believe a more flexible approach should be considered. This could assist, for example those who have caring commitments and might better suit our workforce who would have more control over their availability to work.

A more flexible system would allow us to improve our productivity by ensuring our resources are much more closely aligned with our demand and we are maximising the opportunities during the day for training and community safety activities.

We will trial an alternative shift system at wholetime fire station for one year.

7.2 The Opportunity:

HFRS currently employs a core of flexible duty officers who provide both managerial support to the organisation and an operational response to more significant and challenging incidents. Working a flexible duty system they provide 24/7 operational cover across the county. We will explore what is now required for the role of a flexible duty officer and consider alternative options which will provide both the appropriate level of operational cover and a duty system that better supports the needs of the organisation and the officers themselves. Our FDOs play a key role in the day to day management of the Service and we need to ensure the role remains attractive to our firefighters and junior officers as they consider their options for promotion.

We will explore different options for the provision of flexible duty officer cover.

7.3 The Opportunity:

To carry out a comprehensive review of both the Community Protection Directorate (CPD) and HFRS in order to ensure our structure and lines of accountability are clear, appropriate and support organisational governance.

We will undertake a comprehensive review of the structure of the CPD and HFRS to ensure form follows function.

16 Hertfordshire 2050

This IRMP sets the foundation for our longer term planning as the nature of the risks we face and the challenges and opportunities of the 21st century require an approach beyond the lifecycle of this plan. There are ambitious plans for Hertfordshire which include more than 30 major locations for growth across the county ranging in size from 500 to 10,000 new homes on top of many smaller sites and infill locations. This ambition, coupled with the predicted demographic and environmental challenges means thinking short to medium term is not sufficient if we are to remain relevant to the needs of the communities we serve. Yet it is perhaps the impact of evermore sophisticated and pervasive technology which will define the 21st century as the digital age with a profound and lasting impact on the way we live our lives and organise our businesses and public services. Acknowledging and planning for a digitalised future will help drive our innovation and ensure the Service is aligned with the environment within which it operates.

Autonomous Vehicles

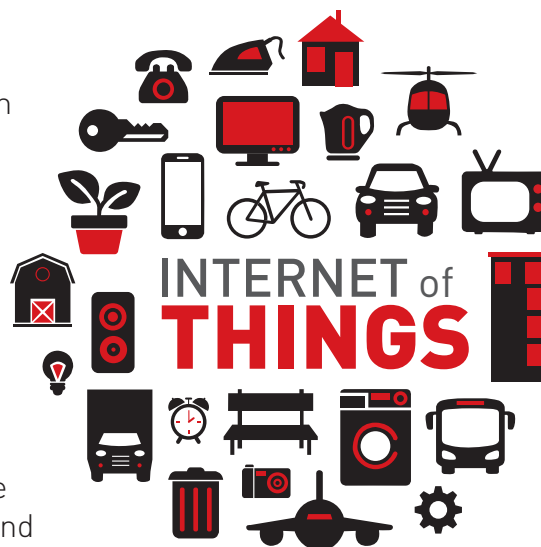


One area gaining increasing traction is the move towards autonomous vehicles. The UK is becoming the global centre for developing this technology due to the expertise already embedded in the automotive industry. The complicated nature of our road network means if an autonomous vehicle can navigate the UK road system, it would easily be able to navigate a grid like road network such as in the USA or Australia. The original thinking was that autonomous vehicles would develop incrementally but it is

now predicted to be more rapid. In ten years' time, we could go from no automation to complete automation with not much incremental change to vehicles. In terms of our service delivery, it is estimated that autonomous vehicles will eliminate **90%** of RTCs. This has profound implications for our service delivery model as RTCs account for the majority of our rescue work. Yet the automation of vehicles could also mean higher speed limits and increased roadway capacity due to decreased need for safety gaps so an RTC would have a much bigger impact. HFRS will be paying close attention to the development of this technology and will ensure our operational protocols adapt accordingly.

Internet of Things

The Internet of Things (IoT) is the network of physical devices, vehicles, home appliances and buildings which are embedded with electronics, software and sensors to enable connectivity. The connectivity between these objects then facilitates the exchange of data. In essence the IoT is concerned with extending connectivity beyond standard devices such as laptops, smartphones and tablets to physical infrastructure such as buildings and street furniture. Quite simply, the connectivity offered by IoT enables hitherto non-internet-enabled physical devices to be connected and remotely controlled. This presents huge opportunities for industry, transportation, healthcare and home automation which can all connect to make us safer. Fire and rescue services must ensure they are able to take advantage of this rapidly evolving technology in order to seize the opportunities it presents in helping to keep people safe and well in both their homes and in towns and cities.



Smart City

Linked very closely to the IoT is the concept of a smart city. Essentially it's an urban area that uses electronic data collection sensors to supply information which is used to manage assets and resources efficiently. Data is collected from a huge range of sources such as citizens, devices and assets that is then processed and analysed to monitor and manage areas such as transport infrastructure, industrial processes, schools, libraries and hospitals.

In terms of relevance for fire and rescue services, this technology could mean that when we attend a building fire, the building will be connecting to our fire engines and would be able to provide real time data such as information about the building structure, who is inside and where they are located. One of the big challenges of the future will be how all this data that will be generated by IoT and smart cities can be handled and processed. Big data offers huge opportunities but also significant challenges as its use and application becomes embedded in our everyday lives.

16 Hertfordshire 2050



Artificial intelligence and Virtual Reality

Artificial intelligence (AI) in its purest form is simply the intelligent capability of machines or 'agents.' One key area of development for AI is its ability to process huge data sets and its use of algorithms. Applications can include being able to predict pandemic disease outbreaks and much earlier cancer diagnosis. In terms of the applicability for fire and rescue, the use of data sets and algorithms can help predict the likelihood of a fire or RTC occurring and deploying our resources pre-emptively. The opportunities presented through the use of AI and algorithms are endless and we must be cognisant of this technology as it continues to evolve.

The use of virtual reality in the fire and rescue service is also now an area gaining significant interest. Its use in terms of training and development in particular has seen a number of fire and rescue services invest in virtual reality hardware and software for remote training and specialist applications such as fire investigation. Although not a replacement for real time experience and exposure, virtual reality offers ever more realistic training opportunities without the need to attend a physical location such as a bespoke training and development center. This is an area HFRS has started to explore, particularly around its use for citizen safety in areas such as home safety and road traffic collision prevention. As the technology develops, HFRS will be looking to see how it can be incorporated into our training and prevention strategies.



17 Proposals for Change

Infrastructure

With nearly 100,000 new homes and new jobs planned for Hertfordshire over the next 10-15 years, HFRS will need to adapt its prevention, protection and response arrangements to reflect a changing and diversifying risk profile. This may lead to more demand for our services in locations where we currently do not have suitable levels of resource. It may also mean we will need to deliver our services in a different way.

IRMP Proposal 1:

To actively seek opportunities to relocate fire resources to the most appropriate locations in order to reflect changes in demography, demand and infrastructure growth.

Prevention and Protection

The benefits of our investment in prevention and protection activities in reducing the number of fires, accidents, deaths and injuries is clear. There is a risk that a lack of investment in these critical functions will mean that HFRS does not meet its responsibilities in relation to new regulatory burdens that may arise in response to the Hackett Review, or from the wider role HFRS plays in helping to improve the lives of some of Hertfordshire's most vulnerable residents.

IRMP Proposal 2:

We will continue to support and invest in our wider preventative work, both in terms of community engagement and our role in helping to protect the built environment. We will ensure that the

teams engaged in delivering this work are suitably resourced and skilled to meet the demands which may arise from future changes in legislation.

Emergency Response

Research carried out for the SMART Firefighting Report indicates that a significant proportion of our calls could be dealt with using smaller and more manoeuvrable vehicles. This, alongside the changing nature of the operational environment means that there is a risk that HFRS will not be providing the most effective and efficient level of response if it does not adapt its response capability to meet future demand.

However, it is vital for both workforce and public confidence that the creation of a mixed capability fleet is done in a systematic and controlled manner that clearly defines the objectives. As part of the proposed trial of new vehicles, we will ensure a methodology providing appropriate measurement and review processes are in place.

IRMP Proposal 3:

Based on extensive research already undertaken, we will trial the use of alternative vehicles with different capabilities to traditional fire engines. This would create a mixed fleet of vehicles able to be deployed according to risk, demand and call type.

17 Proposals for Change

HFRS's current response arrangements means half of the operational fleet is crewed using on call personnel. This can present challenges in maintaining availability and crewing levels; particularly during the day. This creates a clear risk for HFRS in terms of fire cover and so the service is seeking to improve the availability of on call appliances and to develop a workforce that is flexible, agile and fully supported. We can do this by redistributing personnel on each wholtime appliance that has more then 4 firefighters to locations such as on call stations where crewing shortfalls are identified.

It is important however to ensure that this is done within safe systems of work and that firefighter and public safety are not compromised. To do this we will review risk assessments, operational procedures and predetermined attendances accordingly. We will also carry out a training needs analysis to ensure all personnel are suitably prepared.

In addition, available personnel could also be used to deliver wider preventative services or in support of operational training programmes.

IRMP Proposal 4:

To reduce crewing on Type B fire engines to 4 firefighters. Spare personnel will be deployed according to the needs of the Service; including to on call stations.

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To ensure that HFRS is able to maximise the efficiency and effectiveness of its on call system and to minimise the risk relating to recruitment and retention of on call firefighters, HFRS have carried out a comprehensive On Call Review. The

review makes a number of recommendations for improving this fundamental component of our operational response so that it benefits the organisation, and better matches the way on call firefighters operate in the 21st century.

IRMP Proposal 5:

To trial the recommendations contained in the On Call Review including employer supported firefighting and the introduction of more flexible contracts.

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Training

HFRS is aware that the number and type of operational incidents being attended by our less experienced firefighters and junior officers can be a barrier to developing the critical competencies and skills they require in order to operate safely. Lack of investment in this crucial area may lead to a skills and competency gap. This is particularly pertinent to our most dangerous call types such as compartment firefighting. The need therefore to mitigate reducing levels of experience through improved training and maintenance of competency programmes is clear.

IRMP Proposal 6:

To invest more in our training provision to ensure that we provide our workforce with evermore realistic and innovative opportunities to support maintenance of competence and skills development.

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17 Proposals for Change

Crewing and Staffing Arrangements

There is no doubt that the world of work is changing - smart, flexible and agile ways of working need to become the norm. We will therefore trial alternative shift systems for station based personnel and for those working on the Flexible Duty Officer system.

IRMP Proposal 7:

To trial alternative shift systems for station based personnel with a view to finding an approach which accommodates the needs of both the Service and the workforce. We will also explore different options for the provision of flexible duty officer cover and undertake a comprehensive review of the structure of HFRS to ensure form follows function.

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18 How We Will Deliver

This IRMP proposes a number of trial and research projects which will be evaluated over the next 12 to 18 months. The outcomes from this work will then, subject to reassessment of the risks in Hertfordshire, form the basis for implementing the proposals based on real time evidence.

We will use our strategic aims of Plan and Respond to Emergencies, Prevent and Protect and Be an Excellent Organisation to focus our organisational plans and realise our vision and strategic priorities. This will include a review of the IRMP through the use of an annual action plan, which will confirm progress on our proposals, provide a reassessment of the risks and ensure the organisation is able to adapt to a rapidly changing operational landscape.

Aims		Objectives
Plan & Respond to Emergencies	Our aim is to plan for local, regional and national emergencies and to respond quickly and effectively when they happen.	To respond quickly and effectively to emergencies
		To reduce unwanted calls
		Ensure that the best possible resources are allocated on a risk basis
		Ensure arrangements are in place for major incidents
Prevent & Protect	Our aim is to minimise risk to those who live, work and travel in Hertfordshire. We aim to prevent emergencies from happening in the first place, and protect citizens and businesses from harm through our enforcement activities.	To reduce fires, road traffic collisions, other emergencies, deaths and injuries
		To work in partnership to make Hertfordshire safer and support health and wellbeing
		To achieve a safe and just trading environment, supporting the Hertfordshire economy and helping to reduce crime
		To target our prevention, education, enforcement and protection work
Be an Excellent Organisation	Our aim is to provide the best possible service to Hertfordshire by maintaining professional standards, continuously improving our services and keeping costs down.	To deliver excellent performance and value for money
		To put communities at the heart of what we do, understand their needs and deliver an accessible service
		To maintain a competent, professional workforce who learn from experiences, adapt to change and are representative of the communities we serve
		To reduce our impact on the environment

19 Your Fire & Rescue Service

HFRS will consult with all organisations and key stakeholders on the content and proposals within this plan.

A draft copy will be made available to the following:

- **The General Public**
- **Employees of the Community Protection Directorate**
- **Representative bodies**
- **The Office of the Police and Crime Commissioner**
- **County and District Councils.**
- **Neighbouring fire and rescue services**
- **Local Resilience Forum members**
- **Other external partners and stakeholders**

HFRS will consider as part of its completed IRMP all responses received from the distribution and consultation of the draft version.

Glossary of Terms

Attendance Standards

The time taken for a fire engine to arrive at an incident, measured from the time of call to 'In attendance' and is recorded as first appliance, second appliance and third appliance. Also applicable to Road traffic collisions and Hazmat incidents.

Breathing Apparatus Sets

An item of equipment that allows the wearer to breathe in an irrespirable atmosphere.

Crewing System

The pattern of shifts worked by staff to ensure sufficient personnel are always available to crew fire engines.

Deliberate Fires

Fires that are believed to have been started intentionally.

East Coast Consortium

A group of Fire and rescue services – Hertfordshire, Norfolk, Humberside and Lincolnshire - that are joining together to provide greater interoperability and resilience.

Enhanced Logistical Support

A Command and Control capability used to manage and coordinate resources in response to a major emergency.

Fire Control

The name given to the Fire emergency response and mobilising centre. Where all 999 calls are answered.

Fire Engine Standbys

When a fire engine is not assigned as part of the original mobilisation to an emergency incident but is used to cover deficiencies in fire cover or to relief appliances that have been committed to an incident for an extended period of time.

Flexible Duty Officers

A role afforded to members of staff at Station Commander, Group Commander and Area Commander level to provide operational response at emergency incidents.

Glossary of terms

High Pressure Air Mats

An item or items of equipment carried on fire engines that are designed to raise or lift a heavy object such as a vehicle off of the floor.

High Volume Pump

Specialist appliance and equipment designed to relay or supply high volumes of water over large distances. Used for firefighting and flooding.

Mobile Data Terminals

Data terminal that is portable but normally fixed inside a fire engine to provide information such as crash recovery, hydrants, maps and directions.

Mosaic Data

A set of data that uses lifestyle factors to predict vulnerability and risk.

On Call Firefighters

Formerly known as the Retained Duty System (RDS) On call refers to part time firefighters who live or work within 4 minutes of a fire station and are able to respond to emergency calls via an alerter.

Over the Border

Refers to appliances that have come from a neighbouring fire and rescue service such as Essex, Cambridge or London to support HFRS in its operational response.

Personal Protective Equipment

Equipment provided to staff to protect against hazards and reduce or eliminate risks.

Primary Fires

A fire involving property or casualties.

Principal Officers

The most senior managers within a F&RS, Chief Fire Officer, Deputy Chief Fire Officer and Assistant Chief Fire Officer.

Risk Based Inspections

An inspection of non-domestic premises to identify risk and support individuals and organisations to make their premises safe. Can be done by operational personnel or fire protection personnel.

Glossary of terms

Safe and Well Visits

An assessment carried out in the homes of elderly and vulnerable people to provide advice, guidance and signposting related to fire safety, health and well being.

Secondary Fires

A fire of no discernible value or ownership such as rubbish fires.

Specialist Appliances

An appliance that has a specific role at emergency incidents eg an Aerial Ladder Platform (ALP) that provides a high reach capability.

Water Rescue Capability

The personnel, training and resources required to respond to water related incidents.

Wholetime Firefighters

Full time firefighters