

Buckinghamshire & Milton Keynes Fire Authority



MEETING	Fire Authority
DATE OF MEETING	13 June 2018
OFFICER	Neil Boustred, Head of Service Delivery
LEAD MEMBER	Councillor Jean Teesdale
SUBJECT OF THE REPORT	Update on the Fire Authority's financial support for sprinkler installation
EXECUTIVE SUMMARY	<p>This information paper has been requested by Members of the Fire Authority, with the purpose of providing an update on progress made since its decision, taken in 2016, to offer financial assistance to organisations considering installing sprinklers in domestic premises where the occupants are those who are most at risk from fire. The Authority decided to allocate a maximum sum of £250k from reserves to act as match-funding to promote sprinkler installation for projects across Buckinghamshire and Milton Keynes. Since that innovative decision was taken, officers have attempted to overcome a number of obstacles (Appendix 1) including: a belief that sprinklers are unsightly; are financially prohibitive to retro install; and cause large amounts of costly water damage. A number of different approaches (Appendix 2) have been taken to achieve this objective. Whilst this Service supports sprinkler installation in commercial premises, this initiative was aimed at those domestic premises where the occupants are those most at risk from fire.</p> <p>Despite these efforts, there has been no request for joint-funding. Whilst this is disappointing, it is by no means the end of this initiative. Sprinklers remain important for fire safety; capable of maintaining safety for the public and firefighters. Continuing the various approaches will ensure the subject of sprinklers remains visible amongst housing providers, building designers and all those involved in promoting community safety. This approach of educating the public may well be supported by a regulatory change following the Grenfell Tower incident.</p> <p>Head of Service Development Julian Parsons represents Buckinghamshire Fire and Rescue Service (BFRS) on the Executive Committee of the National Fire Sprinkler Network. He also has a key role supporting the National Fire Chiefs Council (NFCC) in developing policy. This ensures officers remain updated on progress and innovative means of water</p>

	<p>suppression technologies, ensuring that this Authority can influence the national strategic direction.</p> <p>In their article released 25 April 2018, the NFCC responds to news articles about cladding tests 'failing to properly assess risk'</p> <p>The NFCC stated that 'An effective part of an overall fire safety solution to improve fire safety in a range of new and existing buildings are the inclusion of sprinkler systems.</p> <p>The NFCC supports the concept of risk assessed retrofitting of sprinklers in existing buildings and welcomes the prioritisation of a review of the Building Regulations (Approved Document B) to ensure fire safety requirements keep pace with new building developments.</p>
ACTION	Noting
RECOMMENDATIONS	That the content of the update be noted.
RISK MANAGEMENT	<p>The promotion of sprinkler installations is detailed within the Corporate Plan. Sprinklers mitigate fires developing and so improve public and firefighter safety.</p> <p>Sprinklers are a part of the suite of fire safety tools used by the Fire and Rescue Service and should be seen as part of that wider approach. Education is the primary source of prevention, with fire safety taught as part of the national curriculum to all school children. This helps people to identify the best ways to stop fire happening and also gives them the information required to create their own escape plans. Smoke detectors do not prevent fires from happening but give an early warning to occupants that there is a fire and they need to escape. Where people are unable to respond to a smoke alarm, sprinklers may be the most suitable means of fire safety. The installation of mobile or fixed sprinkler systems should always be part of a wider risk assessment.</p>
FINANCIAL IMPLICATIONS	<p>In total £500,000 has been allocated to this initiative, comprising of £250,000 in 2016-17 and £250,000 in 2017-18.</p> <p>To date, £10,000 has been utilised to support the continued use of portable domestic sprinklers. £120,000 has been earmarked for the provision of sprinklers throughout the MK Blue Light Hub.</p> <p>This therefore leaves £370,000 in a reserve that can be used to provide match funding to promote sprinkler installation.</p>
LEGAL IMPLICATIONS	None identified at this stage.

<p>CONSISTENCY WITH THE PRINCIPLES OF THE DUTY TO COLLABORATE</p>	<p>The Prevention and Protection Strategies employed by all Thames Valley Fire & Rescue Services are continuously reviewed, and opportunities to collaborate are sought. The approach adopted by this Service towards sprinkler promotion does not preclude future collaboration.</p>
<p>HEALTH AND SAFETY</p>	<p>Sprinkler system installation supports public safety as well as firefighter safety. Fires which start in premises with sprinklers are far less likely to develop and so the risk to firefighters will be reduced when dealing with such incidents.</p>
<p>EQUALITY AND DIVERSITY</p>	<p>None identified at this stage.</p>
<p>USE OF RESOURCES</p>	<p>The installation of sprinklers has the potential to reduce Service resource requirements at operational incidents. Fires within sprinklered-buildings are far less likely to develop and will require fewer resources to fully extinguish.</p> <p>This will have a beneficial effect on the environment as there will be less impact from the fire and the potentially damaging products of combustion.</p> <p>The Service has invested staff time to promote the installation of sprinkler systems in a variety of ways. Fire Authority Members have been kept informed on progress with regular papers.</p>
<p>PROVENANCE SECTION & BACKGROUND PAPERS</p>	<p>Background</p> <p>Prevention Strategy 2014/15 to 2019/20 http://bucksfire.gov.uk/files/5014/0292/6321/PreventionStrategy201415.pdf</p> <p>Fire Authority Paper – Update on Sprinklers http://bucksfire.gov.uk/files/2615/0816/2983/ITEM_1_1_Update_on_Sprinklers.pdf</p>
<p>APPENDICES</p>	<p>Appendix 1 – Obstacles to Sprinkler Installation Appendix 2 – Sprinkler Initiatives</p>
<p>TIME REQUIRED</p>	<p>10 minutes</p>
<p>REPORT ORIGINATOR AND CONTACT</p>	<p>Phillip Mould, Community and Business Safety Policy pmould@bucksfire.gov.uk 07786 747712</p>

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Obstacles to Sprinkler Installation

1. Myths around sprinklers

Water damage -There is a perception that sprinklers can cause high levels of costly water damage should there be a false activation. Officers explain how sprinklers operate and how each sprinkler head is designed and calibrated to activate only during the heat from a fire. They do not operate in response to smoke, burned toast, cooking vapours, steam, or an activating smoke alarm. Sprinkler systems are evolving all the time and many sprinklers are now able to cease once a temperature drop has been noted; they will not necessarily operate continuously until manually stopped. Officers also explain that any water damage from sprinklers in controlling a fire, will be far less than the amount of water used by the Fire & Rescue Service in extinguishing a developed fire.

Sprinklers are unsightly – Some people believe that sprinkler heads are unsightly and are not aesthetically pleasing for the occupier. In fact sprinkler heads can be recessed and housed within the ceiling, and are not readily identifiable.

Sprinklers are for property protection, not life safety – According to statistics from the American Fire Sprinklers Association, where domestic sprinklers are far more common than in the UK, sprinklers provide a high level of life safety. Statistics reveal that there has never been any multiple loss of life in a fully sprinklered building. Property losses are 85% less in residences with fire sprinklers compared to those without sprinklers. The combination of automatic sprinklers and early warning systems in all buildings could reduce overall injuries, loss of life and property damage by at least 50%.

Smoke detectors provide sufficient protection - Smoke detectors save lives by providing an early warning to a smoke or fire incident, but can do nothing to extinguish a growing fire or protect those physically unable to escape on their own, such as the elderly or small children. Too often, battery-operated smoke detectors fail to function because the batteries are dead or have been removed.

2. Cost of installation / maintenance

Whilst promoting sprinklers to housing providers, it is evident that there is a belief that fitting sprinklers in new builds or retro-fitting them into existing buildings is financially prohibitive. Much time has been spent by officers explaining that to fit sprinklers in new buildings costs approximately the same as installing the central heating system into the same premises. Whilst retro-fitting is more expensive and disruptive, it is possible to achieve this aligned with ongoing building maintenance. Officers also explain that sprinkler installation can be in specific areas or rooms to mitigate against the risk of fire; if those at highest risk from fire only occupy certain rooms, there would be no necessity to install sprinklers throughout the premises.

3. Implications of the Grenfell Tower fire incident

Officers had reached a point where a number of housing providers were strongly considering requesting financial support for sprinkler installation. This changed following the Grenfell Tower fire in June 2017. There is an anticipation that the tragic and significant fire will result in fundamental changes to building regulations and the subsequent requirements for sprinkler systems. Many providers are now waiting for the review to be finalised so that any regulatory requirements are fully understood before installing sprinklers.

Sprinkler Initiatives

Strategic

- *National support*

Officers work closely with national bodies such as the British Automatic Sprinkler Association (of which BFRS is a member) and the Head of Service Development represents this Service on the Executive Committee of the National Fire Sprinkler Network. This allows officers to remain updated on progress and innovative means of water suppression technologies and ensures this Authority can influence the national strategic direction. This Service is also active in supporting research used to evidence the effectiveness of sprinklers. This organisation has previously organised demonstrations to prove the effectiveness of sprinklers and to dispel some common myths and misunderstandings relating to sprinklers.

The Head of Service Development also has a key role supporting the National Fire Chiefs Council (NFCC) in developing policy. He authored the NFCC's [position statements](#) on [sprinklers](#) and specifically [sprinklers in schools](#).

He also led on a project to commission independent research into the efficiency and effectiveness of sprinklers in the United Kingdom. This report was published in April 2017. The full report can be read [here](#).

The research discovered that sprinklers are operationally reliable on 94% of occasions and 99% effective when they operate. As well as being submitted as evidence to the Dame Judith Hackett review, this research is now being reported globally. The Head of Service Development has been invited, and funded by them, to present the research to the International Fire Sprinkler Association global conference in Stockholm on the 15th June 2018.

- *Briefings to MPs and local politicians*

Following the Grenfell Tower incident, briefings were held with MPs and local politicians to outline this Service's response to that tragic fire. During these briefings, the match-funding initiative was discussed to communicate this approach as widely as possible.

Tactical

- *Conferences*

This Service has hosted two national conferences to support fire safety, with a focus on sprinklers. The first conference was in January 2017 at the Waterside Theatre where a number of private and public sector housing providers attended to discuss sprinkler installation within domestic premises. This resulted in many ongoing discussions following the event and helped officers understand the obstacles to overcome.

The second conference was held in Aylesbury in May 2017, where BFRS provided the venue for a national Passive Fire Safety Conference. Whilst most

of the conference speakers discussed different types of fire safety technology, the Deputy Chief Fire Officer opened the event and addressed the advantages of sprinkler installation, and the Authority's stance on potential match-funding.

Following the conference, an officer attended the Butler & Young national conference to discuss fire safety, with a national company which designs buildings and ensures their legislative compliance. Since building control arrangements became a more competitive market some years ago, a number of approved inspectors undertake this function for their clients. This was an opportunity to explain to that influential group how sprinkler installation can be an attractive option, in domestic and commercial premises.

- *Building consultations*

Whenever officers are consulted on new and amended building designs, the opportunity is taken to discuss the potential advantages of sprinkler installation. In the past, this was discussed at every single consultation. However, officers now assess the risk and benefits of each proposal to see if sprinklers could provide increased safety in terms of the overall fire safety arrangements.

- *Mobile sprinkler installation*

Officers appreciate that sprinkler installation is balanced against risk; often the person, or people, at most risk would benefit from sprinklers, whilst they would add limited safety value to the remainder of the building. It is therefore appropriate for mobile sprinklers to be used where it would be cost prohibitive for sprinklers to be installed. Mobile sprinklers can be installed to address a high level of risk, usually where the person is non-ambulant and would not be able to respond to a smoke detector activation.

- *Social housing providers*

Much time has been spent in discussions with a number of social housing providers, especially in terms of specialised housing, such as sheltered housing, where occupants are non-ambulant and would not be able to escape unaided. Progress was being made, with costs being sought for those premises where occupants were at highest risk from fire. Following the Grenfell Tower incident, the providers decided to wait for the outcomes of any regulatory review before committing funding to sprinkler projects.

Operational

- *Ongoing awareness*

All Service staff are aware of the importance of domestic sprinklers to support life safety. Whether crews are conducting a Safe & Well visit, or are discussing fire safety with housing providers at incidents, those opportunities are used to promote the installation of sprinklers.

Fire Authority Members have been encouraged to support sprinkler installation and information on sprinklers is regularly requested and recommended for new Members at Fire Authority meetings.

- *Blue Light Hub*

Update on the Fire Authority's financial support for sprinkler installation

The Blue Light Hub will be innovative in a number of ways. One such innovation will be that this will be the first building in the Service which is completely covered by sprinklers. This demonstrates this Service's commitment to sprinklers and is intended to act as a 'beacon'; an example of how this Service is at the forefront of delivering exemplary fire safety systems in its premises.