Proposed Social Housing (Automatic Fire Suppression Systems) (Scotland) Bill

A proposal for a Bill to require Scottish Social Housing to be fitted with Fire Suppression Systems

Consultation by David Stewart, MSP for the Highlands and Islands January 2018
The necessity for robust fire safety measures in Scotland cannot be understated. Although the frequency of fires has been decreasing over the past decades, compared to the rest of the United Kingdom (UK), Scotland has consistently had a higher number of fires, as well as fire deaths, injuries, and damage. The tragic events of the Grenfell Tower disaster last summer are a stark reminder of the devastating effects that fire can have for both individuals and communities. It is therefore crucial that we heed the warning and continually review and enhance our approach to fire safety. The strength of our existing measures should never be taken for granted.

When it comes to fire safety it is true that there is no ‘fix all’ approach. Nevertheless, I believe that fire sprinklers are an important tool that hold much life-saving potential. Installing fire sprinklers (automatic fire suppression systems) into homes is a proven method of preventing the spread of fires and limiting the death and damage that fire can cause. New domestic high rises and residential care buildings are already required to have sprinkler systems installed, thanks to the efforts of the Labour-led executive in passing the Building (Scotland) Act 2003, which received cross-party support. However, I believe that these requirements can, and should, go further.

There are many strategies that can be used to tackle the causes of fires. There is also much that can be achieved by taking a holistic approach that includes the use of education and safety checks by the Scottish Fire and Rescue Service. However, there is always a limit to what this can achieve; it is inevitable that some outbreaks of fire will always occur. In these situations, sprinklers are an extremely effective method of saving lives and limiting the lasting damaged caused.

With this in mind, it is important to note that in Scotland fires are disproportionately more prevalent in more deprived areas. Yet, there have been no instances of multiple fire death where a working sprinkler system was in place. My proposal is therefore to require the installation of sprinkler systems into all new-build social housing across Scotland. The idea is not new; some Scottish councils have already committed to this
approach as policy. Previous research, commissioned by the Scottish Government, has also recommended such a targeted installation on the basis of pure cost-benefit.

Furthermore, I believe that, in light of the Grenfell disaster, and the existing discrepancy between pre and post-2005 high rises regarding sprinkler systems, there may also be a case for requiring the retrofitting of sprinklers into such existing social housing stock. When considering the use of sprinkler systems, I therefore also wish to take the opportunity to consult on the issues surrounding retrofitting in high-rise social housing stock, as this could potentially be included in the Bill, along with requirements for new homes.

I am aware that in response to Grenfell a Scottish Ministerial Working Group has been set up to review current building and fire safety frameworks, which also includes the use of sprinklers within its remit. I welcome the activity of this group but should they decide not to recommend increased installation of sprinklers, or if the Scottish Government decides not to legislate, I wish to be in a position to bring forward a Member’s Bill. This is why I am consulting on the proposal now.

Although my proposal will not solve all the difficulties faced in the fight to reduce fire deaths, I believe that it is certainly a step in the right direction. In truth, discussions around the challenges of retrofitting would not be necessary if sprinklers had been installed when social housing was first built. Installing sprinklers in social housing is a both a targeted method for lowering Scotland’s unacceptably high fire statistics, as well as an investment in the safety of housing across Scotland well into the future.

David Stewart MSP
16 January 2018
HOW THE CONSULTATION PROCESS WORKS

This consultation relates to a draft proposal I have lodged as the first stage in the process of introducing a Member’s Bill in the Scottish Parliament. The process is governed by Chapter 9, Rule 9.14, of the Parliament’s Standing Orders which can be found on the Parliament’s website at:

http://www.scottish.parliament.uk/parliamentarybusiness/17797.aspx

At the end of the consultation period, all the responses will be analysed. I then expect to lodge a final proposal in the Parliament along with a summary of those responses. If that final proposal secures the support of at least 18 other MSPs from at least half of the political parties or groups represented in the Parliamentary Bureau, and the Scottish Government does not indicate that it intends to legislate in the area in question, I will then have the right to introduce a Member’s Bill. A number of months may be required to finalise the Bill and related documentation. Once introduced, a Member’s Bill follows a 3-stage scrutiny process, during which it may be amended or rejected outright. If it is passed at the end of the process, it becomes an Act.

At this stage, therefore, there is no Bill, only a draft proposal for the legislation.

The purpose of this consultation is to provide a range of views on the subject matter of the proposed Bill, highlighting potential problems, suggesting improvements, and generally refining and developing the policy. Consultation, when done well, can play an important part in ensuring that legislation is fit for purpose.

The consultation process is being supported by the Scottish Parliament’s Non-Government Bills Unit (NGBU) and will therefore comply with the Unit’s good practice criteria. NGBU will also analyse and provide an impartial summary of the responses received.

Details on how to respond to this consultation are provided at the end of the document.

Additional copies of this paper can be requested by contacting me at:

David Stewart MSP, MG.05, Scottish Parliament, EH99 1SP
0131 348 5766
David.Stewart.msp@parliament.scot

Enquiries about obtaining the consultation document in any language other than English or in alternative formats should also be sent to me.

An on-line copy is available on the Scottish Parliament’s website (www.parliament.scot) under Parliamentary Business / Bills / Proposals for Members’ Bills.
AIM OF THE PROPOSED BILL

The proposed Bill aims to improve fire safety across Scotland and reduce the numbers of fire fatalities and injuries in some of the most socially deprived areas where a significant amount of social housing\(^1\) is located. To achieve this, the proposed Bill would require all new-build social housing to include the installation of a fire suppression (“sprinkler”) system, and possibly require the retrofitting of fire suppression systems into existing high-rise social housing stock.

INTRODUCTION AND BACKGROUND

Events of Summer 2017

On 14 June 2017, a fire engulfed Grenfell Tower, a residential tower block in the London Borough of Kensington and Chelsea, causing 71 deaths\(^2\). In the aftermath concerns were raised across the country about fire safety in high-rise residential buildings. While much of the focus has been on the combustibility of the cladding that surrounded the building, questions have also been raised about whether other fire safety measures that could have prevented the spread of the fire had been neglected.

Following the tragedy, a number of investigations have been set up to examine existing fire safety measures. In Scotland, a Ministerial Working Group on Building and Fire Safety was established with the remit of reviewing building and fire safety regulatory frameworks. In addition, in June 2017 the Scottish Parliament’s Local Government and Communities Committee widened its scrutiny of building regulations to include a review of the fire safety aspects involved. Both of these reviews have focused initially on the cladding of buildings but have also taken evidence about additional safety measures, including the use of fire suppression systems.

Fire Statistics in Scotland

In the past decade, across Scotland, there has been a general downward trend in both the number of dwelling fires and the number of fatalities, in line with statistics for other United Kingdom (UK) nations. For example, compared to 2006-07, the number of dwelling fires in Scotland in 2015-16 had fallen by 18.5\(^3\). Nevertheless, despite similar levels of reduction, Scotland, prior to the Grenfell disaster, consistently reported a higher number of fire deaths than the rest of the UK. Between 2001-2007 there were approximately 50% more dwelling fires per 100,000 people in Scotland than there were

\(^1\) “Social housing” in this context includes housing owned and managed by public authorities (predominantly local authorities) and housing associations (registered social housing landlords (RSLs)).
in England\textsuperscript{4}. Although in 2013-2014 the numbers started to level off, Scottish fatalities in domestic fires were still 12\% above the English figure\textsuperscript{5}.

More recently, in 2015-16, there were 5,673 dwelling fires across Scotland, almost 46\% more per million people than in England and Wales\textsuperscript{6}. In Scotland there were 39 dwelling fire fatalities (8.4 per million compared to 5.5 in England\textsuperscript{7}) and 1,045 non-fatal casualties. Although the fire fatalities rate can be a volatile measure due to the relatively small numbers involved, there remains a clear trend of higher Scottish statistics than elsewhere in the UK.

This may in part be explained by the fact that the prevalence of fires is not equal across society. In 2009 the \textit{Scotland Together} report, noting that Scotland was relatively more deprived than the rest of the UK, found that the risk of fire, and thus the risk of fire deaths, injuries and damage, was higher in areas of socio-economic deprivation. Higher fire risks were also associated with the type of household (older people and those living alone), as well as the type of dwelling, with the risks being higher in social housing and flatted properties generally. Evidence from the 2009 Fire Fatal Survey found that, despite only constituting approximately 25\% all Scottish dwellings\textsuperscript{8}, social rented housing accounted for 40\% of all accidental dwelling fire deaths \textsuperscript{9}. Hence, Scotland’s higher frequency of fire outbreaks is also disproportionally carried by some of her most vulnerable populations. In fact, the \textit{Scotland Together} report found that 31\% of all accidental dwelling fires occurred in the Scottish Index of Multiple Deprivation’s 15\% most deprived areas.

\textbf{Fire Suppression Systems}

One method of addressing the high prevalence of fires and fire damage across Scotland is through the use of automatic fire suppression (“sprinkler”) systems. There have been no multiple fire deaths in Scotland where a sprinkler system has been installed\textsuperscript{10} and was operational.

Fire suppression systems are primarily designed for life safety purposes; they are fitted to buildings with the aim of containing the internal spread of a fire, thereby allowing building occupants time to evacuate and potentially also minimising the eventual property damage. Although sprinklers do not necessarily extinguish a fire or prevent the

\begin{itemize}
  \item \textsuperscript{4} \textit{Scotland Together: A Study Examining fire deaths and injuries in Scotland}, 2009. Available at: \url{www.cfoa.org.uk/download/15674}
  \item \textsuperscript{5} Optimal Economics, \textit{"Research Project to Review the Costs Effectiveness of Sprinklers in Residential Properties"}, May 2015. Available at: \url{http://www.gov.scot/Resource/0047/00477895.pdf}
  \item \textsuperscript{6} UK Government Home Office, \textit{Fire Statistics data tables (Calculated from FIRE0201)}, Available at: \url{https://www.gov.uk/government/statistical-data-sets/fire-statistics-data-tables}
  \item \textsuperscript{7} Fire and Rescue Incident Statistics Scotland 2015/16 \url{http://www.firescotland.gov.uk/media/1009443/fire_and_rescue_statistics_scotland_2015_16.pdf}
  \item \textsuperscript{8} Scottish Government, \textit{"Housing Statistics for Scotland"}, 2016. Available at: \url{http://www.gov.scot/Topics/Statistics/Browse/Housing-Regeneration/HSfS/KeyInfoTables}
  \item \textsuperscript{9} \textit{Scotland Together: A Study Examining fire deaths and injuries in Scotland}, 2009. Available at: \url{www.cfoa.org.uk/download/15674}
  \item \textsuperscript{10} BBC News, \textit{"Effect of sprinklers in fire safety in Scotland’s tower blocks"}, September 2017: \url{http://www.bbc.co.uk/news/uk-scotland-41258411} 
\end{itemize}
spread of smoke, they can dilute levels of smoke toxicity. Automatic systems are heat rather than smoke sensitive and each sprinkler activates individually once the critical temperature has been reached. Fire suppression systems can come in a variety of forms and include mains fed, tanked supply, and misting systems.

Existing Scottish Regulations
Currently, in Scotland, Building Regulations\(^{11}\) require a number of fire safety measures. The installation of fire suppression systems is not required in residential buildings unless they are over 18m in height and therefore classed as ‘high-rise’, or if they comprise part of a sheltered housing or care home complex. To allow adequate time for occupants to escape on the outbreak of a fire, automatic fire suppression systems are also required for some dwellings that have an open plan layout, depending on the location of the kitchen and the overall height of the building. These requirements also only apply to housing of the nature described above built after the regulations came into force; there is no obligation to retrofit. Thus, all social housing within high-rises built before 2005 still conform to building standards even if they do not have a fire suppression system installed.

Where fire suppression systems are required by building standards, they currently must be designed and installed in accordance with the British technical standard BS 9251:2005, regardless of the height of the building\(^{12}\).

School buildings are also required to have fire suppression systems installed. However, this is primarily for the purposes of asset protection rather than life safety. As such, and because these buildings are not normally classed as “dwellings”, a different technical standard applies.

The Case for Fire Suppression Systems in Social Housing
A number of studies and independent bodies have advocated wider use of automatic fire suppression systems in residential properties as a method of combating the extent of fire death and damage in Scotland. The Scotland Together report noted that the professional opinion of reporting Fire Officers in the Fatal Fires Survey was that the use of sprinkler systems could have saved almost 80% of all the fire deaths in accidental dwelling fires. Since 2009, the Fire Brigades Union (FBU) has recommended to the Scottish Government that sprinklers should be fitted into all Scottish housing stock. In evidence to the Local Government and Communities Committee in September 2017, the FBU repeated the plea, suggesting that:

“… had a residential sprinkler system been fitted to Grenfell Tower, the initial fire that spread from a fourth floor kitchen to ignite the cladding would never have got beyond the fridge in which it started.”\(^{13}\)

---


Various reports have made attempts to assess the effectiveness of sprinkler systems. In 2004 the Building Research Establishment estimated that sprinklers were 70% effective at preventing death, 30% effective for preventing injury and 50% effective for preventing damage\textsuperscript{14}. However, these figures have since been criticised for being too low and subsequent studies from the past decade have put the range at 90-100% for preventing death; 51%-73% for preventing injury; and 75-93% for preventing damage\textsuperscript{15}. The most recent report, published in May 2017 and commissioned by the National Fire Chiefs Council and National Fire Sprinkler Networks in England, found that across all building types, when activated, sprinkler systems had a performance effectiveness of 99%. Across the study, the sprinkler system actually extinguished the fire in 37% of all incidents, while in 62% the fire was at least contained and controlled. Operational reliability was concluded to be 94%. In addition, dwelling fires with an activated sprinkler system had an average area of fire damage of less than 4m\textsuperscript{2}, compared to an average of 18-21m\textsuperscript{2} for dwelling fires generally\textsuperscript{16}.

In 2015, the Scottish Government commissioned a cost/benefit analysis of installing sprinkler systems across residential properties in Scotland. Initially the report noted that:

\textit{“The evidence indicates that most of these [Scottish] deaths and injuries and much of the damage would have been prevented had the properties concerned been fitted with sprinklers.”}\textsuperscript{17}

Overall the report concluded that the installation of sprinklers into houses would not be cost effective and that there would be very small benefit to installing sprinklers into flats. Yet, taking into account the higher prevalence of fires in more deprived areas and the disproportionate effects on certain groups within the community, the report also noted that the targeted installation of sprinklers would likely be cost effective. When the fire risk was doubled, as the Scotland Together report suggested is the case for more socially deprived areas, there was a “very strong case” for installing sprinklers in new (and in existing) flats\textsuperscript{18}. The report concludes with the suggestion that an appropriate response would be to require sprinklers in social housing, or specifically social flatted accommodation, as social landlords are likely to be the main housing providers in deprived areas. Nevertheless, despite the report being published in 2015, no such national response has been implemented.


\textsuperscript{18}Ibid
Approaches in Other Jurisdictions

Across the UK there is a variety of approaches to the use of fire suppression systems. English regulations are the least prescriptive with sprinkler systems only required in new high-rise dwellings over 30 metres. Nevertheless, in the wake of the Grenfell tragedy there have been renewed calls for sprinklers to be retrofitted into tower blocks and, thus far, at least South Tyneside\(^{19}\), Sheffield\(^{20}\), Birmingham\(^{21}\), Wandsworth, and Croydon\(^{22}\) councils have committed to installing sprinklers in all of their high-rise stock.

The Building (Scotland) Regulations 2004 may require slightly more than the equivalent English regulations but they are far from the most robust. The Domestic Fire Safety (Wales) Measure 2011\(^{23}\) was passed by the Welsh Assembly requiring the installation of fire suppression systems into all new-build and converted residential properties, regardless of height. The new regulations created under the measure\(^{24}\) came into force in two stages to allow the building industry time to prepare:

- From 30 April 2014 fire suppression systems were required in new and converted Welsh care homes, children's residential homes, halls of residence, boarding houses and hostels, as well as hostels used for temporary accommodation for leisure purposes; and
- From 1 January 2016 fire suppression systems were required in all new and converted Welsh houses and flats.

Despite not being required to do so, a number of local authorities across Scotland have taken steps regarding the use of fire suppression systems, prior to the Grenfell tragedy. Since 2009\(^{25}\), Angus Council has fitted sprinklers into all new-build council housing, resulting in over 200 properties having fire suppression systems installed. Sprinkler systems have also been retrofitted into existing building stock across Angus when refurbishment or re-modelling work has been carried out. However, Angus Council is not alone. In 2010 Fife Council\(^{26}\) also decided to install sprinklers into all of its new council housing.

---

\(^{19}\) BBC News, “Tyneside Council fits £1.4m sprinklers as ‘reassurance’”, October 2017: http://www.bbc.co.uk/news/uk-england-tyne-41621253


\(^{22}\) BBC News, “Grenfell contractor: Sprinklers would have saved tower”, September 2017: http://www.bbc.co.uk/news/uk-england-london-41230521


\(^{24}\) http://www.legislation.gov.uk/wsi/2013/2730/contents/made


social housing and, as of February 2017, Dundee City Council has adopted a similar policy.27

DETAIL OF THE PROPOSED BILL

What the Bill will do
While the form of the legislation will be determined at a later stage, a possible mechanism would be for the proposed Bill to amend the Building (Scotland) Regulations 2004 so that any new building that is intended for use as residential social housing is included within the list of buildings required to have a fire suppression system installed. Although the precise detail of how this is addressed would need to be examined, it is envisaged that the resulting legislation will place an obligation on all local authorities and Registered Social Landlords (RSLs) to have fire suppression systems installed in all new housing developments that they commission.

The Bill will not place any requirement on social landlords as to the type of fire suppression systems they use. It is anticipated that any technical specification will be left to Scottish Ministers to determine if they so wish in the future.

Retrofitting
Although the proposals for new-builds would ensure the safety of new housing developments and social housing into the future, there would remain a legacy of social housing without sprinkler systems which was built before existing regulations came into force. In particular, high-rise developments are considered to pose particular risks due to limited safe evacuation routes. There are estimated to be at least 319 high-rise buildings in Scotland which are owned by social landlords and do not have sprinkler systems installed. Consequently, the opportunity is being taken, through this consultation process, to explore the possibility of the Bill also imposing an obligation on the owners of social housing located in high-rise residential buildings to retrofit fire suppression systems.

Retrofitting systems can be more complex than merely including systems into the construction of a new build. Installations have to take into account the existing structure and this can increase the costs, as outlined below. In addition, some high-rises may have a combination of owner-occupied and socially rented flats. Fitting sprinkler systems into the whole building may not therefore be possible but failing to do so has the potential to compromise any system’s effectiveness.

Notwithstanding these added complications, I wish to consult on both the first obligation to include fire suppression systems into new-build social housing, as well the possibility of, and challenges related to, retrofitting into existing socially rented homes located in high-rise buildings.

27 Shanks, C. “Sprinklers to be installed in new Dundee homes”, February 2017: https://www.eveningtelegraph.co.uk/fp/sprinklers-installed-new-dundee-homes/
Potential Impact of the Bill

Local Authorities and RSLs
The Bill will obviously have implications for social landlords who own and manage social housing. Build costs are likely to increase, as discussed below. Nevertheless, despite the related costs, the Bill will also lead to reduced levels of damage done to properties owned by social landlords due to fire. It is therefore expected that insurance premiums should reduce and budget and staff time previously used for restoring property in the aftermath of the fire will be freed up to use elsewhere.

In addition, social landlords will be afforded as much flexibility as possible as the Bill will not include specifications as to the type of fire suppression system that should be used. Local authorities and RSLs will therefore be able to determine for themselves the best approach for each unique area.

The intention is also to include a substantial lead in period to enable social landlords to financially plan for the change. Building work on developments approved prior to the Bill’s commencement date should therefore not be hindered or delayed.

Social Housing Tenants
The Bill will also impact on the individuals and families who live in social housing as they will receive enhanced protection should a fire unfortunately occur. Sprinkler systems will give occupants extra time to evacuate safely and minimise the damage done to their belongings. The requirements of the Bill will give social tenants the peace of mind, especially following the Grenfell Disaster, that in Scotland all possible precautions have been taken to protect them.

IMPLICATIONS OF THE BILL

Financial Implications
The costs related to the installation and use of fire suppression systems fall under three main categories: build/installation costs, water supply costs and ongoing maintenance costs. Installation and water supply costs will be incorporated into the build costs for new projects and it is expected that these should constitute no more than an additional 1-4% of the overall new build costs. The Scottish Government currently provides subsidy grant funding to support the development of socially rented housing and homes for mid-market rent through their Affordable Housing Supply Programme. Throughout the life of this Parliament, the Government has committed to supporting the building of 50,000 new homes, of which at least 35,000 are intended to be for social rent.

However, should the additional costs for sprinklers fall to the local authorities and RSLs commissioning new social housing there is a risk that the increased costs could impact

29 Calculated based on the costs outlined below and an average of £120k (2014/15) build cost for RSLs from SPICe Briefing, Housing Supply Budget 16/49, available at:
http://www.parliament.scot/ResearchBriefingsAndFactsheets/S5/SB_16-49_Housing_Supply_Budget.pdf
on the eventual affordability of rent levels or reduce the available funding for future maintenance and improvement works.

As such, it is expected that additional funding from the Scottish Government will be necessary, especially if it does not want to reduce the home building targets to which it has already committed. Although this may mean costs not originally budgeted for, funding the installation of sprinklers will mean that the Scottish Government is ensuring that the homes it is supporting to develop are as safe as possible, both now and into the future.

The extent of sprinkler system costs can vary depending on the type of building; the type of system; the scale of the project; and whether sprinklers are being retrofitted or included as part of new-build development. As local authorities and RSLs are best placed to determine which system best suits their housing stock and new developments, the proposed Bill would not prescribe a certain type of system over any other. This should also allow local authorities and RSLs a degree of flexibility concerning the overall costs involved. An outline of the average expected costs is set out below. However, it is expected that, after the implementation of the proposed Bill, increased demand is likely to increase competition in the industry and thereby reduce the unit costs involved.

**Installation Costs**

There can be much debate about the installation costs of sprinkler systems, with unit estimates for flats and housing ranging from £620 to almost £5,000. The most reliable guides are therefore the actual costs incurred by local authorities that have already started to undertake installation work.

The Scottish Government's 2015 cost-benefit analysis\(^{31}\) listed the costs incurred by both Fife and Angus councils in installing sprinkler systems to new-build housing. The exact figures can be found in the report (cited below) but the average unit price for installation was as follows:

- Mains fed systems: £1,734 (Fife) £2,553 (Angus)
- Tank and pump systems: £4,845 (Fife)
- Misting systems £1,480.50 (Angus)

The costs can also vary depending on the type of building as the cost per unit for flats is usually less than for individual houses. Based on Fife and Angus actual costs, as well as quotes gathered from contractors (2014 prices) the cost-benefit analysis concluded that installation costs for a new development would be £2,000-£3,500 per unit for houses and £1,000 - £3,500 for flats, depending on the system used.

More recently, in 2016, the Welsh Government commissioned a review of a number of pilot schemes where sprinklers had been installed into new social housing

---

developments, ahead of the new obligations coming into force\textsuperscript{32}. Where the installation costs had been confirmed at the time of publication, the report found that that unit price was as follows:

- Flats: £915 - £3,541
- Houses: £1,440 - £2,990
- Bungalows: £1,665 - £2,502

The above costs include the costs per unit of any pump and/or tank system that was used. The cost per flat mirrors the estimates in the 2015 Scottish Government’s cost benefit analysis but the costs per house are slightly lower. This may be due to a variety of reasons: either a reduction in costs over the two-year period since the Scottish Government review; a difference in costs between the two jurisdictions; the types of systems selected for each development; or larger economies of scale in the Welsh schemes. Whatever the cause, it may be reasonable to reduce the lower end of the 2015 estimates. Thus it is expected that, dependent on the system used and the size of the development, per unit installation costs resulting from enactment of the Bill will range from approximately:

- Flats: £1,000 - £3,500
- Houses: £1,500 - £3,500

\textit{Retrofitting Installation Costs}  
Due to the technical issues that can occur in attempting to retrofit sprinkler systems, installation costs are usually higher than for new-build installation and the costs can vary significantly depending on the type of building. Based on the quotes gathered, the Scottish Government’s cost-benefit analysis estimated retrofit costs per unit could range from approximately:

- Flats: £1,000 - £4,500
- Houses: £2,500 - £4,500

These costs would again be dependent on the type of system selected and the size of the retrofit project. In addition, there would potentially be extra building work costs and costs for a new water supply connection.

\textit{Water Supply Costs}  
Water supply costs can vary, depending on whether the system is linked to the mains or a tank and pump supply. Scottish Water makes it clear that they cannot always guarantee a constant supply of water and therefore recommends that domestic sprinkler systems should be fed from water storage with pumps\textsuperscript{33}. However, the proposed Bill

\textsuperscript{33} Scottish Water, “Sprinkler systems for residential and domestic occupancies: A policy guide”, available at: \url{http://www.scottishwater.co.uk/assets/business/files/our%20services/byelaws/domesticsprinklerspolicyfinal.pdf}
would place no technical requirement on the types of fire suppression system used. Problems with low or inconsistent water pressure will obviously be more salient in certain areas and decisions as to the desired level of water pressure will therefore be left to local authorities and RSLs.

The Scottish Government’s 2015 cost/benefit analysis estimated the water supply costs to be £100-500 per unit for houses and £0-100 per unit for flats. Where the mains water supply is considered sufficient there should not be any additional water supply charges, for either houses or flats, above the normal charges for new-builds. Likewise, for retrofitting, where existing supply can be utilised there would be no extra water supply charge. It is only where larger diameter supply pipes are necessary that the costs could vary from several hundred to several thousand pounds.

Low water pressure was a particular problem for developments across Wales. Nevertheless, in the Welsh Government’s pilot review, the majority of developments were mains fed and made use of a pump system to increase water pressure, thereby incurring no additional water supply costs. However, there were a small number of developments that incurred additional charges for water supply connections requiring a larger than standard supply connection (considered bespoke connections). Where these had been confirmed the costs ranged from £230 - £360 per unit. The costs related to installing a pump system to manage water pressure are included in the installation costs set out above.

**Maintenance Costs**

Maintenance costs reported in the Scottish Government’s 2015 cost benefit analysis ranged from £50-£200 per unit per annum. Pump/tank systems and systems installed in houses had costs in the higher end of the range but the costs did not vary depending on whether the system was retrofitted or not. Fife Council were reported as having been quoted £400 per unit per annum for the maintenance of a tanked system but this was significantly higher than all other estimates in the report.

**Equality Implications**

Social housing residents are more likely than other tenures to form one person households and a high proportion of social tenants are single pensioners. In addition, compared to other tenures, adults in social rented properties have the highest proportion of people permanently sick or disabled. In the 2011 Scottish Census a higher percentage of people living in social rented accommodation reported their health to be ‘bad’ or ‘very bad’ (12% compared to 5% across all tenures). People aged 65 and over living in social housing are also more likely to have a long-term health problem or disability (68% compared to 46% of owner-occupiers).

---


In addition to noting that a high proportion of fires occur in areas of increased deprivation and poverty, the *Scotland Together* report also stated that older people who live alone are especially at risk. The fitting of fire suppression systems would thus particularly benefit the high proportion of older social housing residents who may suffer from hearing loss, lack of mobility or sensory impairment. The same benefit would clearly also apply to younger individuals who suffer from either a physical or mental disability.

**Sustainability Implications**

*New-Build Social Housing*

The proposed Bill should have a positive impact on sustainable development by improving the health, security and safety of residents in social housing, which is often located in socially deprived areas and whose residents therefore might be considered to be some of the most vulnerable.

The proposal adopts the precautionary principle, and provides a precautionary measure to assist with the containment and control of fires. This should therefore impact on the use of resources, materials and energy by preventing the need to rebuild housing and the loss of social capital where residents are rehoused in different areas, as well as reducing the stress of them potentially being uprooted from their local community. It would also prevent material and financial losses on the part of residents and housing providers.

Similarly, there should be a positive impact on the environment in terms of the potential to avert the pollution fires cause, and the associated contamination of air, groundwater and local ecosystems. The volume of water required for fire-fighting is significantly reduced through the use of sprinklers, as is the potential resultant “Fire Water Run Off”. Research also suggests that fires extinguished by sprinklers release between 7.8% and 21.6% less carbon dioxide emissions than fires in buildings without sprinklers.36

*Retrofitting in High-Rise Blocks*

The same benefits as outlined above should apply in the context of retrofitting sprinklers in high-rise blocks.

One possible detrimental effect on some residents might be an inequality where those residents who are owner-occupiers or renting from such an owner would be disadvantaged through not having the same protection. Nonetheless, on the whole, the benefit of having even most/some flats fitted with fire suppression systems could prevent/reduce the expansion and spread of fires so that overall risk is reduced.

---

QUESTIONS
ABOUT YOU

1. Are you responding as:
   □ an individual – in which case go to Q2A
   □ on behalf of an organisation? – in which case go to Q2B

2A. Which of the following best describes you? (If you are a professional or academic, but not in a subject relevant to the consultation, please choose “Member of the public”.)
   □ Politician (MSP/MP/peer/MEP/Councillor)
   □ Professional with experience in a relevant subject
   □ Academic with expertise in a relevant subject
   □ Member of the public

2B. Please select the category which best describes your organisation:
   □ Public sector body (Scottish/UK Government or agency, local authority, NDPB)
   □ Commercial organisation (company, business)
   □ Representative organisation (trade union, professional association)
   □ Third sector (charitable, campaigning, social enterprise, voluntary, non-profit)
   □ Other (e.g. clubs, local groups, groups of individuals, etc.)

3. Please choose one of the following:
   □ I am content for this response to be attributed to me or my organisation
   Please provide your name or the name of your organisation as you wish it to be published:

   Name:

   □ I would like this response to be anonymous (the response may be published, but no name)
   □ I would like this response to be confidential (no part of the response to be published)

4. Please provide details of a way in which we can contact you if there are queries regarding your response. (Email is preferred but you can also provide a postal address or phone number. We will not publish these details.)

   Contact details:
YOUR VIEWS ON THE PROPOSAL

Aim and approach

*1. Which of the following best expresses your view of requiring fire suppression systems (i.e. fire sprinklers) to be fitted in new-build social housing?

☐ Fully supportive
☐ Partially supportive
☐ Neutral (neither support nor oppose)
☐ Partially opposed
☐ Fully opposed
☐ Unsure

Please explain the reasons for your response, including what you see as the advantages or disadvantages.

*2. Which of the following best expresses your view of requiring fire sprinklers to be retrofitted into housing owned by social landlords which is located in high-rise buildings built prior to 2005?

☐ Fully supportive
☐ Partially supportive
☐ Neutral (neither support nor oppose)
☐ Partially opposed
☐ Fully opposed
☐ Unsure

Please explain the reasons for your response, including what you see as the advantages or disadvantages.

3. Do you think that there are other steps which could be taken (either instead of, or in addition to legislation) to achieve the aims of the proposal?

☐ Yes
☐ No
☐ Unsure

Please explain the reasons for your response.

Financial implications

4. Taking account of both costs and potential savings, what financial impact would you expect a requirement to include fire sprinklers in new-build social housing to have on:
(a) Government and the public sector
- Significant increase in cost
- Some increase in cost
- Broadly cost-neutral
- Some reduction in cost
- Significant reduction in cost
- Unsure

(b) Businesses
- Significant increase in cost
- Some increase in cost
- Broadly cost-neutral
- Some reduction in cost
- Significant reduction in cost
- Unsure

(c) Individuals
- Significant increase in cost
- Some increase in cost
- Broadly cost-neutral
- Some reduction in cost
- Significant reduction in cost
- Unsure

Please explain the reasons for your response.

5. Taking account of both costs and potential savings, what financial impact would you expect a requirement to retrofit fire sprinklers in housing owned by social landlords which is located in high-rise buildings built prior to 2005?

(a) Government and the public sector
- Significant increase in cost
- Some increase in cost
- Broadly cost-neutral
- Some reduction in cost
- Significant reduction in cost
- Unsure

(b) Businesses
- Significant increase in cost
- Some increase in cost
- Broadly cost-neutral
Some reduction in cost
☐ Significant reduction in cost
☐ Unsure

(c) Individuals
☐ Significant increase in cost
☐ Some increase in cost
☐ Broadly cost-neutral
☐ Some reduction in cost
☐ Significant reduction in cost
☐ Unsure

Please explain the reasons for your response.

6. Are there ways in which the Bill could achieve its aim more cost-effectively (e.g. by reducing costs or increasing savings)?

☐ Yes
☐ No
☐ Unsure

Please explain the reasons for your response.

Equalities

7. What overall impact is the proposed Bill likely to have on equality, taking account of the following protected groups (under the Equality Act 2010): race, disability, sex, gender re-assignment, age, religion and belief, sexual orientation, marriage and civil partnership, pregnancy and maternity?

☐ Positive
☐ Slightly positive
☐ Neutral (neither positive nor negative)
☐ Slightly negative
☐ Negative
☐ Unsure

Please explain the reasons for your response.

8. In what ways could any negative impact of the Bill on equality be minimised or avoided?
Sustainability

9. Do you consider that the proposed Bill can be delivered sustainably, i.e. without having likely future disproportionate economic, social and/or environmental impacts?
   - Yes
   - No
   - Unsure

Please explain the reasons for your response.

General

10. Do you have any other comments or suggestions in relation to a requirement for fire sprinklers to be fitted in new-build social housing?

11. Do you have any other comments or suggestions in relation to a requirement to retrofit sprinklers into housing owned by social landlords which is located in high-rise buildings built prior to 2005?
HOW TO RESPOND TO THIS CONSULTATION

You are invited to respond to this consultation by answering the questions in the consultation and by adding any other comments that you consider appropriate.

Format of responses

You are encouraged to submit your response via an online survey (Smart Survey) if possible, as this is quicker and more efficient both for you and the Parliament. However, if you do not have online access, or prefer not to use Smart Survey, you may also respond by e-mail or in hard copy.

Online survey

To respond via Smart Survey, please follow this link:
http://www.smartsurvey.co.uk/s/FireSprinklers/

The platform for the online survey is Smart Survey, a third party online survey system enabling the SPCB to collect responses to MSP consultations. Smart Survey is based in the UK and is subject to the requirements of the Data Protection Act 1998. Any information you send in response to this consultation (including personal data and sensitive personal data) will be seen by the MSP progressing the Bill and by specified staff in NGBU, and may be added manually to Smart Survey.

Further information on the handling of your data can be found in the Privacy Notice, which is available either via the Smart Survey link above, or directly from this link:
https://www.smartsurvey.co.uk/privacy-policy

Electronic or hard copy submissions

If possible, please submit your response electronically – preferably in MS Word document. Please keep formatting of this document to a minimum, and avoid including any personal data other than your name (or the name of the group or organisation on whose behalf you are responding).

Any additional personal data (e.g. contact details) should be provided in the covering e-mail (or a covering letter).

Please make clear whether you are responding as an individual (in a personal capacity) or on behalf of a group or organisation. If you are responding as an individual, you may wish to explain briefly what relevant expertise or experience you have. If you are responding on behalf of an organisation, you may wish to explain the role of that organisation and how the view expressed in the response was arrived at (for example, whether it reflects an established policy or was voted on by members).
Where to send responses

Responses prepared electronically should be sent by e-mail to:

David.Stewart.msp@parliament.scot

Responses prepared in hard copy should be sent by post to:

David Stewart MSP
MG.05
Scottish Parliament
Edinburgh EH99 1SP

You may also contact David’s office by telephone on (0131) 348 5766.

Deadline for responses

All responses should be received no later than 16 April 2018.

How responses are handled

To help inform debate on the matters covered by this consultation and in the interests of openness, please be aware that I would normally expect to publish all responses received on my website www.sprinklersforscotland.com. As published, responses will normally include the name of the respondent, but other personal data (signatures, addresses and contact details) will not be included.

Copies of all responses will be provided to the Scottish Parliament’s Non-Government Bills Unit (NGBU), so it can prepare a summary that I may then lodge with a final proposal (the next stage in the process of securing the right to introduce a Member’s Bill). NGBU will treat responses in accordance with the Data Protection Act 1998. The summary may cite, or quote from, your response and may name you as a respondent to the consultation – unless your response is to be anonymous or confidential (see below).

I am also obliged to provide copies of all responses to the Scottish Parliament’s Information Centre (SPICe). SPICe may make responses (other than confidential responses) available to MSPs or staff on request.

Requests for anonymity or confidentiality

If you wish your response, or any part of it, to be treated as anonymous, please state this clearly. You still need to supply your name, but any response treated as anonymous will be published without the name (attributed only to “Anonymous”), and only the anonymised version will be provided to SPICe. If you request anonymity, it is your responsibility to ensure that the content of your response does not allow you to be identified.
If you wish your response, or any part of it, to be treated as confidential, please state this clearly. If the response is treated as confidential (in whole or in part), it (or the relevant part) will not be published. However, I would still be obliged to provide a complete copy of the response to NGBU, and a copy of any non-confidential parts (i.e. a redacted copy) to SPICe when lodging my final proposal. As the Scottish Parliament is subject to the Freedom of Information (Scotland) Act 2002 (FOISA), it is possible that requests may be made to see your response (or the confidential parts of it) and the Scottish Parliament may be legally obliged to release that information. Further details of the FOISA are provided below.

In summarising the results of this consultation, NGBU will aim to reflect the general content of any confidential response in that summary, but in such a way as to preserve the confidentiality involved. You should also note that members of the committee which considers the proposal and subsequent Bill may have access to the full text of your response even if it has not been published (or published only in part).

Other exceptions to publication

Where a large number of submissions is received, particularly if they are in very similar terms, it may not be practical or appropriate to publish them all individually. One option may be to publish the text only once, together with a list of the names of those making that response.

There may also be legal reasons for not publishing some or all of a response – for example, if it contains irrelevant, offensive or defamatory statements or material. If I think your response contains such material, it may be returned to you with an invitation to provide a justification for the comments or remove them. If the issue is not resolved to my satisfaction, I may then disregard the response and destroy it.

Data Protection Act 1998

As an MSP, I must comply with the requirements of the Data Protection Act 1998 which places certain obligations on me when I process personal data. As stated above, I will normally publish your response in full, together with your name, unless you request anonymity or confidentiality. I will not publish your signature or personal contact information, or any other information which could identify you and be defined as personal data.

I may also edit any part of your response which I think could identify a third party, unless that person has provided consent for me to publish it. If you specifically wish me to publish information involving third parties you must obtain their consent first and this should be included in writing with your submission.
If you consider that your response may raise any other issues concerning the Data Protection Act and wish to discuss this further, please contact me before you submit your response.

Further information about the Data Protection Act can be found at: [www.ico.gov.uk](http://www.ico.gov.uk).

**Freedom of Information (Scotland) Act 2002**

As indicated above, once your response is received by NGBU or is placed in the Scottish Parliament Information Centre (SPICe) or is made available to committees, it is considered to be held by the Parliament and is subject to the requirements of the FOISA. So if the information you send me is requested by third parties the Scottish Parliament is obliged to consider the request and provide the information unless the information falls within one of the exemptions set out in the Act, potentially even if I have agreed to treat all or part of the information in confidence or to publish it anonymously. I cannot therefore guarantee that any other information you send me will not be made public should it be requested under FOI.

Further information about Freedom of Information can be found at: [www.itsspublicknowledge.info](http://www.itsspublicknowledge.info).