



# *Continuing the Journey*

# 2015 – 2020

## Public Safety Plan

for consultation



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## ***Introduction from the Chairman***

*There is clearly a lot of data and information which underpins our integrated risk management planning process. What is also clear is that we have been extremely successful in reducing the risks within our communities, not only from the effects of fire, but also from other emergencies. We accept that those that we serve demand a first class response in their hour of need, whatever the emergency, and we are proud that we continue to provide and improve on how we respond to calls for assistance. We are also very proud of our successes in other areas, such as the prevention of emergencies occurring in the first place and our engagement with partner organisations and other stakeholders including the business communities within Buckinghamshire & Milton Keynes in helping to protect their businesses and premises. We value and understand the benefits this brings to those we serve and protect in respect of the local economy.*

*To be truly transformational in our quest to reduce risk within our communities, we must embrace more flexible ways of approaching our core responsibilities and the way that we work. With the resources we have available to us, we must focus on where we can provide the very best safety services to those who need them and therefore a more flexible and blended approach between how we prevent emergencies, protect life, properties and the environment and also respond when called upon.*

*This document is based upon our ever evolving integrated risk management planning process and sets out how we plan to continue our improvement journey towards making Buckinghamshire & Milton Keynes the safest places in England in which to live work and travel. We would like to hear your views on what you think of our proposals, plans and ambitions.*

## ***Introduction from the Chief Fire Officer***

*The fire and rescue 'landscape' has changed dramatically over the last ten years or so. We have seen a dramatic reduction in the number of emergency incidents and consequent deaths and injuries across the UK including here in Buckinghamshire and Milton Keynes. These changes result from a broad range of measures taken by government, industry and the fire and rescue service to improve the safety of the public.*

*They are all the more remarkable when they are considered against the backdrop of what traditionally has caused rising risks, such as a population that is growing, ageing and becoming more diverse at a time when fire and rescue authorities are having to find ways of reducing their expenditure to cope with reducing funding from central government and constraints on their ability to offset this through local taxation.*

*Whilst fire and rescue authorities have taken steps to respond to this changing environment there is still more to do as the recent review of the fire and rescue service conducted by the former Chief Fire and Rescue Adviser, Sir Ken Knight shows. Here in Buckinghamshire and Milton Keynes we have been at the forefront in terms of making your fire and rescue service a lean and efficient operation whilst maintaining and, indeed, improving our effectiveness. In addition to already being one of the lower cost fire and rescue services in the country we were, this year, able to set the lowest Council Tax rate of any combined fire authority in England thanks to the effectiveness of the measures we have already taken to date.*

*We are not, however, content to 'rest on our laurels' and nor, indeed, can we afford to do so given the continuation of a constrained outlook for the funding of all public services over the next few years. Nor are we complacent about the potential risks facing the communities we serve, despite the reduction in incidents that has occurred. The pace of change in the areas that we serve shows no sign of reducing and this can result in increased or new types of risk as shown in this plan.*

*This plan also sets out how we intend to continue the search for efficiencies so that we can develop and improve the services and value that we deliver to the public that we serve and on whose support we rely. We hope that you will take the opportunity to read this plan and respond to our consultation. Any comments or ideas that you may have will be fully considered and taken into account when we re-present the plan to our Authority Members for approval at their December 2014 meeting following the outcomes of the consultation.*

# ABOUT THIS PLAN

## *2015 - 20 Public Safety Plan*

This Public Safety Plan sets out [Buckinghamshire and Milton Keynes Fire Authority's](#) strategy for the provision of fire and rescue services for the five year period April 2015 to March 2020. It supersedes the existing [2012 – 2017 Public Safety Plan](#).

The Plan has been developed using integrated risk management planning methods and is designed to conform to the [Government's guidance](#) in relation to the preparation of integrated risk management plans.



Picture

## *Additional information*

Throughout this plan we have hyperlinks to other documents and external information sources to provide more detailed information on particular issues and to aid understanding.

Buckinghamshire and Milton Keynes Fire Authority are not responsible for content held on external websites linked to this plan. The inclusion of any such links does not necessarily imply a recommendation or endorse the views expressed within them. We have no control over the nature, content or availability of information held on external websites.

## *Integrated risk management planning*

Under the [Fire and Rescue Services Act 2004](#) provision of fire and rescue services in England is a local government responsibility. However, in formulating their plans and policies, local fire and rescue authorities are required to have regard to guidance issued by central government in its [National Framework](#) document. This sets out the government's expectations and requirements for all fire and rescue authorities in England.

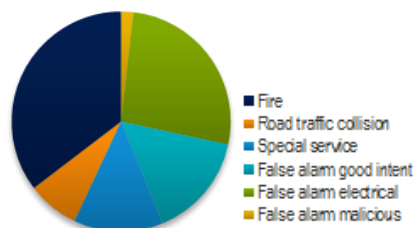
The National Framework requires fire and rescue authority integrated risk management plans to:-

- Identify and assess all foreseeable fire and rescue related risks that could affect the communities they serve including those of a cross-border, multi-authority and national nature;
- Demonstrate how prevention, protection and response activities will best be used to mitigate the impact of risk on communities through authorities working either individually or collectively in a cost effective way;
- Set out their strategy and risk based programme for enforcing the [Regulatory Reform \(Fire Safety\) Order 2005](#);
- Be easily accessible and publicly available;
- Reflect effective consultation throughout their development and at all review stages with the community, its workforce and representative bodies, and partners;
- Cover at least a three year time span and be reviewed and revised as often as it is necessary to ensure that fire and rescue authorities are able to deliver the requirements set out in this Framework;
- Reflect up to date risk analyses and the evaluation of service delivery outcomes.

# WHO WE ARE AND WHAT WE DO

## Incidents by type

Fires (35% of total incidents) account for our highest proportion of incidents overall, followed by False alarm electrical (27%), False alarm good intent (15%), Special service (13%), Road traffic collisions (8%) and False alarms malicious (2%)



## Buckinghamshire and Milton Keynes Fire Authority

Buckinghamshire and Milton Keynes Fire Authority ('The Fire Authority') is a local government body with responsibility for providing fire and rescue services for the county of Buckinghamshire and borough of Milton Keynes.

It oversees, on behalf of the public, the work of Buckinghamshire Fire and Rescue Service which undertakes the physical delivery of fire and rescue related safety and emergency response services.

The Fire Authority is made up of 17 elected Councillors – 12 nominated by Buckinghamshire County Council and five nominated by Milton Keynes Council in proportion to the size of their respective populations. The members of the Fire Authority make important decisions affecting the provision of fire and rescue services including:-

- Setting the annual budget and [Council Tax charge](#);
- Agreeing the staff, equipment and other resources needed to deliver an efficient and effective service;
- Approving Buckinghamshire Fire & Rescue Service's plans, policies and strategies.

## Our Vision

Is to make Buckinghamshire and Milton Keynes the safest areas in England in which to live work and travel.

## Some facts and figures

### Last year we:

- Visited 5,934 homes in our quest to target those who are most vulnerable and at risk from fire based upon our research and work with partners
- Received 14,796 calls for emergency assistance
- Attended 6,556 emergency incidents
- Set the lowest Council Tax charge of any combined fire authority at £59.13 for a Band D household.

### We have:

Count	STAFF	Description	Average cost/year per staff member
333	Wholetime firefighter	24/7	£38k
	Day-crew fire fighter	09:00-18:00 full-time cover 18:00-09:00 on-call cover	£47k
269	On-call fire fighter	24/7 depending on availability of crew	£7k
21	Control room staff	24/7	£28k
100	Support staff	37 hours per week, green book T&C's	£32k

Count	FIRE APPLIANCE	Description	Operating cost/year (crew, fuel & maintenance) per fire appliance
9	Wholetime fire engine	24/7	£1.1m
4	Day-crewed fire engine	09:00-18:00 full-time cover 18:00-09:00 on-call cover	£570k
18	On-call fire engine	24/7 depending on availability of crew	£99k

# STRATEGIC CONTEXT

## *Fewer Incidents... Reducing Risk... A Safer Environment*

Over the last decade (between 2002/03 to 2012/13) there has been a dramatic reduction in the number of fire related incidents and consequent deaths and injuries across the UK.

2002/03 – 2012/13	Nationally	Buckinghamshire & Milton Keynes
Fires	↓ 63%	↓ 54%
Serious Injuries	↓ 54%	↓ 68%
Deaths	↓ 35%	Too low for meaningful statistical analysis (between 0-6 per year)

([Source: Fire Statistics Monitor, April 2012 – March 2013](#)).

These changes have been [attributed](#) to the cumulative effect of various measures on fire risk including:

- Better building and furniture regulations
- The introduction of integrated risk management planning across UK fire and rescue services
- An increased focus on prevention and protection activities
- The installation of smoke alarms in most homes
- The success of high profile fire safety campaigns such as the Government's 'Fire Kills' campaign.

## *Facing the Future*

To help fire and rescue services respond to the changed nature of their operating environment the government commissioned a national review of opportunities to improve their efficiency. This review was undertaken by Sir Ken Knight - a former Chief Fire and Rescue Adviser to the Government. The [report](#) found that whilst much progress had been made there is still potential to improve both the efficiency and effectiveness of fire and rescue service operations in “a completely different era of risk and demand” by, amongst other things, fire and rescue authorities:

- Better aligning expenditure in relation to risk rather than spending to their current budgets;
- Adopting innovative crewing and staffing models already being pursued within some individual authority areas;
- Increasing reliance on ‘on call’ (part-time) firefighters in areas where risk and demand are low;
- Improving collaboration and sharing of knowledge and learning between fire and rescue services to reduce duplication of effort;
- Improving collaboration with other blue light services by, for example, using Fire and Rescue capacity to support the ambulance service by responding to certain types of incident (known as co-responding) or sharing sites and facilities (co-location);
- Ensuring that there is a sound ‘business case’ behind using firefighters for wider community work such as working with ex-offenders or children at risk of exclusion from school.

The findings of this review have been taken into account in the preparation of this plan and it sets out how we propose to pursue many of the opportunities identified by it.

# PUBLIC EXPECTATIONS

## Listening to the views of the public

To help inform the development of this plan we carried out a consultation exercise with the public. The purpose of this was to explore:

- Awareness of and attitudes towards risks;
- Perceptions of the fire and rescue service, its services and any expectations in relation to these;
- Awareness of the issues and challenges facing the fire and rescue service and general feelings about potential ways that the Fire Authority could respond to these.

The consultation was undertaken in November and December 2013 and was designed to ensure that it embraced a representative sample of the public that we serve. It consisted of five focus groups, involving a total of 50 participants, held in various locations across the area served by the Fire Authority. The focus groups used a 'deliberative' approach which encouraged members of the public to reflect in depth about the fire and rescue service while receiving and questioning background information and discussing important issues in detail.

A flavour of the range of views expressed by the participants about some of the issues explored in the consultation is shown on this page. The full findings of the consultation report can be seen [here](#).

### Funding the Service

*"£59 is not enough!" "Would I be prepared to pay more? Yes I would!"*

*"The question shouldn't be 'should we pay more?' – the question should be should we rebalance the resources of BFRS?" "Are we at risk – do we need to pay more? I don't feel at risk!"*

#### Attitudes to risk

- *"It's understanding and being aware of it but not necessarily worrying about it. Recognising there are things you can adjust to minimise it"*
- *"If you don't understand the risk then you become more of a Pessimist"*
- *"At work I have to be a [Risk] Manager as I have to do risk assessments, but personally I am more of an Optimist".*

#### What people really worry about

- *"The health of your family..."*
- *"Children – I don't want to see them in danger"*
- *"Older children when you let them do things for themselves & you get a phone call in the night"*
- *"You almost worry more for your grandchildren because the world has changed so much..."*
- *"I worry about things like trying to get home from work in time to make sure the kids are fed before they go to scouts. Logistical things rather than dangers... running my life"*
- *"Illness is one... my parents are now in their seventies and they've had a lot of ill-health and if I stop to think about it, it does scare me"*
- *"The day-to-day cost of living; the financial side of things is a worry"*

#### Responsibility for managing risk

- *"Everyone should take responsibility for their actions as much as possible but the Fire Service has to be there to respond to every incident"*
- *"There can be no differentiation at the point of requirement but there must be some education so that everyone takes as much responsibility as they can"*

#### Response times

- *The idea that everyone should be treated equally (that is, equally protected in this context) led some to wonder if response times might be fairer if they were somehow 'equalised'*
- *"Logically we have to accept they're going to be longer in rural areas"*
- *"If its about life and you've got a smoke detector you can get out so then it doesn't matter what the response time is. They are going to save your property...but... not your... life because you're already out".*
- *"Lots of people said it's about risk to life but actually if someone's house is on fire they will want that house to be saved... People wouldn't admit how high they'd put their property in terms of survival – that it's only just a little bit below life"*

#### Working with Others

- *"We rang for an ambulance as a lady had come to our meeting with chest pains and I was surprised when a firefighter rolled up really quickly. I thought it was a really good use of resources"*
- *"Why shouldn't every police officer be trained to use a defibrillator for example? I think there's a lot of scope for integration between the services to make some efficiencies."*

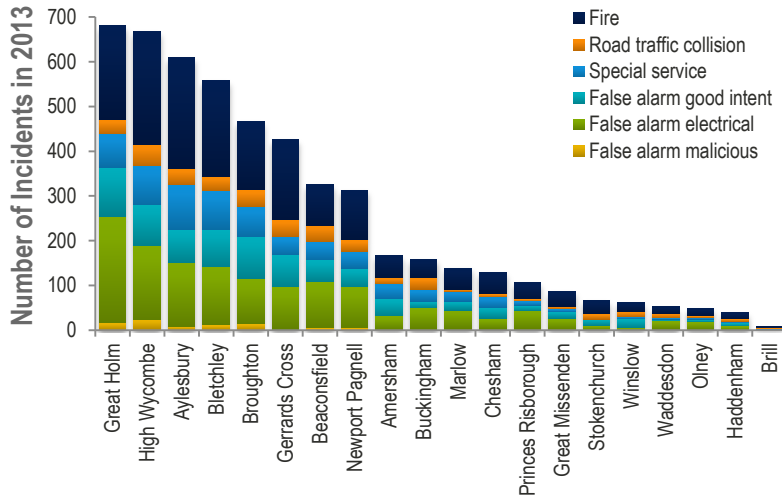
#### Attitudes to fire risk

- *"Fire is not really an 'everyday' risk nowadays – due to improved safety measures!"*
- *"I think it's in the manage category isn't it? We've got working smoke detectors and homes are generally a lot safer than they used to be. There's less smoking, fewer open fires"*

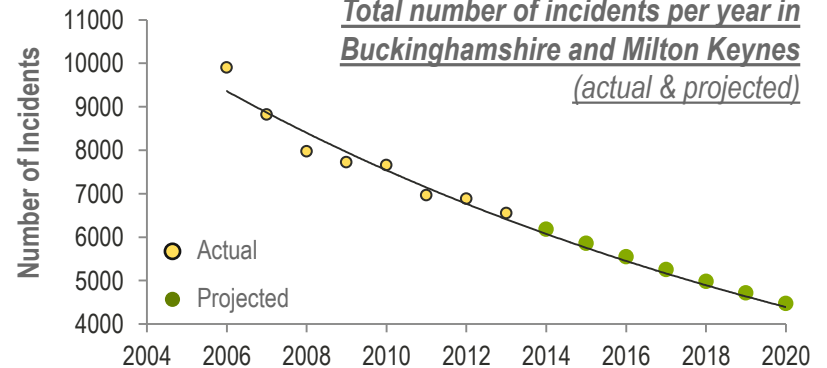


# TRENDS IN DEMAND

The number of incidents by type that occurred on each station ground in Buckinghamshire and Milton Keynes during 2013



Total number of incidents per year in Buckinghamshire and Milton Keynes (actual & projected)



## Demand from incidents is projected to decrease

In 2006 we experienced around 10,000 incidents per year, if the current trend continues, by 2018 that demand will have halved to around 5,000 incidents per year. This decline is being seen [Nationally](#).

## Number of incidents by station ground

Our aim is to align our highest cover with the greatest demand.

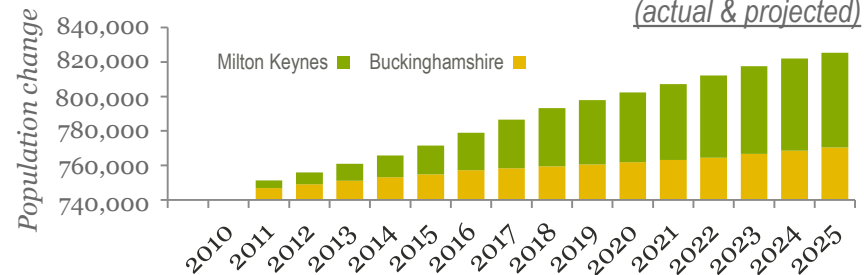
[Whole-time stations](#) are open 24/7 and have crews on site ready-to-go. As we would expect, our whole-time fire stations see the highest demand from incidents, followed by [day-crew](#) and then [on-call](#).

There is however an exception, where the day-crewed station at Gerrards Cross experiences more incidents than the whole-time station at Beaconsfield.

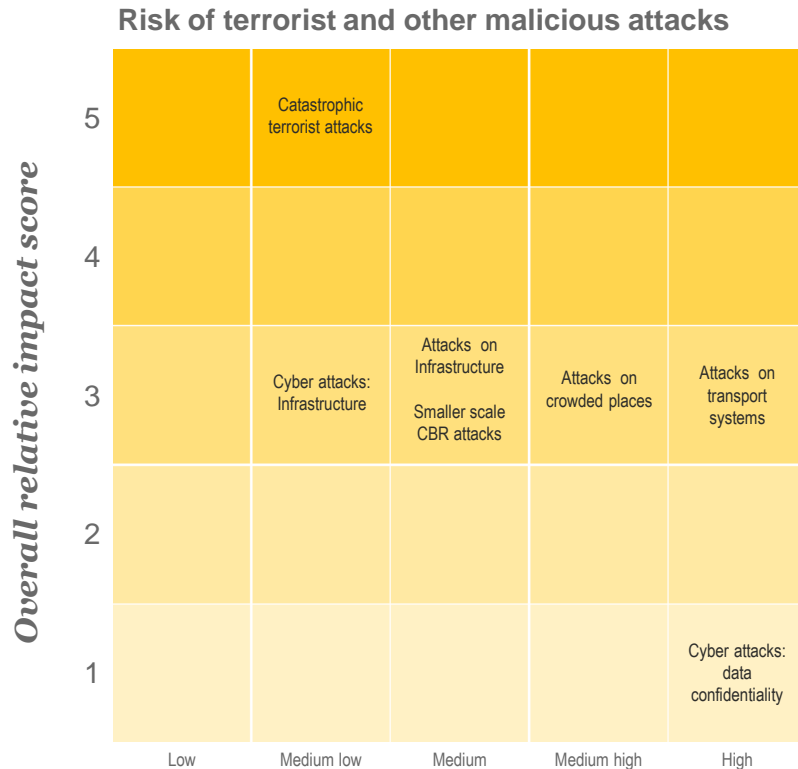
## Despite an increasing population

Between 2004 and 2011 the population of Buckinghamshire increased by 4% and Milton Keynes by 7% according to ONS mid-year population projections.

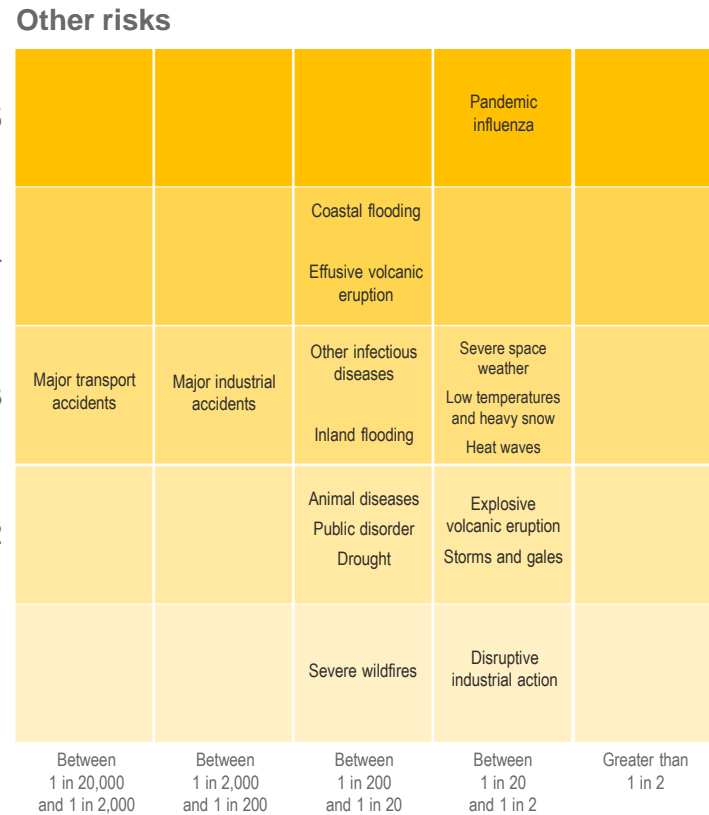
Population change in Buckinghamshire and Milton Keynes (actual & projected)



# NATIONAL & REGIONAL RISKS



*Relative plausibility of occurring in the next 5 years*



*Relative likelihood of occurring in the next 5 years*

## Supporting national and regional resilience

[Government guidance](#) indicates that fire and rescue authorities should consider national and regional risks when preparing their plans. The above charts provide a summary of the Government's current national risk assessment published by the Cabinet Office. The full assessment can be seen in the [National Risk Register](#). A more localised assessment of these and other regional risks is produced by the Thames Valley Local Resilience Forum in which we participate. This is published in the [Thames Valley LRF Community Risk Register](#). We maintain a range of specialist capabilities to deal with many of these risks, such as our Urban Search and Rescue (USAR) team based in Aylesbury, which can be deployed to major regional or national emergencies as well as being available for local incidents.

# LOCAL RISK PROFILE

## Rural Aylesbury Vale:

- Potential for more frequent or severe building fires due to:
  - Older housing stock with unmodernised wiring or heating systems.
  - remote locations with poor road and house signs making properties more difficult to find.
  - Heritage properties with old dry timbers.
- Greater casualty risk due to ageing population
- Serious RTCs as people use A-roads and lanes as 'rat-runs' to avoid getting stuck in town traffic jams, particularly during stormy or extremely cold weather

## Princes Risborough and Great Missenden:

- House fires in older properties in more remote locations
- RTCs on the A4010 and lanes

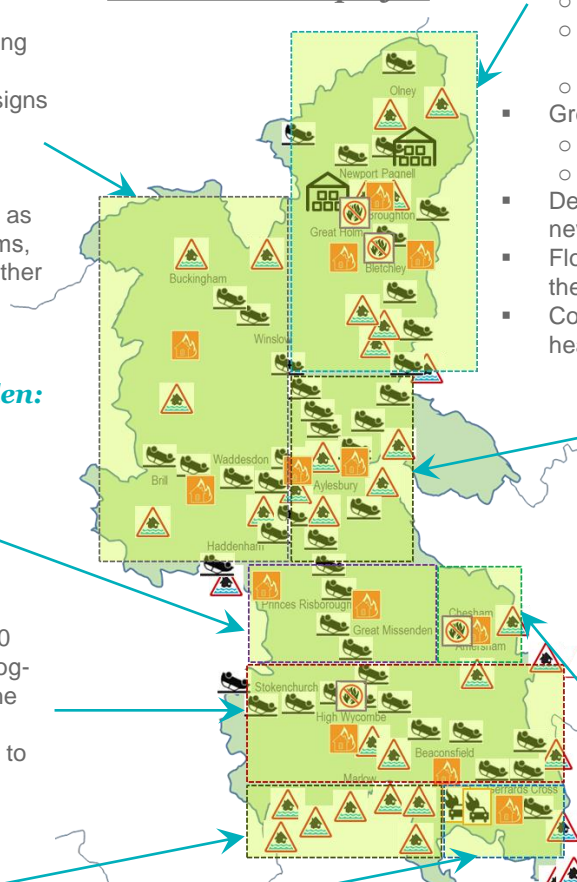
## M40 corridor:

- Driver behaviours on sections of the M40 which undulate and meander, surprise fog-patches; and the M25, which is one of the busiest motorways in Europe.
- Deliberate fires in High Wycombe linked to risk factors associated with deprivation
- Greater casualty risk due to houses of multiple occupancy (HMO)

## River Thames:

- Flood risk to people and property along the River Thames

A map of Buckinghamshire and Milton Keynes to show our current risk profile



## Milton Keynes:

- RTCs due to nature of driving on the road grid-network, M1 and A509
- Fires in warehouses, some of which are un-sprinklered
- Rapid burn house fires due to poor quality build associated with some post-war housing estates
- House fires due to:
  - large population and housing density
  - multi-cultural festivities throughout the year (e.g. use of candles)
  - risk factors associated with deprivation in some areas.
- Greater casualty risk in house fires due to:
  - ageing population
  - houses of multiple occupancy (HMO)
- Deliberate fires owing to the dumping of old furniture and newspaper waste in some areas
- Flooding - the Great Ouse river to the north and River Ouzel to the south
- Commercial risk owing to the large number of business headquarters

## Aylesbury Town:

- Potential for more severe house fires due to poor-quality build of some post-war housing.
- Greater casualty risk due to houses of multiple occupancy (HMO)
- Serious RTCs as people use A-roads and lanes as rat-runs to avoid town
- Flooding causing disruption to commuters and residents due to River Thames and tributaries on the flood plain

## Chesham and Amersham:

- House and deliberate fires due to risk factors associated with deprivation in some areas.
- Greater casualty risk due to houses of multiple occupancy

## South Bucks:

- Deliberate and accidental outdoor fires due to:
  - Stolen cars being dumped and burned in the woods
  - Soil having a high peat content which transmits heat during outdoor fires and keeps relighting itself
- Slower response times as country park users block access gates with vehicles when picnicking or walking
- Flood risk to people and property along the River Thames

**Key**

- House fire
- Deliberate fires
- Warehouse fires
- Flooding
- Road Traffic Collisions (RTCs)
- Car fires

# FUTURE RISK FACTORS

## Infrastructure

[East West Rail \(EWR\)](#) construction is due to start in 2016. [High Speed Rail 2 \(HS2\)](#) construction is due to start in 2017. These railway lines will bring *disruption* in the short-term owing to blocked access routes. Construction workers will cause temporary increases in populations, which could *increase the number of incidents*, but in the long-term we might see a *reduction in the number of road traffic collisions* owing to a shift from road to rail use. We might also see *new risks emerging* caused, for example, by the introduction of long tunnels under the Chilterns.

## Neighbouring brigades

We work in partnership with our neighbouring brigades: London Fire Brigade, Northamptonshire, Bedfordshire, Hertfordshire, Royal Berkshire and Oxfordshire to understand whether they are planning any changes that could affect the emergency response to our communities and to identify opportunities for collaboration.

## Climate change

The Met Office predicts more summertime heat-waves, colder winters, more frequent heavy rainfall events and increased flooding events. Click [here](#) for Met Office report and [here](#) for BBC report.

This suggests that we can expect to see more *summertime outdoor fires*. Historically, the combination of school holidays and outdoor leisure spots (parks and woodland) see increased incident demand with hot, dry conditions. We can expect *greater disruption to travel* owing to extremely cold (ice and snow) winter conditions. *Increased flooding events* are most likely to affect Marlow, Aylesbury and Milton Keynes. Click [here](#) for Environment Agency flood warning plan. More stormy weather will likely affect travel across the County as a result of debris from fallen and damaged trees.

## Built environment

Milton Keynes: Anticipate [28,000 new dwellings](#) by 2026. [Proposed sites](#) include: Stony Stratford, Wolverton, Newport Pagnell, Kingston, Woburn Sands, Bletchley and Westcroft.

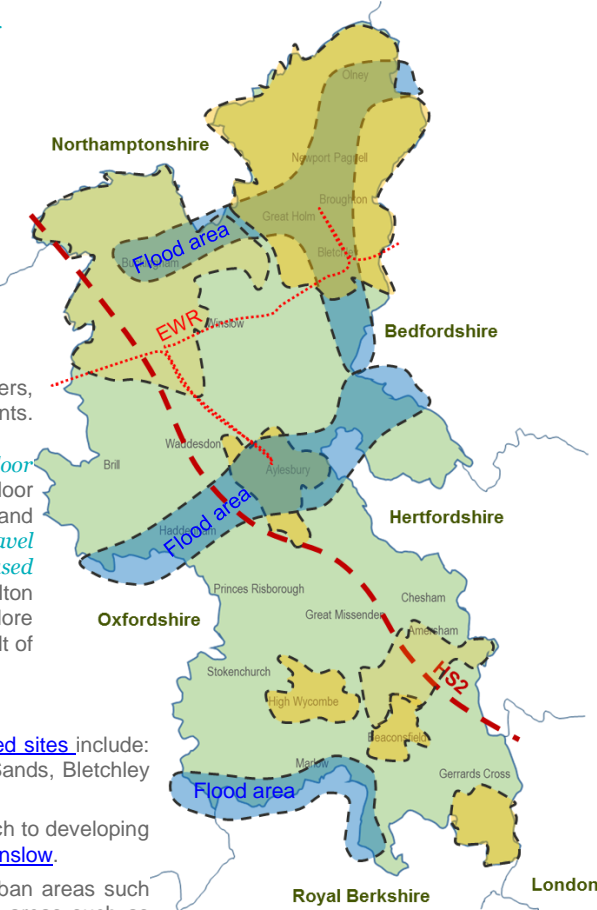
Aylesbury Vale District: Plan has been [withdrawn](#), but the approach to developing a new one is under [consultation](#). A plan has been submitted for [Winslow](#).

[Wycombe District](#): Proposing 480-715 new homes per year in urban areas such as High Wycombe, Wye Valley & Princes Risborough, and rural areas such as Saunderton, Stokenchurch, Kimble and Terrick.

[Chiltern District](#): Require 2650-2900 new dwellings from 2006-2026. Current housing proposal sites include: Amersham, Chesham, Great Missenden, Prestwood, Holmer Green and South Heath.

[South Bucks District](#): Proposed sites include: Beaconsfield, Gerrards Cross and Taplow.

***A map of Buckinghamshire and Milton Keynes to show our future risks colour-coded by type***



## MK population and demographic change

Between 2002-2012, Milton Keynes has experienced a *population growth*, which is forecast to continue. The MK *age profile* is younger than for England as a whole, but is projected to align more closely with England by 2026, except for 5-19 year olds which will be significantly higher. The *ethnic diversity* of MK has increased more than for England generally, with the largest increase seen among Black African, Other White (European Migrants) and Indian. The 2011 Census outlined that the number of MK *residents born outside the UK* has more than doubled, with the largest change from Polish-born residents. Christians account for the largest *religious* group (53%) followed by Muslims (5%), which is about 2.5 times larger than it was in 2001 and Hindu (2.8%), which is nearly double the proportion for England as a whole. *There is the potential for increased incident demand aligned with population increase and more varied causal factors aligned with different cultural backgrounds.*

Click [here](#) for population information and [here](#) for cultural considerations







## Buckinghamshire population and demographic change

Population density has increased by 9-13% in: Greater Aylesbury, High Wycombe, Beaconsfield and Wexham & Iver wards, and by 5-9% in Buckingham and Amersham wards. All other areas have seen a 0-5% increase except Haddenham and Long Crendon where populations have decreased by -4 to 0%. Fires are well correlated with population density, *This suggests that our future demand from Fires will increasingly come from urban areas and our demand around Brill and Haddenham is likely to reduce.* Click [here](#) for more detail.

Buckinghamshire has proportionately fewer 15-35 year olds than England as a whole. Chiltern and South Bucks have proportionately more 45+ year olds relative to Buckinghamshire as a whole and Aylesbury Vale and Wycombe have a higher proportion of 0-45 year olds relative to Buckinghamshire as a whole. *Older age-groups incur injuries because they find it more difficult to get out in the event of a fire. Younger age-groups tend to incur injuries when they attempt to tackle the fire themselves.*

# CURRENT RESOURCING

A map to show our station locations and duty systems, the number of fire engines by type of cover and specialist appliances by location

-  Full-time  
(crew based on station)
-  On-call  
(crew live/work <5 mins from station)
-  Spare fire engine
-  Training school fire engine
- sfu – small fires unit
- boat – water rescue
- Aer – aerial appliance
- BA – breathing apparatus support van
- O – operational support unit
- I – incident response unit (decontamination)
- RSV – rescue service vehicle
- CC – command & control bus
- d – fire investigation dog van
- USAR – urban search and rescue
- CS – community safety exhibition unit
- WFm – water & foam tanker
- HL – high volume hose layer
-  Day
-  Night



Our **Whole-time** stations provide full-time emergency response cover 24/7, every day of the year. These stations also have additional capacity offered by ‘on-call’ fire-fighters available on a 5 minute turn-out time.

Our **Day-crewed** stations provide full-time cover during the day (09:00-18:00 hours) and On-Call cover at night (18:00-09:00 hours). These stations are made-up of a blend of whole-time and on-call crews.

Our **On-Call** stations use firefighters who live/work in the area and come in as and when required. They must be within 5 minutes of the station.

We also operate an emergency control room function which deals with calls for assistance although this will be migrating to a new shared facility with Royal Berkshire and Oxfordshire at the end of 2014.

# OUR ON-CALL CREWING MODEL

## *Our On-call duty system needs to reflect modern work and lifestyle preferences*

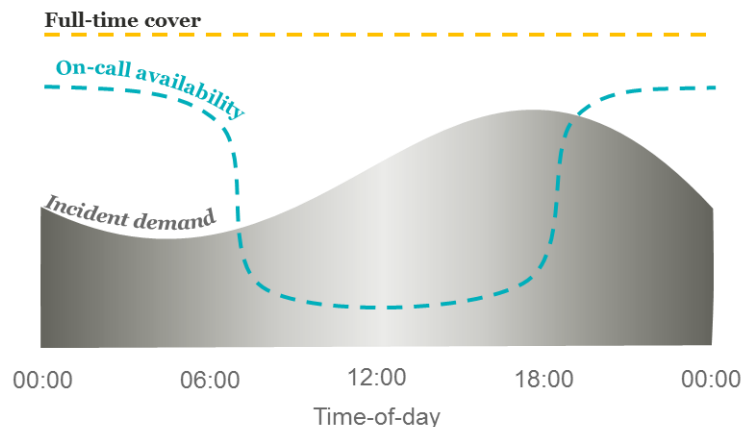
*“We can’t get the personnel during the day when the demand is highest, the local villages and towns just don’t have the business infrastructure to keep people there during the day, so people are travelling further afield to find work...*

*...people also have lots of hobbies and interests and don’t want to be limited to their home area during their spare time....*

**(Quote:** Station Manager, 2014)

### *Availability of our on-call fire fighters is at its lowest...*

*...when our incident demand is at its highest*



Sir Ken Knight’s review of the fire and rescue service identifies the potential for fire and rescue authorities to consider making more use of on-call firefighters as one of the ways of responding to the reduction in emergency incidents that has taken place in recent years and also meeting the efficiency challenge posed by the reductions in government funding for the fire and rescue service, particularly in rural or other lower risk environments. This is because it is a more economical model of providing fire cover than the Wholetime or Day Crew models.

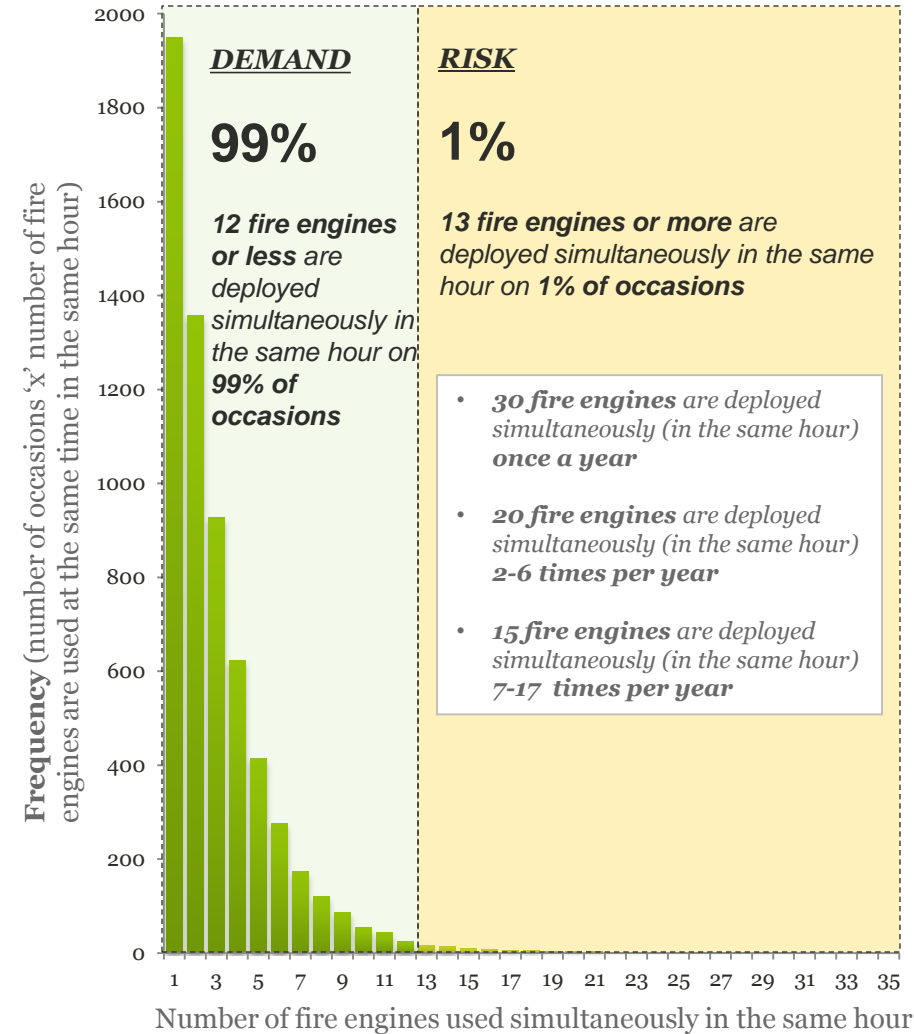
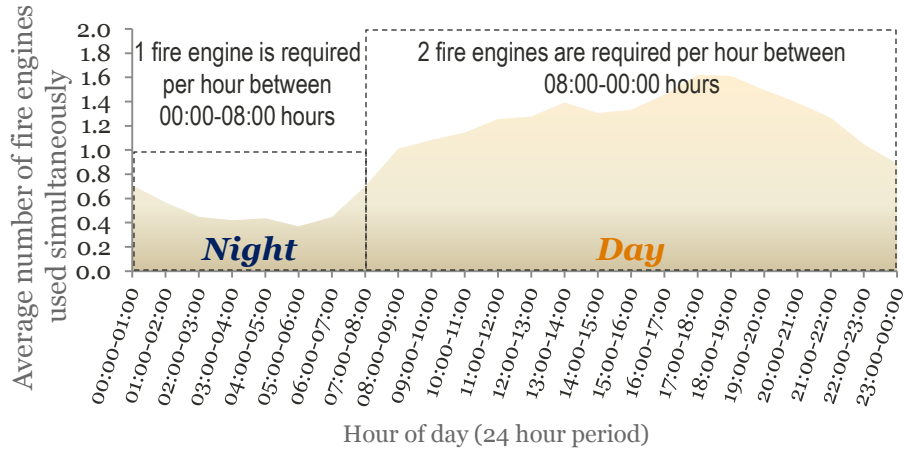
We already make extensive use of on-call firefighters in rural areas with ten of our 20 fire stations crewed solely in this way. We also use on-call firefighters to provide additional capacity at many of our Wholetime and Day-Crew stations where they typically crew a second, third or specialist fire appliance.

However, as the graph on the left shows, the availability of on-call firefighters in rural areas tends to be at its lowest during the working day for the reasons identified in the quotations. This often means that on-call fire appliances are not available during this period which is also when we experience our highest level of demand for emergency response services. Currently we are able to manage this issue because we have sufficient capacity to back up our on-call stations with cover from adjacent Wholetime and Day Crew fire stations. However were we to move to a model which placed increasing reliance on availability of on-call firefighters during the working day then ways of improving the reliability of this form of cover would need to be found. Details of our approach to this challenge are set out in the next section.

# RESOURCING FOR DAILY DEMAND AND INFREQUENT MAJOR EMERGENCIES

*Fluctuations in simultaneous demand for use of fire engines across a typical day across Buckinghamshire and Milton Keynes*

*Number of fire engines used simultaneously in the same hour and the frequency with which this occurs across an average year*



## Balancing efficiency with resilience

One of the key challenges we face is striking the right balance between the level of resources we need to deal with normal day to day demand for emergency response services and achieving the response times we set ourselves, whilst also maintaining proportionate and cost effective ways of dealing with less frequent major emergencies. We intend to make changes to the way we provision for less frequent risks to ensure that they are put onto a more sustainable and cost effective footing.

**Low level demand:** The graph above shows that on a typical day we use on average up to 1 fire engine per hour across Buckinghamshire and Milton Keynes at night and up to 2 fire engines per hour during the day. The service currently has a provision of 31 fire engines.

**Infrequent risk:** The graph to the right shows that on 1% of occasions we require 13 fire engines or more simultaneously in the same hour. We need 30 fire engines simultaneously (same hour) once a year, 20 fire engines 2-6 times per year and 15 fire engines 7-17 times per year.

# MEASURING OUR GEOGRAPHIC CAPACITY

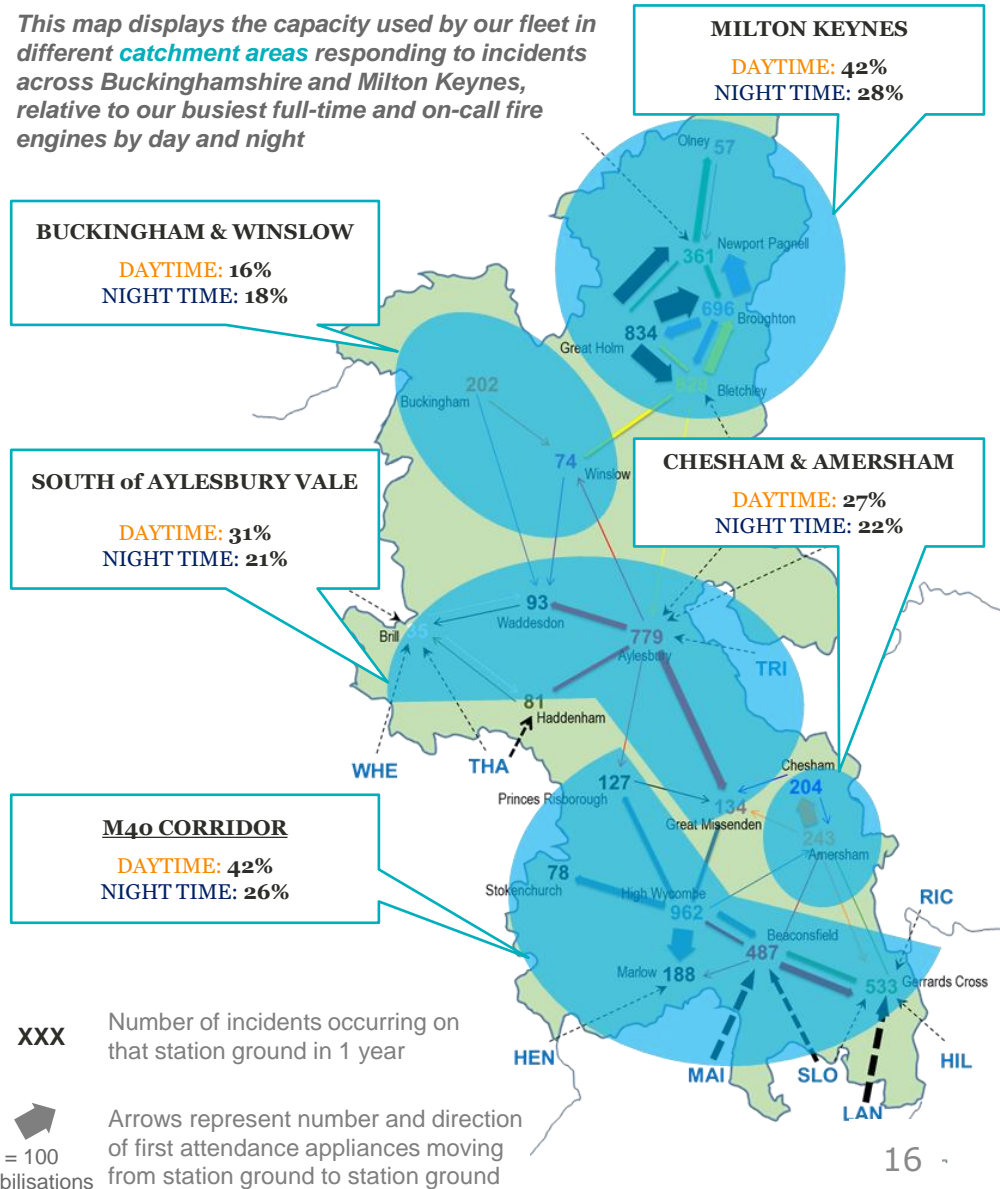
## We would like to optimise the capacity of the fleet

Analysis revealed that our busiest full-time and on-call fire engines attend on average 3.4 and 1.2 incidents respectively in a 24 hour period across the year.

Tracking the movement of fire engines across Buckinghamshire and Milton Keynes revealed that our Response function is divided into five catchment areas. Fire engines in these areas manage the majority of the demand in those given areas.

The capacities for the busiest fire engines were applied to the provision of full-time and on-call fire engines in each catchment area. We then compared the actual number of incidents that occurred in each catchment area to the capacity of that area, which is displayed by day and night on the map opposite. Across Buckinghamshire and Milton Keynes our Response function uses on average 32% of its capacity during the day falling to 21% of its capacity at night.

If you consider that nearly 90% of our incidents last less than 1 hour, this means that our busiest full-time and on-call fire engines are typically used for responding to incidents for less than 3.5 and 1.5 hours respectively per day, when theoretically they have the capacity for nearly 24 incidents per day.





# RISK MANAGEMENT STRATEGY

## VISION

“Buckinghamshire & Milton Keynes are the safest places in England in which to live, work and travel”

### Prevention

Providing education on how to prevent, prepare for and respond to emergencies

### Protection

Enforcing, advocating and campaigning for high standards of safety

### Response

Where risk levels remain intolerable, despite our efforts to engineer and eliminate them, providing appropriate high quality response services

## *Achieving our Vision*

Our broad approach to achieving our vision in the context of the risks and challenges set out in the preceding section is to optimise the balance between our prevention, protection and response activities and to ensure that they are as efficient and effective as they can be.

### **In particular we aim to:-**

- Continue to drive down numbers of incidents by improving our ability to target those most at risk of fire and other emergencies and ensure that the measures we take are effective and represent good value for the money and effort involved in delivering them.
- Contribute the safety and prosperity of our economy by working with the business community to ensure that they are well protected from the risk of fire and other emergencies.
- Reshape our emergency response capabilities and resources to ensure that they are right for current and future levels of risk and demand.

We will now set out how we intend to pursue these aims.

# PREVENTION STRATEGY

## *Improving our ability to target, increase and evaluate the effectiveness of prevention work*

*“We have historically seen a reduction in fire calls and have put that down to Prevention work, but there have been a number of variables that were simultaneously changing over that period of reduction. For example: improved furniture regulations, building fire regulations, fire retardant materials, emergency cut-off switches in electrical equipment and an increased tendency to get takeaway food on the way home instead of cooking under the influence of alcohol...”*

*...it also takes a long time to see the impact of Prevention work, take fire setting as an example: if you intervene with a 14 year old and they then don't set another fire until they are 35 years old, is that a success or a failure?”*

**(Quote: Station Manager, 2014)**

We have traditionally focussed on home fire risk checks (HFRCs). This is a free service where we visit households across Buckinghamshire and Milton Keynes to offer home fire safety advice and fit smoke alarms if needed.

However, we only have the capacity to deliver around 8,000 HFRCs per year and there are around 315,000 households across Buckinghamshire and Milton Keynes.

We propose to continue to offer free home fire risk checks and seek to improve the targeting and evaluation of the effectiveness of this service using socio-demographic profiling tools to ensure we reach and help those most at risk.

However, given a growing population and the growth or emergence of other risk factors in the communities we serve we need to find other ways of delivering safety messages and advice to larger numbers of people and to do this in a way that is both effective and economical.

The best way to reach a large numbers of people is to use media channels such as television, radio and the increasingly newer media channels such as ‘Facebook’ and ‘Twitter’. However analysis has shown that different household types tend to experience house fires for different reasons e.g. cooking fires, hair straighteners left on, faulty wiring, overloaded plug sockets, faulty white goods such as washing machines and dishwashers or phone chargers overheating. Our socio-demographic profiling tools enable us to gain better insight into which groups of people are more vulnerable to particular types of fire or other risks. Also different lifestyle groups often favour particular types of media so we can potentially use these insights together to target communications at particular audiences more precisely. An example of this approach is shown bellow and we will be looking to expand this kind of activity over the lifetime of this plan

### *Heart Radio Campaign*

We are currently working with Heart Radio using an innovative blend of socio-demographic analysis with Heart Radio listenership data to tailor Prevention messaging and broadcast them at times when that particular lifestyle group is listening. These listeners will then be directed to our website to pick up their promotion or advice and asked to input their address so that we can cross-reference this against our database to make sure the right life-styles are receiving the right advice. Our website it currently being updated to accommodate this new way of targeting and will be ready later on this year.

# MANAGING FIRE RISK IN COMMERCIAL AND NON-DOMESTIC BUILDINGS

## *Our role*

Buckinghamshire and Milton Keynes contains a large and diverse range of non-domestic buildings and structures. These include offices, factories, warehouses, retail premises, hotels and restaurants, leisure facilities, hospitals, schools, other public buildings, military sites and a range of important National Trust and other heritage sites. The risk factors associated with many of these are identified in our Site Specific Risk Register.

Since October 2006, when the provisions of the [Regulatory Reform \(Fire Safety\) Order 2005](#) (the 'Fire Safety Order') came into effect, responsibility for the identification and management of fire risk in these types of building became the responsibility of the owners or persons in control of them such as employers in places of work. Fire and rescue authorities are now responsible for enforcing the provisions of the Order which confers a range of powers on them including the power to prosecute where other compliance measures have failed.

Ensuring compliance with the Fire Safety Order not only saves lives but also makes a valuable contribution to the health of our economy as in many cases businesses that experience a severe fire go out of business with a consequent loss to the economy in the form of jobs and the impact on customers and suppliers.

## *Our approach*

Our approach to compliance with the Fire Safety Order and to risk reduction generally is constructive and based on proactive and positive engagement with the business community and others with responsibility for the management of fire risk in non-domestic buildings.

Unlike many other fire and rescue authorities we still respond to alarms emanating from automatic fire detection systems. Although our experience shows that over 99% of these are 'false' in that they typically result from a defect in the detection system, or other non fire related cause, they provide an opportunity for us to engage with building managers and offer advice that has helped us reduce numbers of false alarms of this type as well as respond more quickly to genuine incidents thereby reducing risk to life and premises and providing reassurance to businesses and other building owners.

We aim to ensure that public buildings and workplaces are protected from fire risks by promoting ways of making all types of property safer, proactively targeting premises most at risk and, where necessary, enforcing fire safety legislation. In determining our inspection programme, whilst we prioritise in favour of premises that may present a risk to life, we also have regard to the risk to the economy and cases with poor compliance records. Once identified we engage with those responsible for the premises providing risk assessment advice and education. We are also exploring the opportunity to offer business continuity advice and would welcome feedback from the business community on whether they would value this type of support.

### *We are also active in promoting the:*

- use of sprinklers and other fire suppression systems as [research](#) indicates that these valuable means of protecting life, property, the economy and environment are under used in the UK compared with other European countries;
- new 'Primary Authority' scheme which allows businesses with sites in more than one fire and rescue authority area to work with a single fire and rescue authority for the purposes of ensuring compliance with fire safety legislation and regulation. This new scheme is advantageous to businesses as it ensures consistency across the range of fire safety compliance activities as well as a single point of access for advice and guidance.

# WHAT WE PROPOSE TO DO

## *Over the next five years we will:-*

***1/ Systematically change our current approach to managing risks in each of the five catchment areas identified at page 16 of this plan. This will embrace identifying and implementing:***

- the right balance between measures to prevent and protect against risks and residual capacity needed to respond to emergencies;
- the most appropriate crewing models relative to current and expected levels of demand and risk;
- Changes to the number of staff, fire engines and other appliances required to better fit with normal, day to day demand patterns;
- the right number and location for fire stations which may involve moving, merging, closing or co-locating with other blue-light services.

*Our detailed approach to this task is set out overleaf.*

***2/ Identify and implement the level of capacity we need to respond to major local, regional and national emergencies and meet our mutual assistance obligations to neighbouring Brigades.***

This will include consideration of more cost effective ways of quickly generating additional capacity than the current model of maintaining standing resources sufficient to deal with contingencies that we may typically only experience once a year or less frequently.

***3/ Engage and work with our staff and other stakeholders to develop the very best resourcing models for both the service and those that we serve and protect. This will embrace identifying and implementing changes to:***

- staff terms and conditions of employment;
- Crewing models and shift patterns

*Our approach to this is set out at page 22.*

***4/ Continue to develop opportunities to increase the benefits and value that we deliver to the public by using our capacity, resources and assets to meet a wider range of community needs in partnership with others.***

*Our approach to this is set out at page 23.*

***5/ Consider alternative delivery models for some or all of our services. This will embrace consideration of opportunities to deliver services more effectively and efficiently through private sector or employee models of ownership.***

There are precedents for this in both in the UK and overseas. For example:

- the privatisation of the UK helicopter [Search and Rescue Services](#) previously operated by the military;
- in [Denmark](#) fire services have been successfully delivered via private contractual arrangements for many years;
- UK public service employee ownership [models](#).

# REVIEWING THE 'GEO-SPATIAL' DISTRIBUTION OF OUR CAPACITY

*We will change our current operational provision to balance capacity against demand*

*It is evident that there is a **genuine need** to seek alternative ways of delivering front-line services in a more efficient and economical way:*

Analysis identified **three major** response catchment areas: Milton Keynes; South of Aylesbury Vale; and the M40 corridor, as well as **two minor** catchment areas: Buckingham & Winslow and Chesham & Amersham.

*We plan to **change how we manage our response to infrequent events, this will release savings and allow us to focus on getting better trained firefighters to incidents more quickly:***

We propose to start by reviewing one of the **major** (Milton Keynes) and one of the **minor** (Amersham and Chesham) catchment areas.

These reviews aim to identify more **flexible** and **new** ways of delivering front-line services in a more **efficient** and **economical** way.

*Our approach will include a **data-led simulation** followed by a **monitored pilot study:***

These alternative ways will be subject to full risk and impact assessments using **data analysis in a simulated environment.**

This analysis will capture any changes to **speed and weight of response** with a view to understanding, where possible, the likely impact on the **outcomes** *i.e.* injuries, property damage, environmental damage and recovery time or return to normal etc.

Once the most suitable solution has been identified, namely one that **maintains the best possible safety provision for the communities we serve as well as our staff**, *we will consult with you again.*

Once a solution has been **agreed**, we will **implement** those changes.

We will **monitor** the impact of these changes to **detect factors that may not have been captured in the simulated environment.**

To further ensure public and staff safety, we have selected catchment areas at opposite ends of the county to make sure that there is **sufficient back-up** in a neighbouring catchment areas **during the trial period.**

# MODERNISING OUR APPROACH TO RESOURCING FOR EMERGENCIES

*We plan to review our crewing models to ensure they reflect the needs of modern work and lifestyle preferences*

**‘On call’** or ‘Retained Duty System’ firefighters work for us on a part time basis and respond to incidents from their home or main place of work.

Our current on-call crewing model typically requires firefighters to be within five minutes travel-time of the fire station where they are based for an agreed period during the week. This means they need to either live and/or work in close proximity to the fire station. However the modern employment environment means that fewer people live and work in the same location, particularly in rural areas where this form of cover is most appropriate, which makes it difficult for us to attract and retain people to crew appliances using this system during normal working hours as illustrated [earlier](#). We are therefore conducting a review of this crewing model to improve its viability for the future by making it more flexible and attractive to current and prospective on-call firefighters and their employers on whose support we also rely. We will consult these groups as we develop our proposals but, in the meantime, would welcome ideas or feedback from anyone with experience of or an interest in this, or similar, means of providing capacity to deal with emergencies [[hyperlink to consultation questionnaire](#)].

A **‘day-crewed’** firefighter works on a full time basis during the day and responds to personal pagers as an on-call fire-fighter in the evening. The day-shift runs from 9am to 6pm, 7 days per week, using 2 watches working on [rotation](#). Our day-crewed stations include: Gerrards Cross, Amersham, Buckingham and Newport Pagnell.

The day-crew system has been adopted as a **middle-ground** between wholetime and on-call, because:

- [The incident demand isn’t high enough to warrant wholetime cover; and](#)
- [The high property values in these areas seem to exclude professions or lifestyles where people can provide on-call cover during the day](#)

During 2012, a review of crewing arrangements was undertaken and new rotas were designed and agreed at station level, with each station being established to 11 personnel. Since its implementation, the new working pattern has maintained availability, however, due to a number of factors including property prices, they are still experiencing difficulty attracting new staff to work at these stations, which has implications for sustainability at these locations.

The scope of the new review is to consider operational alternatives to safeguard the sustainability and resilience of maintaining effective operational cover for the communities in these areas.

# USING OUR CAPACITY & RESOURCES IN DIFFERENT WAYS TO SAVE MORE LIVES AND BENEFIT THE COMMUNITY

## Working with the ambulance service

The review of the fire and rescue service carried out by Sir Ken Knight identified improved collaboration with other blue light services and, in particular, the provision of support to the ambulance service via schemes such as ‘co-responder’ as being among the ways in which fire and rescue services can make more efficient use of their capacity and improve their value to the public.

We have been operating a co-responding service in partnership with South Central Ambulance Service from Great Missenden Fire Station since June 2011. We have since extended this trial to Amersham/Chesham, High Wycombe and Marlow fire stations. We know from our consultation that the public value this kind of collaboration and we will therefore be looking for opportunities to further develop and expand this service into other areas. In this regard we would welcome further feedback in relation to our using our capacity and resources in this way [hyperlink to consultation questionnaire].

**South Central Ambulance Service (SCAS)** cover Buckinghamshire and Milton Keynes.

- They are required to meet Category A (immediately life-threatening) calls within 8 minutes on 80% of occasions.
- There are some areas where the incident demand places great pressure on their capacity to respond within their target timescales.
- A proportion of the SCAS workforce is voluntary, which also makes it challenging to manage the capacity of their workforce.

*Co-responders are specially-trained firefighters who are dispatched by the SCAS Emergency Operations Centre to a range of medical emergencies to provide life-saving treatment and care to patients before an ambulance arrives on scene.*



*Co-responding has been running from Great Missenden Fire Station since June 2011, and is now being trialled at Amersham/Chesham, High Wycombe and Marlow, initially until 31 May 2014.*

**Buckinghamshire Fire and Rescue Service (BFRS)**

- BFRS have 600 crew members who are professionally trained to deal with emergency situations and are reliably available when needed.
- Our crew possess 80% of the core-skills necessary to respond to a Category A calls as part of their regular training. It is possible to integrate the additional 20% of skills into the annual training program.
- BFRS have stations and crew in the locations where SCAS face significant challenges in meeting the demand for emergency response.

## Getting the most out of our assets

### Mobile phone aerials on our drill towers

We host aerials on behalf of major mobile phone network providers, which raises £192k per year, but this might diminish in light of advances in aerial technology, opening-up new locations for providers, diminishing the value of ours.

### Refuel tanks

If you go to a forecourt and put diesel in your car when it is supposed to take petrol, the AA or RAC will come and remove it, but they need somewhere to dispose of it safely, this is what re-fuel tanks are for. We have one located in Milton Keynes and it generates £5.5k per year.

### Renting office space to other agencies

We currently rent space to the Meteorological Office, Thames Valley Police, South Central Ambulance, British Transport Police and are considering working with the Highways Agency. This provides them with good logistical locations and facilitates good cross agency working relationships.

### Solar panels on roofs

We have solar panels on some of our roofs, work is being undertaken to demonstrate the savings this makes relative to using mains electricity.

