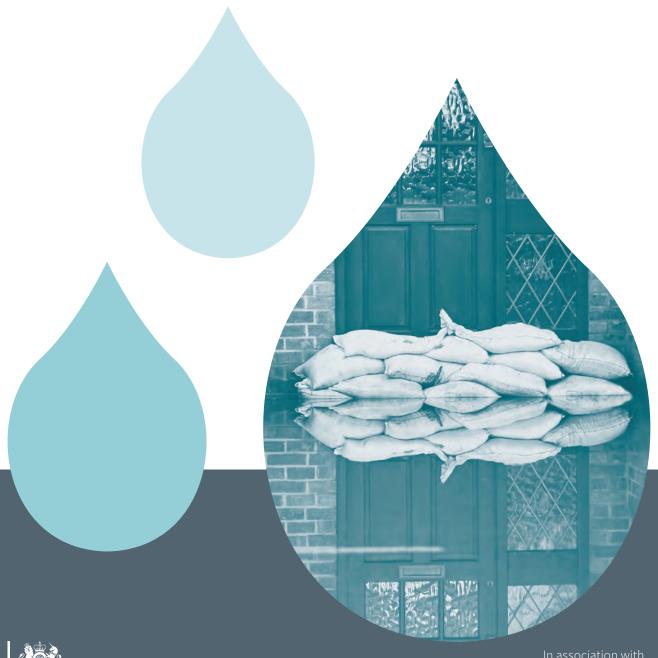
# DEFRA PROPERTY LEVEL FLOOD RESILIENCE ROUNDTABLE

## 2017 END-OF-YEAR 1 REPORT



Department for Environment Food & Rural Affairs

In association with



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## **Ministerial Overview**

I welcome the publication of this report describing progress with Property Level Resilience Action Plan. The plan set out a challenging 5-year plan for government and business to make it easier for people to make their more homes flood resilient. I would like to commend both Graham Brogden for his work chairing the group, and the other members of the Roundtable for achieving so much, since I launched it in November 2016.

We want to leave our environment in a better state than we found it. The 25 Year Environment Plan, published in January this year, outlines steps to achieve that ambition. We have committed a record investment of £2.6 billion in more than 1,500 flood defence projects to better protect an additional 300,000 homes by 2021. However, not all flooding can be prevented. Homes at risk would be better protected if they were also equipped to prevent water coming in and to deal with it more quickly if it does.

In what is its first year, the PLR Action plan, has seen members of the group leading innovative community actions like the Flood-Resilient-Showcase in Cumbria, setting up the Flood-Guidance-web-portal, and developing industry training courses.

These are the first stages of changes that should demystify what flood resilience means to the public and will help build consumer confidence are critical to delivering the action plan outcomes. When I visited the Botcherby community centre in Carlisle in December 2017 I was impressed with the dedication and effort that went into making this building flood resilient, and to see how subtle many of the resilience changes were. I hope that this encourages more people to adapt their homes.

I hope that this progress will continue into the second year and in particular, I look forward to the completion of work now underway on the creation of a Code of Practice for the flood resilience industry.



MP Thérèse Coffey, Parliamentary Under Secretary of State at the Department for Environment, Food and Rural Affairs



MP Thérèse Coffey fitting flood barriers at Botcherby Community Centre, December 2017



# **Chairman's Summary**

It has been just over 12 months since the Property Flood Resilience (PFR) action plan was officially published; during that time, we have seen significant progress, some of which has exceeded our expectations for the first year.

The commitment of all those involved has made this possible. We have seen the group grow since the launch but everyone who has joined the group over the last twelve months has brought new insight and vision to the individual tasks groups and for that I thank you.

Since the group was formed over 4,000 property owners have been helped in applying for the grant money following the devastating floods affecting the north of the country in 2015. The group have now moved on to a community scheme providing resilience to three showcase projects in Cumbria and this has been made possible by some fantastic support and sponsorship from many companies, providing materials, labour and expert advice.

We have also seen the launch of our new web site: www.floodguidance. co.uk; which is now giving property owners one central place to source information that will help them prepare, react and recover from flooding.

The Code of Practice (CoP) is now well into the development stages and the first draft will be available in the first quarter of 2018. This exceeds all expectations for our delivery plans in 2017 and will provide us with a solid platform off which we can build going forward. I am looking for insurers, loss adjusters and trade associations to buy into the code once released and support the application of the standards for all flood risk properties.

We do have some challenges to address in 2018, but I am really looking forward to meeting those challenges head on and working collaboratively across the cross-sector group to help remove any blockages to drive forward the initiatives.

I would like to take this opportunity to thank each and every one of the roundtable group for their hard work and commitment to this work in 2017 and I very much look forward to working with you all in 2018 and delivering on the next stages of the plan.

Chairman's Announcement: I am delighted to report that as this report was being finalised, I was made aware that the BRE's Flood Resilient Repair House received a Project Excellence Award for Innovation at the Flood & Coast 2018 dinner on Thursday 21st March 2018. Task Group 3 Chair Matt Barker collected the award on behalf of the group. I would like to extend my congratulations to Matt and the whole of BRE for achieving this award.



Graham Brogden, Chair of Defra Flood Resilience Roundtable

# Report Background

This end-of-year summary is designed to demonstrate what has been achieved at the end of Year 1 of the Defra Property Flood Resilience Roundtable project. The Roundtable has been developed to understand and address the issues why property owners may or may not take up PFR. It was conceived post-December 2015 floods, which saw swathes of northern England inundated by unprecedented volumes of rainfall. We are at the end of Year 1 of an ambitious 5-year project; and as Graham Brogden indicated in his introduction, much has been achieved by the 6 Task Groups.

Task Group 1: Community Innovation

Task Group 2: Small Business Resilience

Task Group 3: One-Stop Shop

Task Group 4: Standards, Certification and Skills

Task Group 5: Communications and Behaviour Change

Task Group 6: Data Model

Whilst wanting to demonstrate the first-year highlights, this summary is also designed to reflect some of challenges and key learnings experienced by the different task groups, as well as mentioning a few thank yous. The report is set out to demonstrate what the Task Groups have achieved in number order.













**Group 1** Community **Innovation** 

**Group 2 Small Business** Resilience

**Group 3 One-Stop** Shop

**Group 4** Standards. Certification and Skills

**Group 6 Data Model** 

**Group 5** 

**Communications and Behaviour Charge** 

# **Acronyms and Initialisms**

The following list includes the acronyms and initialisms used throughout the report:

BERG	Business Emergency Resilience Group			
BSI	British Standards Institution			
C4R	Centre for Resilience			
CIRIA	Construction Industry Research and Information Association			
СОР	Code of Practice			
CRIP	Commonly Recognised Information Picture			
Defra	Department for Environment, Food and Rural Affairs			
EA	Environment Agency			
GDPR	General Data Protection Regulation (coming in force 2018)			
PFR	Property Flood Resilience			
RICS	Royal Institution of Chartered Surveyors			
SME	Small Medium Enterprise			
SOP	Standard Operating Procedure			





# **Community Innovation**

"This was a challenging project and has created an immense amount of goodwill across public, voluntary and private sector. It has been a true demonstration of the value of collaboration and has generated a wealth of learning and experience. The outcomes will be promoted widely through all forms of media and will form the foundation for community understanding and take-up of 'Resilience'."

Task Group 1 Chair - Mark Calvert, CEO Adler & Allan

#### **Task Group 1 Objectives**

- Establish a practical project in Carlisle to test resilience measures in three properties (a private home; Small Medium Enterprise (SME); and a public building) at risk of flooding. This builds on the work already undertaken as a pilot at the BRE this year.
- 2. Form a public-private collaboration with the Environment Agency (EA) to promote resilience amongst the local and wider community.



#### **Successes**

The work on the Botcherby Community Centre is almost complete. The project received a free flood resilient kitchen from Steelplan Kitchen and a specialist building company donated their time to make the fabric of the kitchen resilient, using material donated by Safeguard Europe. The feeling of goodwill for this project has been palpable and we have demonstrated that companies can collaborate; the request for free materials and products to showcase was well received. Everyone enjoyed working together to create our Cumbria Showcase Resilience Project YouTube Video, which is a lasting 'how to' legacy for both homeowners and professionals. Further, working with Oxford Brooks University and Aquobex, we felt it was far better to ensure that the donated materials worked together in a flooded tank to see that they were truly resilient, before they were tested in a real flood. An original component did not work well with the others, so we identified a more resilient replacement. This posed challenges with both the time it took to source an alternative and management of personnel involved; however, we are much happier with the outcome as a result.

#### **Challenges**

Obtaining full planning permission and listed buildings consent for the SME, which has now been further delayed as the owner no longer wishes to take part in the showcase project: he plans to sell the property, as it stands, and retire due to ill health. The team are now looking for another SME.

#### **Key learnings**

implementing flood resilience in a property is not easy and as practitioners and homeowners, we have a lot to learn. We cannot underestimate how long a project like this takes. We have learnt that it is worthwhile documenting every step of the journey for evidence.

Thank you: We have received many generous donations for which we are extremely grateful, including fully fitted kitchens to PFR products and building materials. Special thanks go to: Delta Membranes for their huge donation of cavity wall membranes and epoxy resin; Aquobex and Oxford Brooks University for funding the testing and designing the installation for the home; AXA Insurance for sponsoring the filming and the production of the email newsletter, which will be put together at the end of the project; and finally, to Flood Re for sponsoring expensed that will occur wit the house.



# **Embedding Resilience** in **Small Businesses**

"We have engaged with insurers and have a clear understanding of the challenges in integrating resilience into their pricing model. It will involve an improved evidence base, to demonstrate the success of resilience and a method of capturing the success of resilience at property level (such as the flood resilient database). There will also need to be IT system integration and process change within insurers to make this a reality.

We have also identified opportunities for lenders to invest in resilience. This is an opportunity to increase the widespread uptake of resilience."

Task Group 2 Chairs - Ian Gibbs & Roy Shelvin, Cunningham Lindsey

## **Task Group 2 Objectives**

- 1. To gather evidence on the current impact of resilient measures on lenders and insurers.
- 2. Engage with underwriters to understand their appetite to recognise the merits of resilience and the business challenges they face.
- 3. To engage with lenders to see how they could positively influence the uptake of resilience.
- **4.** To gather the evidence of successful resilient measures within the SME community.



#### **Successes**

In the first year having so many influential companies talking about resilience issues together was a huge success. Having canvassed the views of brokers, insurance claims staff and underwriters and debated the many and varied critical factors that apply to each we are now far better informed and in possession of information that will allow us to focus on areas that will make the difference to the task group outcomes.

Currently SMEs in flood risk areas present their risk to insurers, so that the insurers can manually review and assess whether to accept the risk and on what terms. Outside of flood risk areas, risk is assessed using an automated online process. We have established that system development is needed to allow the unique flood risk elements to be included in the automated process.

We have identified that lenders may see resilience as an opportunity to invest, by creating a new business model in this area. We have found some evidence of SMEs investing in resilience, informing our understanding of what drives their actions.

#### **Challenges**

The main challenge has been the engagement of lenders, who have little knowledge of and confidence in resilience measures. There is also limited identification of the use of resilience by SMEs on any substantial scale. Outside of known flood risk areas, where floods can and do occur, there is no opportunity for SMEs to highlight any resilience measures they may have undertaken that would improve their risk in the event of a flood, and consequently reduce their premium.

#### **Key learnings**

There are some large industry changes required within the financial sector to embed resilience in their day-to-day operations. We now need to bring together the learning of several of the task groups to inform the financial sector, so they can develop a model to enable insurers and lenders to invest in resilience.

**Thank you:** Special thanks are due to Task Group members Sue Highmore, Andrew Poole and Dave Hughes for leading sub-groups considering the topics of lending, communication and insurance.



# **One-stop Shop**

"The website allows us to communicate the right messages to those affected by flooding. It does not attempt to replace existing guidance accessible online; instead it seeks to act as a conduit to the appropriate guidance available on the internet.

The new site reach audiences beyond home and business owners, including: flood resilience professionals; local authorities; and researchers. By targeting a wider range of individuals, the site aims holistically help change mindsets about the implementation of PFR measures within the UK."

Task Group 3 Chairs - Matt Barker & Sam Turner, BRE

## **Task Group 3 Objectives**

- 1. Establish a brand image
- 2. Set up and launch new website
- 3. Improve functionality and site navigation
- 4. Improve current, and create new, site content
- 5. Further engagement with EA marketing campaigns.



#### **Successes**

We launched the floodguidance.co.uk website to replace the previous centre4resilience.org (C4R) website and branding. The new website is easily searchable and easier to find for the end user, which includes homeowners, businesses and professionals.

New content for the website was created, including sections about: what flood resilience is; the types of resilience measures available; and different types of flooding. Content is in development to ensure that home and business owners have appropriate advice about insurance. In addition, website content has been refined to improve readability, simplicity and user understanding of the messages.

Task group 3 now links with Task Group 5 to engage further with the Environment Agency and their marketing campaigns, so that consistent messaging can be delivered. The website was integrated with the MET office website and collaboration discussions with Natural Resources Wales have been held.



The new Flood Guidance logo.

#### **Challenges**

Funding remains an issue for the website, which will be a key focus for 2018. The management and preparation of new content for this resource will need support to keep the site up-to-date and to further improve the content available. It has been a challenge to keep all website content at the appropriate level both for business owners and householders, to ensure that this is both relevant and informative as well as being useful for the various target audiences.

### **Key learnings**

Consistent messaging from a range of parties and impartiality are key requirements to convince householders and business owners that information is reliable. Collaboration between a range of different stakeholders, and consideration of several key perspectives, is essential to ensure that the appropriate messages are being delivered. There is a wide range of information available online, however some of this can be confusing due to different terminology. The use of complicated or technical vocabulary as part of the site should be avoided and replaced by simple, active language.

Thank you: to all task group members for the continued effort with the review and recommendations for the Floodguidance. co.uk site. The governance panel ensures that any new content requirements are peer reviewed and are kept relevant to users of the website.



# Standards, Certifications and Skills

"The Task Group 4 has worked hard over the year to achieve the objectives, we are beginning to see to see the fruits of that labour with the Code of Practice for PFR well underway to development, and the creation of the surveyor training course and surveyor certification scheme.

The provision of better standards, skills and certification will be of benefit to home and business owners who are effected by flooding around the country."

**Task Group 4 Chair - Dr Stephen Garvin** 

## **Task Group 4 Objectives**

- 1. Gain acceptance and funding for a PFR Code of Practice (CoP)
- 2. Develop PFR Surveyor Training
- 3. Develop PFR Surveyor Certification Scheme
- Complete the preparation of the PFR-database, and make ready to launch with training / certification schemes
- 5. Monitor and support the update to PAS1188, the BSI Kitemark for Flood Protection products, which has been proposed by BSI
- Discuss the issues around PFR installer standards and seek ways forward that will be supported by the whole industry
- 7. Use the PFR repair house at BRE Watford as a central point for discussions
- **8.** Develop ideas and carry out research on the resilience of building materials.



#### Successes

The objectives have largely been achieved. A highlight was the launch of the PFR repair house at BRE Watford, which achieved UK wide coverage on BBC Countryfile. The PFR CoP was developed and will be available from 2018. The CoP work is being funded and project managed by CIRIA (Construction Industry Research and Information Association), with a contracting team including BRE, University of West of England and Whitehouse Construction, supported by the Environment Agency.

The first training course was delivered in December 2017 (BRE Academy) and the Certification scheme developed (BRE Global). The PAS1188 update is still progressing.

Finally, there was a workshop on resilient building materials undertaken in December 2017, with a report to be written on the way forward.





BRE Flood House Launch 2017 More information: bre.co.uk/floodhouse

## Output

BRE Academy have now launched their Property Flood Resilient Surveyor course to train suitably qualified individuals to conduct impartial flood risk assessments on properties within the UK.

In support of Defra's Property Flood
Resilience Action Plan to implement
standards, certifications and skills to
provide reassurance that work has been
done correctly and to a high standard,
BRE Academy has partnered with BRE's
Centre for Resilience and Royal Institute
of Chartered Surveyors (RICS) to create
a training course which addresses the
fundamentals of flood resilience surveying,
assessing flood risk and the specification
of mitigation measures.

#### **Output**

The Property Care Association have developed their Property Flood Resilience Training for Surveyors. This course is for anyone who wants to deepen their understanding and awareness of the elements and processes involved in the assessment of flood risk and the delivery of flood resistance and resilience in the built environment.

It has been developed to address all the key elements that need to be considered to assess the risk of flooding and the development of strategies to provide flood resistance and resilience in existing buildings. The importance of liaising with homeowners, delivering on their needs and managing expectation are also essential elements of the training. Students will gain the skills to ensure the recommended flood protection strategies are appropriate to an individual's needs as well as being appropriate for the property and the flood risk.

### **Challenges**

There have been many challenges, particularly around the best route for customer confidence in the installer and surveyor standards and, linked to this, how the quality of work is guaranteed. Further discussion is needed and the Roundtable at the highest level needs to engage with the relevant players.

There is a need to gain wider industry acceptance of the need and value provided by independent PFR surveyors, whilst ensuring that all relevant organisations, including across the private, non-governmental and public sectors, make this a requirement to join things up.

Task Group 4 is a large group that deals with a wide range of issues. There is a requirement to break down the tasks into more sub-groups to accelerate the pace of development.

#### **Key learnings**

- We have established better working relationships with multiple partners, concluding that collaboration is better than confrontation.
- It has been hugely beneficial bringing together the public and private sectors.
- The public sector needs to properly support private sector initiatives around PFR.



# **Communications and Behaviour Change**

"This Roundtable has a great opportunity to encourage behavioural change across multiple sectors – insurance, building, planning – to ensure we protect lives and livelihoods, minimise economic losses to householders and the insurance industry and, most importantly, get people back in their homes and businesses sooner."

**Task Group 5 Chair - Carol Holt, Environment Agency** 

## **Task Group 5 Objectives**

- 1. The aim and focus of our communications and engagement activity is to provide effective and consistent information nationally.
- 2. Central and local government, the finance, insurance and legal sectors, and the construction industry should know about PFR; understand the purpose, benefits and risks associated with it; ensure that PFR is delivered as standard in these sectors; and act as advocates for PFR.
- Roundtable members and senior managers, in all relevant industries and sectors should have the information they need to understand the value of PFR to their businesses, and act as advocates for PFR across their sectors.
- 4. Professionals working in communities at risk feel confident in talking to the public and partners about PFR, it's purpose, and the benefits and risks associated with different product.



#### **Successes**

The media reporting has been balanced and positive. We have a strong network of advocates. We are starting to see a shift in approach by the insurance sector. We have developed the first draft of the communications plan, which is being developed further in early 2018.

#### **Challenges**

It was difficult to establish who should be the lead of Task Group 5, resulting in a delayed start. It was agreed that the Environment Agency would lead the group due to their vast experience of communications. It was only when this leadership was in place that the group started to develop objectives and engage others to contribute to the communications plan. It has been challenging ensuring that we have sufficient resource for the work to ensure momentum. We know for this Task Group to work we will have to collaborate effectively in 2018 with the other Task Groups, in order to disseminate the key messages.

#### **Key learnings**

Task Group 5 was only able to commence in the latter half of 2017 once the other Task Groups had become established. It is expected that there will be key learnings to share in 2018.

**Thank you:** To Graham Brogden (Aviva) and Suzie Hamblin-Boone (Defra) for development of the Communications and Engagement Plan.



## **Data Model**

"Those investing in PFR, whether households, government agencies or insurers need to have a better understanding of the costs and benefits of measures available in order to inform decision making. Successful use of existing data, generation of valuable new data through targeted research projects, monitoring emerging flood events and facilitating sharing relevant data appropriately will be key to the wider success of the PFR Roundtable objectives."

Task Group 6 Chair - Gary McInally, Flood Re

## **Task Group 6 Objectives**

- 1. Facilitating effective identification and sharing of data to inform policy on resilient measures for homeowners (and SMEs) in the future
- Identification and sharing of data to allow the insurance industry to recognise the risk reduction benefit of resilience for households and SMEs
- 3. Establishing the capture and sharing of a detailed "single source of truth" for flood event data across public/private organisations to inform both real-time event management and longer term provide a rich data source to improve the wider understanding of flood risk.



#### Successes

Detailed review of available Evidence Base completed and report produced following review and feedback from task group members. The key finding is that there is clear and positive data/evidence for the value of resistance measures; however, current data/evidence for the financial benefit of resilience measures is less clear for properties at a lower risk of flooding than a 1 in 30-year return period (circa 300-350k UK properties).

Our wider work indicates around 30% of the population has no insurance, with the insurance gap being very wide for those most vulnerable. Flood Re has also identified that pro-active repair will be required to drive any material reduction in risk.

Drones and satellites can capture live imagery of the extent and severity of flooding to feed into the CRIP (commonly recognised information picture) and inform empirical resilience performance studies and resilience scores/metrics.

Flood Re and Guy Carpenter convened a multiagency drone working group including Civil Aviation Authority, Police, Fire and Rescue, Cabinet Office's Civil Contingencies Secretariat, Environment Agency, Scottish Environment Protection Agency and members of Business in the Community's Business Emergency Resilience Group (BERG) to coordinate deployment protocols for drone data capture in flood situations, working towards a common sets of Standard Operating Procedures (SOP) that manage de-confliction and recognise all agencies separate data requirements. Data sharing is being considered for GDPR.



National Police and Fire and Rescue Drone Training Day, Nov 2017





BRE 3D Drone Model: National Resilience Day 2017

#### **Challenges**

The Roundtable recognised the importance of data in achieving its objectives and in April 2017 Flood Re agreed to lead this new Task Group, Task Group 6. Government is committed to open data but the concept of a "national data asset strategy" does not exist. Existing data on UK properties is currently fractured across multiple agencies/suppliers and insufficiently detailed at property level to adequately support resilience efforts. We found there was a limited amount of documented data/studies to support the case for resilience. The General Data Protection Regulation (GDPR) coming into effect in 2018 protects the interests of individuals and presents new challenges for sharing relevant data. While progress is being made establishing cross-agency SOPs for event response using drones, the mechanism for secure and interoperable data hosting/sharing remains unclear, together with the role of Resilience Direct.

#### **Key learnings**

Draft targets for achievable levels of resilience should be established in order to facilitatestakeholder consultation

- Drone and response work is opening the door for wider collaboration
- Task Group 6 activity facilitates the objectives of the Roundtable and would benefit from deeper collaboration and support from other task groups to ensure priorities are aligned and effort targeted most effectively.

#### Thank you:

**Evidence base:** to everyone on the Evidence Base expert panel – the level of engagement and feedback was fantastic over 2017.

**Event Data:** to Dr. Bev Adams from Guy Carpenter and Leaders from each agency on the drone working group, with special mention to CAA, Fire & Rescue, Police and National Police Air Service.



## Task Groups' Objectives for Year 2

- **Task Group 1** To complete work on the SME and Edenside Barn (the home)
  - To prepare and disseminate a lesson learnt report about the Cumbria showcase project and collaborate with other task groups where they are impacted by these
  - To consider future showcase projects in other areas of the country.

- **Task Group 2** Involve the lead members of Task Groups 1, 2, 4 and 6 in a project to identify blockages to acceptance of resilience by insurers (both homeowners and
  - Explore mechanisms for integrating resilience into insurers, modelling and pricing procedures
  - Try to create a model of how lenders see resilience as an investment opportunity and bring insurers on board
  - Improve awareness of resilience for small businesses

- **Task Group 3** Establish funding and resourcing.
  - Gain support within the flood community as the "go-to" site for flood guidance.
  - Further engagement with a wider network of stakeholders to further promote the Floodguidance.co.uk website.

- Task Group 4 Complete the draft CoP and disseminate to the flood industry so that it will be widely adopted
  - Develop the Installer Standards and Certification
  - Further the building materials test protocols and application in industry
  - Launch the PFR-database
  - Make training available as online version to widen appeal
  - Fully launch the PFR surveyor certification scheme

- **Task Group 5** Develop the communications plan further
  - To provide effective and consistent information
  - Support the work of the other Task Groups

- Task Group 6 Extend the Evidence Base study to capture a larger resilience dataset (both homeowners and SME) to begin developing useful pricing data that allows benefits of PFR to be seen by consumers when purchasing insurance.
  - We will gather information on historical claims to develop our information on properties with PFR (insurers and government agency sources).
  - Conduct exercises with EA LRFs and first responders to test and drone flood response "Standard Operating Procedures", working towards generating a cross sector Commonly Recognised Information Picture (CRIP).
  - Building wider cooperation with responders and agencies in Scotland, Wales and Ireland.
  - Understand and ensure data sharing activities are consistent with GDPR.

# **Task Group Participants**

Task Group 1	Mark Calvert (Adler and Allan), Andy Brown (Environment Agency); Nishi Mayor (Business in the Community); Jane Meek (Carlisle City Council); Stephen Garvin (BRE); Mary Dhonau (Mary Dhonau Associates).
Task Group 2	lan Gibbs and Roy Shelvin (Cunningham Lindsey); Sue Highmore (Thomson Reuters); Andrew Poole (Federation of Small Businesses); David Hughes (AXA Insurance); Hannah Speakman (Allianz); Tim Haywayd (QBE); Paul Redington (Zurich Insurance); Andrew Creedon (FloodRe); Graham Trudgill (British Insurance Brokers' Association); Robbie Craig (Defra); Jessica Lamond (University of West of England); Joey Tabone (Business in the Community); Tim Harries (Kingston University); John Stobart (British Damage Management Association).
Task Group 3	Matthew Barker (BRE), Dr Stephen Garvin (BRE); Tim Harries (Kingston University); Sue Highmore (Thomson Reuters); Leigh Jackson and Martin Friel (AXA Insurance); Joseph Priestley and Sophie Timms (Zurich Insurance); Andrew Poole (Federation of Small Businesses); John Alexander (Aquobex); Martin Dolan (Aquobex/Oxford Brookes University); Robbie Craig (Defra); Roger Street (UK Climate Impacts Programme)
Task Group 4	Dr Stephen Garvin (BRE), Graham Brogden (BERG/Aviva); Robbie Craig (Defra); Allen Creedy (Federation of Small Businesses); Alan Cripps (RICS); Joey Tabone (Business in the Community); Kevin Blunden (Chartered Association of Building Engineers); Elaine Toogood (Concrete Centre); Rob Dakin (AXA Insurance); Ralph de Mesquita (Zurich Insurance); Ian Marsh (Saga); Nick Price (Department for Communities & Local Government); Neil Curling (Lloyds); Andy Thornley (British Insurance Brokers' Association); Peter Caplehorn and Duncan King (Construction Products Association); Laura Hughes (Association of British Insurers); David Balmforth (Institute of Civil Engineers); Alastair Mosley and Alastair Chisholm (Chartered Institution of Water and Environmental Management); Clare Price (BSI); Andy Tagg (HR Wallingford); Ian Gibbs (Sergon); Sue Illman (Community Interest Companies); Jessica Lamond (University of West of England); Robyn Pender (Historic England); Steve Hodgson (Property Care Association); Jon Stodart and Mike Waterfield (British Damage Management Association); Martin Dolan (Oxford Brookes University); Geoff Edgell (Lucidien); Paul Shaffer (CIRIA); Frank Kelly (UK Floods Partnerships); Paul Everall (LABC); Allister Smith (Aviva); Phil Henry (UK Rainwater Management Association); Peter May (JBA Consulting); Adrian Rushworth and Phil Foxley (Environment Agency); Debi Graft (Scottish Government); Rob Bland (Direct Line Group); Sarah Kostense-Winterton (MIMA); David Kelly, John Holden, Graeme Hannah and Matt Barker (BRE).
Task Group 5	Carol Holt (Environment Agency); Matthew Barker (BRE); John Parvin (Zurich); Philip Wilbourn (Environmental Surveyors); Peter May (JBA Consulting); Hannah Fluck (Historic England); Andrew Poole (FSB); Andrew Lynch (Trident BC); Mary Dhonau (Mary Dhonau Associates); Graham Brogden (Aviva); Mark Calvert (Adler and Allan); Nishi Mayor (Business in the Community); Eleanor Blundell, Suzanne Hamblin-Boone, Rhiannon Clancy (Environment Agency). From 2018: Paul Cobbing (National Flood Forum)
Task Group 6	Gary McInally (Flood Re); Bev Adams (Guy Carpenter); Jessica Lamond (University of the West of England); David Balmforth (MWH Global); Robert Dakin (AXA Insurance); Dr Stephen Garvin (BRE); Ian Gibbs (Sergon); Iain Hamilton (Aviva); Peter May (JBA Consulting); Andy Mores (Environment Agency); Dr Maurizio Savina (RMS); Stacy Sharman (Defra); Sheri Amouzad (Oxford Brookes University).

<sup>\*</sup>BOLD = Chair of the Task Group as of December 2017

