

Property flood resilience for new and existing homes

10.00-11.30, Wednesday 25th March 2020

Top Lines

- **The Code of Practice and associated guidance for Property Flood Resilience (PFR)** is a welcome tool for planners, designers and homeowners. Its implementation will improve standards in the industry.
- **Retrofitting existing properties with PFR** reduces the costs associated with restoration after a flood and can significantly cut down the amount of time it takes for people to re-occupy their homes and businesses.
- **The language surrounding flooding and return periods can be confusing.** Effective communication with vulnerable communities is essential to help them make informed decisions. The introduction of a property resilience certificate will be key to achieving this.

Recommendations

- **An evidence-base on the efficacy of PFR measures must be developed** to provide confidence to the insurance industry and so that vulnerable properties can remain insurable following the removal of FloodRe.
- **Planning practitioners should draw on best practice from around the world when designing buildings and communities.** Major new developments, such as the Oxford-Cambridge Arc, will present opportunities for this.
- **The scope of the forthcoming Future Homes Standard should be expanded to include PFR.** We must future-proof new homes so that they are resilient to a changing climate and will be habitable through the end of this century.

Introduction

In June 2018 the [Westminster Sustainable Business Forum](#) (WSBF) published its inquiry: *Bricks and Water*, chaired by former Liberal Democrat MP Angela Smith and Conservative Peer Baroness McIntosh of Pickering. The report comprised an evidence-based assessment of the challenges associated with sustainable housebuilding and water management in England. Building on the recommendations set out in this report, the WSBF is embarking on a follow-up project, which will explore property resilience for new and existing homes, to feed into the Government's Future Homes Standard and related legislative changes during this Parliament.

This discussion formed the third evidence session to support the forthcoming inquiry and focussed on the topic of property flood resilience. The roundtable was kindly chaired by the shadow minister for Fisheries, Flooding, Coastal Communities and Water, Ruth Jones MP.

Inquiry co-sponsors



Speakers

Ruth Jones MP (Chair)

- Last winter's storms are a stark reminder that our climate is changing and we will continue to experience drier summers and warmer, wetter winters. It's therefore essential to be proactive and to plan for flood events before they occur.
- Coastal communities are particularly vulnerable, given that they often have to deal with both coastal erosion and tidal flooding.
- In light of the climate emergency we need joined-up policy that works for the whole of the United Kingdom. We should consider the impacts of flooding at the catchment scale right down to the property level.

Graham Brogden, outgoing Chair – DEFRA Property Flood Resilience Roundtable

- The Flood Resilience Action Plan was formed to encourage people to take up measures to reduce the cost and time it takes to restore properties following a flood event.
- In aftermath of storms Desmond, Frank, and Eva in 2015/16, standards for Property Flood Resilience (PFR) measures were driven down by the entry of rogue traders to the market. The Code of Practice for PFR was set up with CIWEM, CIRIA and BRE to help improve standards and restore integrity to the industry.
- The Code comprises six standards including; hazard assessment, whole-building property surveying, options development, construction, commissioning/handover, and operation/maintenance. The maintenance of PFR measures is particularly important. If these systems do not function correctly, they can be ineffective when deployed.

Ed Barsley, Director – The Environmental Design Studio

- Ed's book, *Retrofitting for Flood Resilience* is a guide to mitigating the effects of flooding at the property, street, and catchment scale. It provides a tool for homeowners, designers and policy makers.
- It is important to recognise that the sources of flooding go beyond rivers and the sea. Each source of flooding presents a unique set of challenges. 'Copy and paste' strategies don't work when specifying PFR measures, due to the variety in the age and nature of the buildings across the country.
- One of the key benefits of retrofitting properties with PFR is that it significantly cuts down the time it takes to restore a building. This means that residents spend less time out of their homes and it reduces the risk of being re-flooded whilst restoration work is taking place.
- Floodwater is much more hazardous than people think. It can be electrified and carry contaminants such as battery acid. This adds additional time and cost to restoration work.
- We should draw on best practice from overseas when redesigning our urban spaces. Bangkok's Chulalongkorn Centennial Park creates a huge amount of flood storage within a large city, whilst also providing green space and amenity benefits for residents.

Professor Louise Bracken, Durham University

- We should use all of the tools available to us to mitigate the effects of flooding, including natural flood management, sustainable drainage, integrated catchment management, and action at the property-level.
- Technical language is unhelpful for people in vulnerable communities, especially those who have been impacted by flooding. Effective communication and education is essential – projects that have engaged communities in the planning process at an early stage have yielded good results.
- Many PFR measures are straightforward to implement and products should be mainstreamed so that they are affordable and easy to use.
- Online mapping and flood hydrographs can provide useful tools to inform the public about the location and severity of flood events.

Discussion

- We must be able to demonstrate to the insurance industry that making a property resilient will reduce the costs of restoration after a flood. The average cost of restoring a property affected by flooding is £50,000. For vulnerable properties to remain insurable following the withdrawal of Flood Re, this cost needs to be reduced significantly. The incorporation of PFR in accordance with the Code of Practice will help to achieve this.

- Anecdotal evidence suggests that business with PFR can be reopened as soon as 24 hours after a flood. This can include relatively simple measures such as relocation of important stock once a flood warning is issued.
- We may need to accept that some communities cannot be defended from flooding, particularly in coastal areas. In extreme circumstances homes and essential services may have to be relocated. It is better to have these difficult conversations at the earliest opportunity.
- FloodRe's Quinquennial Review includes details on the Build Back Better initiative, which includes surplus payments on top of claims to allow people to fund PFR.
- Initial work is underway to provide data to give the insurance industry the confidence it needs to reduce premiums on the basis of PFR. Ideally this would be detailed enough to demonstrate the reduction in premium that can be associated with different PFR measures.

About the Westminster Sustainable Business Forum

The Westminster Sustainable Business Forum (WSBF) is Policy Connect's coalition of high-level stakeholders informing better policy-making on sustainability issues for the built environment.

The WSBF's members include key UK businesses, Parliamentarians, Civil Servants, academics and third sector organisations. Providing a politically neutral environment for knowledge sharing and discussion on sustainability policy, we help to impact the agenda in government and are a trusted source of independent information and advice for policymakers.

We publish authoritative research reports; impact on government policy through our in-depth round table policy discussions and outputs; and inform the wider sustainability debate by convening key stakeholders at our larger policy events and seminars. The WSBF works in the policy areas of construction, infrastructure, water, sustainable planning, green finance and natural capital. We are cross-party, independent and not-for-profit. For more information on our activities, please visit: www.policyconnect.org.uk/wsbf