Flood Re - 2023 ClimateWise Report

Disclosure of actions taken in line with ClimateWise principles across Flood Re business activities

Flood Re

Flood Re Limited (hereinafter 'Flood Re' or 'the Company') is the Scheme Administrator for the Flood Reinsurance Scheme ('Flood Re Scheme') and is principally engaged in the provision of flood peril reinsurance cover within the UK. The Flood Re Scheme is a joint initiative between the UK insurance industry and the UK Government. The Flood Re Scheme was established by the Water Act 2014. The scheme will run until 2039, at which time it will exit the market. Further details of the Scheme can be found on the Company's website at www.floodre.co.uk.

Flood Re Limited's purpose is to promote the availability and affordability of flood insurance for eligible homes, while minimising the costs of doing so, and to manage, over its lifetime, the transition to risk-reflective pricing for household flood insurance.

In order to do this, Flood Re Limited provides reinsurance cover at a subsidised fixed rate to cedants, resulting in an expected underwriting loss each financial year. The Company finances this through a £135m Levy (reduced from £180M on 1 April 2022) on UK household insurers. The Levy also finances the purchase of an outwards reinsurance programme to protect the Company up to a £2.1bn (2022: £1.9bn) maximum Liability Limit.

Flood Re Limited is a mutual reinsurer and was incorporated in August 2013 as a private UK Company limited by guarantee. Regulations designating the Flood Re Limited Scheme came into force on 11 November 2015, providing Flood Re Limited with the power necessary to fulfil its purpose.

On 1 April 2016, Flood Re Limited was authorised by the Prudential Regulatory Authority (PRA) and the Financial Conduct Authority (FCA).

Flood Re Limited launched on 4 April 2016.

Summary/Overview

Climate change has been a priority for Flood Re since 2019. This has involved strategic discussions through 2020 and 2021, which made incorporating climate into the organization's thinking a top priority through ongoing work such as the Own Risk Solvency Assessment (ORSA) process. This developed into concrete initiatives through 2022 and 2023, geared towards mainstreaming adaptation – notably the 2022 launch of the world-first Build Back Better program to ensure that homes receiving claims monies after a flood can build back more resiliently, for which Flood Re was awarded the Sustainability Initiative of the Year Award at the British Insurance Awards, among others. Flood Re's 2023 Transition Plan constituted 2023's major initiative and is described throughout this response. For the sake of brevity, this 2023 response has tried to focus as much as possible on activities that have taken place over the last year (August 2022-July 2023), and list past activities only where they relate to or inform ongoing processes. Detailed information on past years' activities can be found in past ClimateWise reports – 2022 ClimateWise response, 2020 ClimateWise Response.

1. Be accountable

1.1. Ensure that the organisation's board is working to incorporate the ClimateWise Principles into business strategy and has oversight of climate risks and opportunities.

Climate change has been a top area of focus for Flood Re's Board since 2019, when the Board Strategy Day focused on the impact of climate risk on Flood Re's purpose. Since that time, this focus on climate and discussions at the Board level have deepened each year, moving to encompass not only business-focused processes such as the Own Risk Solvency Assessment (ORSA), but also the delivery of significant climate-adaptation-focused programs such as Build Back Better. This deepening focus on climate has continued this year, through the ORSA and risk assessment processes, research projects such as examining potential climate impacts on flood defence performance and the next phase of the scoring mechanism for Property-Level Flood Resilience (PFR) measures, and major discussions of the implications of climate and the policy environment needed to address growing flooding risks – especially related to the 2023 Transition Plan (see below) and its initiatives/commitments. While climate-focused matters were discussed at just under half of Board meetings in previous years, climate-focused discussions appeared on the agenda of all but one Board meeting in 2022-23.

- Flood Re's 2020/21 Own Risk and Solvency Assessment (ORSA) identified four major risks to Flood Re successfully transitioning out of the market in 2039: climate change, housing development, insufficient investment in flood defences, and lack of homeowner awareness of flood risk and investment in property level resilience measures. These have continued to be tracked in Flood Re ORSA reporting, with the 2023 ORSA discussed and approved by the Board in June 2023. The 2023 ORSA includes climate change as one of the key cross-cutting drivers of risk for Flood Re and a focal point throughout the document, with specific sections on stress and scenario testing near term implications of climate change on the Flood Re Scheme (see below), as well as highlighting the five dimensions of how climate will affect the business (reinsurance scheme operation, transition and exit, financial reporting/disclosure, investment considerations, and corporate social responsibility see Appendix A). The slide at Appendix B (taken from this year's ORSA report) expands on these 5 angles and sets out the Board's responsibility for assessing the risks and opportunities associated with climate change to the Flood Re scheme, alongside highlights of work delivered to date and planned for the next year. More detail on this process is in section 2.1.
- Within the 2022-23 Annual Report and Accounts¹, details are found on pages 10-11 (Statement by the Chair, under sub-heading "A future overshadowed by a volatile climate"); pages 13-14 (CEO Statement, under sub-heading "Adapting to protect against a volatile climate"); page 19 (Strategic Report, noting assessment of CO2/GHG emissions and the likely climate pathway), and page 23 (actions from COP27). Excerpts from the Chair's and CEO's statement have been included at Appendix C.
 - Flood Re has developed a set of leading indicators to monitor factors that will affect Flood Re's goal of exiting the market in 2039. These include the impact of climate change on the problem of flooding, with tracking of CO2 pathways (see Appendix D). The top-level indicators have been reviewed by the board annually, were first published in Flood Re's 2021 Annual Report, and are now included in every Annual Report. These indicators were greatly expanded into detailed description and

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¹ https://www.floodre.co.uk/wp-content/uploads/Flood-Re-Annual-Report-2023.pdf

- analysis in pages 23-49 of the 2023 Transition Plan² (see next point, and sections 1.2 and 5.2), with specific discussion of the GHG/climate pathway on pp 30-31, and climate implications noted for nearly all of the other 12 factors examined.
- Flood Re's Transition Plan was one of Flood Re's major initiatives for 2023, constituting a statutory and public-facing document that sets strategic direction for the scheme in terms of its exit from the market in 2039. Climate change and long-term flood risk (with heightened flood risk the most significant anticipated impact in the UK), and implications for the insurance sector are identified as a central challenge that the plan seeks to address. With the Flood Re scheme representing an important mechanism for the UK insurance industry to adapt to the impacts of a changing climate, the plan describes and/or quantifies factors contributing to different dimensions of flood risk, makes a call to action and recommendations for actions by government and the insurance sector to build resilience, and outlines Flood Re's commitments in this regard. The plan will guide the scheme's strategic priorities for the next five years, with climate adaptation at the heart of these activities (see more in sections 3.1 and 5.2). A key point in the development of this document was the 2022 Board Strategy day, where presentations on long-term flood risk (from the Environment Agency), insurance industry trends with a heavy focus on climate (from a board member of the ABI), and householder experience, following which, Flood Re's Board decided on priorities and initiatives for the Plan's development and actions.
- The Bank of England produced its 2021 Climate Biennial Exploratory Scenario (CBES) which outlined transition risks to the financial and insurance industry. Flood Re collaborated extensively with BoE staff since 2019 in assembling particularly the flood scenarios, and the version published in 2022 included a specific discussion of Flood Re and its 2039 exit from the market. The scenarios have been discussed at the Board level as part of the 2021 December Board Strategy Day and incorporated into Flood Re's planning via the Stress Testing in the ORSA. Recently, the Flood Re team have shared insights from our 2022 review of available UK Flood Models and development of our internal/tailored view of UK Flood Risk, which included an assessment of how well the current day climate and climate change "in the system" is captured in the UK Flood Models.
- A project to quantify the group of potentially uninsurable homes was carried out (see detail in 1.2 next page), which was discussed at the November 2022 Board meeting, and subsequently at the 2022 Board Strategy Day in the context of the Transition Plan.
- In 2021, we launched the first phase of a property flood resilience (PFR) scoring methodology project intended to ultimately increase the take-up of property-level flood protection in high-risk areas. The initial phase of this work ran to early 2023, when a first set of findings and loss-damage curves were produced, which will underpin the scoring methodology. Phase II will continue through 2023/24, with the deliverable of a Minimum Viable Product for a "Flood Performance Certificate" which can be used by homeowners and industry (also a key commitment of the 2023 Transition Plan). This was also discussed at the 2022 Board Strategy Day in the context of Transition Plan initiatives.
- We continue to advocate for planning policy that takes into account climate change and the
 future costs of insurance, and the Board of Directors has received presentations from the Town
 and Country Planning Association (TCPA) and National Infrastructure Commission (NIC) on this
 topic during the 2022-23 Board cycle.

² "Our Call to Action" Transition Plan 2023-28 https://www.floodre.co.uk/wp-content/uploads/Flood Re Transition Plan report 2023.pdf

- A starting point for much of this activity was when Flood Re engaged with Sayers and Partners to use its Future Flood Explorer model to analyse the projected number of homes that will be at high risk of flooding out to the 2080s. The results of this analysis were the basis of a December 2019 Board and Executive Committee Strategy day, which shifted the organization's focus towards the medium- and longer-term risks to Transition, has previously been incorporated into both the Flood Re ORSA and Annual Report and Accounts, and continues to inform discussion and analysis of the topic up to and including the 2023 Transition Plan.
- In 2023, Flood Re conducted and published work with a third party model vendor on a project
 to examine how climate change interacts with flood defence performance over the scheme
 lifetime. The case study considers how defences perform under a severe event scenario for
 two urban areas, and for two emissions pathways. It shows how increases in defence standards
 of protection could offset projected increases in risk.

1.2. Describe management's (below board-level responsibility) role in assessing and managing climate-related risks and opportunities.

- Beneath the Board, Flood Re has a number of committees that discuss climate-related risks as a matter of routine given the threat of climate change directly on both Flood Re's operation as a catastrophe reinsurance vehicle and our long-term goal to transition out of the market in 2039. These include the Executive Committee and its sub-committees; the Transition Sub-committee, Reinsurance and Securities Sub-committee and Investment Working Group.
- As noted above, Flood Re's Risk Function (led by the Chief Risk Officer) and Transition Team (led by the Communications and Transition Director) initiated the work to analyse the projected number of homes that will be at high risk of flooding out to the 2080s.
 - A further project to quantify this group of potentially uninsurable homes was completed in March 2023 by Flood Re's actuarial team and Guy Carpenter, looking at different potential risk factors and the level of properties ceded to Flood Re. This analysis informed the 2023 Transition Plan with partial results published on p49 of the plan. It identified a range of 200,000 to 600,000 homes at risk of uninsurability without the Flood Re scheme, and the analysis has and continues to inform discussions with insurers. A potential next step for this analysis will be to overlay the medium term implications of climate change. As it stands this work takes forward our understanding of the potential size and uncertainty associated with the protection gap/market disfunction the Flood Re scheme was launched to manage and clearly the implications of climate change are a material headwind to managing this protection gap down in advance of 2039 exit.
- Flood Re's CRO, Chief Actuary, and Head of Transition engaged with regulators to ensure stakeholders (such as insurance companies and mortgage underwriters) take into account the exit of Flood Re from the market in 2039 as stipulated by statute. Since 2019, Flood Re has engaged throughout the CBES process to ensure that the scenarios, which run until 2050, to ensure insurers explicitly consider the exit of the Flood Re Scheme out of the market in 2039, as detailed in Section 2, Box A of the CBES report published on 24 May 2022³. Flood Re continues to engage with the ABI and the mortgage lending community to ensure consideration of the issue of insurance affordability and Flood Re's 2039 exit.

³ https://www.bankofengland.co.uk/stress-testing/2022/results-of-the-2021-climate-biennial-exploratory-scenario

- Flood Re also shared suggestions for government actions that were recommended by insurers in a joint capacity-building workshop with the Town and Country Planning Association (TCPA) for local authorities in June 2022⁴. Over the last year, working in partnership with the TCPA, Royal Town Planning Institute (RTPI) and the Environment Agency, Flood Re held four online training webinars for local authorities, with over 1500 attendees in total. Technical topics covered at the workshops included surface water flooding, Strategic Flood Risk Assessments and the updated Planning Practice Guidance for Flood Risk and Coastal Erosion. Flood Re also worked with the TCPA to ensure these themes were reflected in the TCPA-RTPI 2023 edition of their joint guidance "The Climate Crisis a guide for local authorities on planning for climate change"⁵.
- As mentioned earlier, Flood Re's Transition and Risk teams maintain a list of Leading Indicators to monitor and report on progress related to climate change and mitigation efforts aligned with Transition Strategy Buckets initially devised in 2018⁶. This reports annually on the current position of each area of Transition in a similar manner to the Committee on Climate Change's Annual "Progress Reports". The graphics below show (1.2A) the indicators as reported in Flood Re's 2021 and 2022 Annual Reports⁷, and (1.2B) an excerpt of the expanded version from the 2023 Annual Report which contains additional commentary, and where the GHG pathway indicator has been moved up to a more prominent position. This work was expanded and reported in even greater detail in section 2 of the 2023 Transition Plan, covering pages 23-49 of the report, as well as proposals for actions and programs to make progress in adapting to climate impacts later in the document. More on this can be found in 3.1 and 5.2 below.

⁴ https://www.bankofengland.co.uk/stress-testing/2022/results-of-the-2021-climate-biennial-exploratory-scenario

⁵ https://www.tcpa.org.uk/resources/the-climate-crisis-a-guide-for-local-authorities-on-planning-for-climate-change/

⁶ Flood Re Our Vision: Securing a future of affordable flood insurance, page 5. See https://www.floodre.co.uk/wp-content/uploads/2018/07/Flood Transition2018 AW.pdf

⁷ Most recently in <u>Annual Report and Accounts 2022</u> <u>https://www.floodre.co.uk/wp-content/uploads/Flood-Re-Annual-Report-2022.pdf</u> p22

1.2A – full list of transition indicators as included in 2021/22 Flood Re Annual Reports

| Transition Area | Progress Assessment | Leading Indicator/ Expert Judgement |
|--|---------------------|--|
| Reduce the risk of flooding | | Level of flood defence investment Extent of housing development in the floodplain |
| Reduce the damage and cost of flooding | | British Standard for flood resistance products Level of engagement of community with flood groups Number of properties that benefit from PFR Overall cost and time taken to settle claims |
| Achieve an effective market | | Flood modelling use in risk-reflective pricing and awareness Effective level of Flood Re subsidy ("rate shock") Householder flood risk awareness of their home Engagement with insurers at strategic and operations level |
| Limits of affordability | | Number of households at highest flood risk Support for those at highest risk post-Flood Re CO₂ emissions and the likely "climate pathway" |

1.2B – Indicator Area 1 with Commentary, from 2023 Flood Re Annual Report (p19)

| Transition Area | Progress Assessment | Key Indicators |
|--------------------------------|------------------------|--|
| Reduce the risk of flooding | | Investment in flood risk management and defences Extent of housing development in areas of flood risk CO2/GHG emissions and the likely climate pathway |

Flood Re's Summary Assessment: Government is increasingly active in terms of spending and policy to address flood risk, supporting defences and measures to keep pace with increased risks. But headwinds are growing as we now know much more about the likely effects of climate change on UK flood risk, these impacts now recognised as being to some extent unavoidable.

Action remains urgent and a similar focus is now needed on adapting to climate change and meeting the risks it poses. The UK needs to ensure that guidance not to build new housing stock in areas that are at risk to flooding is followed and enforced.

Flood Re has been active in supporting a range of research work to develop implementable options for more resilient homes and communities, in capacity building work so these and other best practices can be implemented, and in advocating for the Government to maintain its focus on flood resilience. Continued vigilance and action by those partners in industry and in Government is needed because we need to increase action in the face of growing headwinds. Government expenditure aims to hold risks constant. However (as noted by the National Infrastructure Commission and Climate change Committee in their March 2023 assessments of UK risks), rising climate risks and growth of at-risk UK housing stock is slowly but steadily increasing the total level of risk.

2. Incorporate climate-related issues into our strategies and investments

2.1. Evaluate the implications of climate change for business performance (including investments) and key stakeholders.

Climate Change and its implications for UK Flood Risk cuts across both aspects of the Flood Re Scheme's Strategic Purpose, namely to:

- (1) Promote the Availability and Affordability of flood insurance for eligible homes, while minimising the cost of doing so, and
- (2) 2039 Transition to risk reflective pricing for household insurance, for those households at risk of flooding.

In the case of the first element of Flood Re's purpose, the efficient operation of the Reinsurance Scheme in the short/medium term, the potential implications of climate change are:

- Further emergence of Climate Change and impacts on UK Flood Risk;
- Behavioural changes on the part of ceding insurers; and/or
- Change in appetite of our outwards reinsurers.

Each can impact the Scheme's forward looking risk profile and as such have been explicitly considered by the Flood Re leadership team (Board and Executive Committee) through a range of short/medium term stress and scenario tests (set out in Section 2.2 below).

With regards to the second aspect of our purpose, Climate Change clearly presents a long-term threat to Flood Re's 2039 Transition Objectives – specifically through upward pressure on UK household flood risk – and is described in considerable detail throughout our 2023 Transition Plan. The Plan makes recommendations for action by our partners and commitments for action by the organization to address these risks (detail in 3.1 and 5.2).

A longer-range, UK-wide (all properties) set of scenarios have been considered to assess the impact of various climate change pathways and public policy initiatives on 2039 transition. The results of this analysis are set out in Section 2.2 below.

The above assessments have focussed primarily on the potential for Climate Change to impact insured losses and the Scheme's strategic objectives. With regards to asset-side impacts of climate change, given Flood Re's highly conservative investment portfolio (UK Government backed short term deposits, UK Government Bonds, and Cash at Bank), there are limited market transition/"Minsky Moment" risks for Flood Re.

The public purpose of Flood Re is supported by managing the implications of climate change on UK flood risk. Hence it is our view that our investment strategy should not go counter to this. Given Flood Re's focus on UK government short term deposits/bonds and noting the UK Government's Net Zero Targets (Climate Change Mitigation) and is the key stakeholder in delivering a number of elements of Flood Re's Transition Vision (Climate Change Adaptation), it is our view that these investments align with the Scheme's Purpose.

Flood Re is, however, considering whether use of our funds to support UK knowledge infrastructure can enhance the UK insurance (and construction) industry's ability to adapt to climate change both through increased understanding of risks, and more detailed information on the effectiveness of adaptation mechanisms. Our 2023 Transition Plan commits Flood Re to establish a Centre of Excellence in flooding research. Support for an initiative of this sort could potentially bring outsized benefit to the broader insurance community in terms of long-term risk reduction benefits – funding for the Centre of Excellence is being evaluated through 2023/24 as part of 2023 Transition Plan implementation described in section 3.1 and 5.1 below.

The implications of climate change as it relates to stakeholder risks are also regularly communicated to stakeholders. As noted throughout this submission, Flood Re officials actively worked with the Bank of England on its CBES scenarios to communicate these risks to the financial industry. The indicators (discussed further in sections 1.2 and 3.1) published in Flood Re's annual reports provide an additional channel of communication. The 2023 Transition Plan is heavily focused on how climate will affect different dimensions of flooding and insurability in the UK, and actions to be taken by ourselves and stakeholders to minimize the risk of future losses and damage, and the launch of the Plan was attended by over 120 stakeholders and received national coverage in the FT among other publications.

In 2024, Flood Re will make its proposals for its Quinquennial Review to the Defra Secretary of State, which set the scheme's parameters for the next 5 years in order to ensure the scheme continues to function effectively in the face of the risks (notably climate change) identified in the Transition Plan.

2.2. Measure and disclose the implications of climate-related issues for business performance (including investments) and key stakeholders. & 2.3 Incorporate the material outcomes of climate risk scenarios into business (and investment) decision making.

As noted in the previous section over the course of 2022/23, as we have since 2019/20, we continue to utilise stress and scenario tests to assess the implications of a range of Climate Change pathways, impacting both elements of Flood Re's Strategic Purpose. We use the PRA's "Framework for assessing financial impacts of physical climate change" as the common approach for each assessment, see the framework schematic below for the steps of each exercise:



The impacts of climate change on UK Flood Risk cut across a range of areas of the Flood Re Scheme. To aid with targeting our activity and messaging, there are three time-horizons over which we consider the implications of Climate Change for Flood Re as per the diagram below.

Short Term Climate Horizon -Medium Term Climate **Next 5 Years** Horizon - Up to 2039 Exit Focus on the behavioural (Insurer,

Reinsurer, Bank) responses alongside the shift in UK Flood Risk from current climate and change already in the system and impact on Flood Re as reinsurance scheme

Focus on Transition Activity and "The Pier" (Number of UK Properties at high risk of Flooding), alongside plans for Flood Re's Exit.

Long Term Climate

Set out below are the details of each exercise (from 2019 to 2023) and the approaches taken to disclose and share the results and next steps from each. Appendix A provides an overview of the 5 dimensions of climate change that Flood Re has integrated into its work since 2019 (for the scheme's operation, its exit, disclosure, investments, and Corporate Social Responsibility).

1) Climate Change - Operation of the Reinsurance Scheme (Short/Medium Term Risk)

2019/20 Initial Comparison of UK Flood Models - Climate Change Modelling & GIST 2019: In 2019 and alongside the PRA's 2019 General Insurance Stress Test (GIST) exercise we sought to understand how UK Flood Risk may be impacted over a range of climate change pathways/emissions and response scenarios. This initially focused on modelling the impact of Climate Change on Flood Re's portfolio to provide a base for comparing a selection of UK Flood models that incorporate climate change impacts. To further allow consistent comparison of the models' assessment of Climate Change we also sought to fix the scenarios/GHG emissions scenarios being assessed, and used the PRA's 2019 GIST scenarios as the common base. The three GIST Scenarios considered a range of pathways and time periods.

Disclosure: The results of Flood Re's 2019 GIST Climate Change Scenarios have been shared and discussed with the PRA, who published their industry-wide feedback (Annex 4).

Informed Decision Making: Results of the GIST 2019 analysis provided the basis for comparing various UK Flood Model's climate change projections and their various strengths and limitations in order to select the right tool for the job moving forward.

• 2019/20 - Short / Medium Term Behavioural Changes of Key Counterparties (Insurers and Outward Reinsurers): As the GIST 2019 exercise was industry-wide and required consistency of outcomes, it considered Flood Re's exposure as point in time and static. For our 2019/20 Own Risk and Solvency Assessment (ORSA), we took this a step further to consider material behavioural change on the part of our major counterparties as a result of shifts in their view of climate change and UK Flood Risk.

For this assessment, we delivered a range of scenarios assessing the solvency implications of a shift in the risk appetite of both our ceding insurers (increased ceding to Flood Re as perception of UK Flood Risk changes) and our outwards Reinsurance counterparties (increased cost of outwards cover). Given our considerable capital position the Scheme remained well within its Solvency Risk Appetite Thresholds in each of the scenarios.

Disclosure: The Flood Re ORSA Report with the results of these scenarios has been shared with a range of stakeholders including the PRA and rating agencies. A summary of our ORSA Stress and Scenario testing is included in our annual (publicly published) Solvency and Financial Conditions Report (SFCR).

Informed Decision Making: The ORSA Climate Change stress testing analysis tested the scheme under a range of adverse scenarios to help inform our cycles of business planning and future decisions around structure of outwards RI and other business levers within Flood Re's control after its next Quinquennial Review (Setting Levy 1, Liability Limit).

2021/22 – Representation of Current Climate in UK Flood Models: As a follow up to the GIST 2019 Climate Change modelling comparison, in 2021/22, Flood Re's Head of Catastrophe Modelling completed a quantitative and qualitative review of the capture of retrospective climate change within vendor models used for present day risk. Results show relatively low materiality that varies by vendor and approach used to sensitivity test impact.

Disclosure: Given the sensitive nature of this analysis (company IP) work has predominantly been shared internally, although we are working with Flood Model Vendors to develop case studies on this work to share publicly. The inclusion of a "near term climate change" overlay in our modelling was reviewed and approved by the PRA as part of our recent Flood Model Selection/View of Flood Risk Major Model Change.

Informed Decision Making: This work is fed into and supported updates in (a) Flood Re's vendor model selection (delivered in 2022/23) and (b) our view of UK flood risk and hence is ultimately being used to calculate our Solvency Capital Requirement and aid the design, structure and pricing of our next outwards reinsurance programme as well as support the setting of key Flood Re Parameters (Liability Limit, Levy 1 etc) in the next 3 year cycle.

2022/23 – Updated Short / Medium Term Behavioural Changes of Key Scheme Stakeholders
(Insurers and Outward Reinsurers): In preparation for the next three year cycle (2025/26 to
2027/28) this year's ORSA activity focussed on assessing scenarios of risk appetite / behavioural
change of Flood Re's key users and stakeholders (Cedants and Outwards Reinsurers). These
included scenarios where ceding behaviour (policy volumes) and risk appetite (capacity and
cost of outwards RI) were impacted by perception changes in view of flood risk due to climate
change.

Disclosure: A summary of our ORSA Stress and Scenario testing is included in our annual (publicly published) Solvency and Financial Conditions Report (SFCR). The findings and

implications of this analysis also supported the "Call to Action" set out in the most recent Transition Plan (published in July 2023)

Informed Decision Making: This Stress and Scenario Testing activity and the results from it are at the very heart of taking forward our Scheme Parameter setting, inward premium strategy and plans for structuring and placing our next three year reinsurance programme.

2) Climate Change Implications for 2039 Flood Re Transition (Medium/Long Term Risk)

• To assess the longer-term impact of Climate Change on UK Flood Risk and hence risk to a successful 2039 exit out of the market we worked with the model and results from the last Climate Change Risk Assessment (CCRA)⁸.

By 2039, assuming a four-degree warming scenario, 1.5 times as many properties may be at a high-risk of flooding, increasing from 860,000 to 1.3 million properties given current levels of adaptation/flood defence spend and low population growth (housing development). The implications of this increased risk were fundamental to the analysis, vision, and recommendations contained in the 2023 Transition Plan, which was concerned with actions necessary to develop resilience to increased risks driven in large part by climate change.

Projected number of UK properties at high-risk of flooding (with a 1 in 75 or greater annual probability of flooding) by climate change scenario



Disclosure: For an overview of our consideration and disclosure of the impact of Climate Change on Flood Re's Strategic Objectives, see pages 26-29 of our <u>Annual Report (YE 2019/20)</u> and pp 30-31 and 52-53 of the 2023 Transition Plan.

Informed Decision Making: Climate Change has been acknowledged as a key threat to a successful 2039 Transition since the launch of the Flood Re Scheme, and this analysis has further reinforced that point. The modelling has also provided us with the basis to consider other variables (including property development, increased flood defence spending) impacting UK household flood risk in 2039, and work through "what needs to be true" to manage these risks to Transition. This has in turn supported proposals in our first Quinquennial Review (Build Back Better) and our 2023 Transition Plan. This ongoing work by Flood Re's Board and staff continues to be reflected in our Annual Reports, including the Transition Indicators workstream outlined in

⁸ Climate Change Risk Assessment 2017 Projections of future flood risk in the UK, page 63 https://www.theccc.org.uk/publication/sayers-for-the-asc-projections-of-future-flood-risk-in-the-uk/

section 1.2 and 3.1, as well as the ORSA process and the implementation of Transition Plan actions.

One opportunity Flood Re identified from this work has been to increase its engagement with the planning sector to ensure that new homes and developments are not built in areas at high risk today or where risk is expected to increase in the future.

Since 2020, Flood Re has had active workstreams around research and influencing concerning the importance of incorporating assumptions of insurance availability in development. In 2021-2023 this was reflected in capacity-building workshops and joint policy advocacy with the TCPA, joint 2023 release of a guide to the climate crisis for local authorities, and influencing work around planning, all of which are detailed in section 5 below.

2022/23 – Quantifying the Size of the Current UK Flood Insurance Protection Gap: A further
project to quantify this group of potentially uninsurable homes was completed in March 2023
by Flood Re's actuarial team and Guy Carpenter, looking at different potential risk factors and
the level of properties ceded to Flood Re.

Disclosure: This analysis informed the 2023 Transition Plan with partial results published on p49 of the plan. It identified a range of 200,000 to 600,000 homes at risk of uninsurability without the Flood Re scheme, and the analysis has and continues to inform discussions with insurers.

Informed Decision Making: Alongside being used to support Flood Re's "Call to Action" in the most recent Transition Plan, a potential next step for this analysis will be to overlay the medium term implications of climate change, as it stands this work takes forward our understanding of the potential size and uncertainty associated with the protection gap/market disfunction the Flood Re scheme was launched to manage and clearly the implications of climate change are a material headwind to managing this protection gap down in advance of 2039 exit.

<u>Remuneration</u>: Flood Re's remuneration policy includes a performance-based bonus scheme that directly links the compensation of staff to the achievement of the company's strategic objectives, which are linked to climate change as outlined in 2.1 above. The performance-based bonus scheme award maximum expressed as an additional percentage of an individual's base salary (10%, up to 30% in some cases), with 33% of the bonus amount determined by an annual committee evaluation of the company's progress towards its strategic objectives.

The company objectives include:

- Delivery of the 2023 Transition Plan.
- Completing full alignment to TCFD requirements, and become a TCFD Supporter.
- Normalize Build Back Better, Deliver support for increased uptake of property-level flood resilience (PFR) measures, and Develop a robust scoring mechanism for PFR.

Examples of specific personal/individual objectives over the past year with climate change linkages include delivery of COP26 and COP27 events, incorporation of climate risk into model outputs, delivery of the climate guide for local authorities in conjunction with partners, and promoting and enabling better flood risk management and resilience (with variations of the latter being an objective for numerous Flood Re staff).

3. Lead in the identification, understanding and management of climate risk

3.1. Ensure processes for identifying, assessing and managing climate-related risks and opportunities are integrated within the organisation (including investments).

- Flood Re has a number of ongoing processes to ensure we are identifying, assessing and
 managing climate-related risks and opportunities, including our emerging risk processes, annual
 Board/ExCo horizon scanning, our use of Transition Leading Indicators, and our Transition Plan,
 each of which are detailed throughout this document.
- Flood Re's Transition Plan represented a major focus for the organization in 2023, with the goal of understanding and helping to manage climate risks not only within the organization, but nationally across the UK. This plan/project incorporated numerous processes related to the understanding and management of climate risks:
 - The Transition Leading Indicators have been described in 1.2 and 5.2 (and graphics 1.2A and 1.2B), and represent a rigorous process of measurement of different dimensions of risks, covering the GHG emissions pathway, the number of homes at risk of future uninsurability, the insurance industry's engagement with climate and flooding issues, and 10 other risk dimensions.
 - The document attempted to detail the importance of a robust regime for flood risk management, particularly one that can maintain the UK's resilience in the face of climate change. Entitled "Call to Action: Rising to the challenge of climate change adaptation", this section detailed the potential climate impacts, and the broad actions that need to be undertaken by the government and industry to manage these risks.
 - The document made several commitments for Flood Re's own actions over the next 2-5 years: developing a scoring methodology for property flood resilience, developing a Centre of Excellence is flooding and resilience research, developing property Flood Performance Certificates, and working towards Build Back Better as an industry standard, among others. Each of these commitments currently has an active workstream with a corresponding company objective, which contributes to company-wide bonuses.
 - There was considerable outreach throughout the project to help create a national discussion and coalition of support. The indicators helped stimulate discussion with other relevant authorities, and also helped to inform the EA's work to develop national indicators (see section 5). Two workshops were held bringing together 50 and 70 stakeholders at the two sessions to discuss solutions, and a launch event was held with over 100 participants.
- Flood Re continues to incorporates the scenario work through its ORSA process (as set out in the previous section), through work on the 2022 CBES with the BoE (the latter being reflected back into Flood Re's thinking, as well as informing the wider industry), and continues its transition indicators work up to, including, and beyond its 2023 Transition Plan. Section 3 of the Transition plan ("Call to Action: Rising to the challenge of climate change adaptation") opens with:

"As outlined in the previous section, achieving a flood insurance market which is both risk-reflective and widely affordable is a significant challenge requiring action on a number of fronts. This section outlines the action needed to achieve Flood Re's vision.

The core challenge is to reduce the overall risk of flooding despite climate change. This will require a step-change in approach. Currently most flood defence spending is focused on

reducing long-standing flood risk in the UK. But climate change will increase the overall level of flood risk and give rise to increased unpredictability in weather patterns. So current action is not enough."⁹

- Flood Re has been active in monitoring, and actively participating in, climate-related discussions and advocacy, as well as regulation that affects our business and the wider industry. Occupying a unique role between government, the insurance industry, and academia, we actively work to understand risks and balance public policy objectives, ensuring not only pragmatic management of the scheme but catalyzing industry-wide action to address risks wherever possible:
 - Staff work to inform and incorporate the Bank of England's CBES process have been extensively detailed elsewhere. Flood Re is also monitoring the developments of the TCFD and how credit rating agencies are incorporating ESG factors, and has committed to TCFD alignment and disclosure in 2023 as well as becoming a formal TCFD supporter in June 2023.
 - o Flood Re's public policy activities are described in greater detail in section 5 below (and above under the Transition Plan, in some cases), including the world-first Build Back Better initiative, which will allow for increased spending on the flood resilience of homes, ongoing planning advocacy and capacity building intended to improve the flood resilience of new homes built across the UK, and transition activities that are innovating new approaches to industry-wide risk management (such as Scoring of Property-Level Flood Resilience/PFR measures, and Flood Performance Certificates/FPCs). Each of these initiatives will have a significant impact on Flood Re's climate-related liabilities going forward, as well as those of the wider insurance community.
 - Flood Re organised and participated in events prior to and during COP26 and COP27, with an 8-week programme leading up to the COP26 Summit, as well as a tour of communities by Flood Re taking the OxCam Pathfinder's Floodmobile en route to COP26, speeches by Flood Re's CEO at World Climate Summit panels at COP26 and COP27.

3.2. Support and undertake research and development to inform current business strategies (including investments) on adapting to and mitigating climate-related issues.

- As mentioned in section 1, to further understand the impacts of climate risks, Flood Re's Risk
 Function and Transition Team engaged with Sayers and Partners to use its Future Flood
 Explorer model (the same tool leveraged by the Committee on Climate Change for its "UK
 Climate Change Risk Assessment") to analyse the projected number of homes that will be at
 high-risk of flooding out to the 2080s. These have been incorporated into Flood Re's planning,
 with the exhibit shown above in response to principle 2.2 summarizing the results of FFE's
 combined scenarios which consider each of the aforementioned risks to transition.
- Building on work from in 2019-2020 on the viability of Flood Performance Certificates (FPCs),
 Flood Re has a new phase of work, in conjunction with the Environment Agency, Defra and
 Middlesex University, to pilot and develop methodology for scoring PFR measures and piloting
 FPCs. An EA flood management scheme to install property-level measures in numerous
 properties was used as a test-bed for standardising data collection, and trialling a mechanism
 to translate the implementation of specific PFR measures into a resilience rating and the
 development of loss-damage curves, with final reports from Phase 1 provided to Flood Re and
 presented to industry stakeholders at the PFR roundtable in March 2023.

⁹ https://www.floodre.co.uk/wp-content/uploads/Flood Re Transition Plan report 2023.pdf p51

- Flood Re's Transition Plan, outlined in 3.1 above, involved considerable research, notably in expanding the transition leading indicators from high-level summaries in our annual reports, into the "State of the Nation" section covering pages 22-49 of the report.
- Flood Re published a <u>report into the Property Flood Resilience sector</u>, outlining the size of the sector and its key markets, key dynamics and challenges¹⁰. The report was published in March 2023, with the primary goal of helping insurers to be able to better implement Build Back Better. It was also undertaken in part to provide Defra with actionable information that it could use in its PFR roadmap, a commitment made by previous Defra ministers.
- Flood Re collaborated with a third party model vendor to examine how climate change
 interacts with flood defence performance over the scheme lifetime. The case study considered
 two urban areas in the UK, and how defences perform under a severe event scenario for two
 emissions pathways. The study considered how increases in defence standards of protection
 could offset projected increases in risk, with expected release in late summer 2023.
- Flood Re has become a research partner in the Wyre Valley Natural Flood Management (NFM) project, which will trial an innovative approach to natural flood management, with both adaptation and mitigation benefits. The project went live in March 2022, and is described in greater detail in section 5.2 Flood Re continues to actively participate in the project.

Future work:

- A further phase of the scoring/FPC work noted above is being develop for 2023 that will
 incorporate this methodology into prototype FPCs for actual homes under real flooding
 conditions, and establish the user case and mechanisms necessary to implement this
 mechanism more broadly in the market. This work will support the rollout of the Build Back
 Better campaign and PFR measures described in greater detail in section 5 below.
- Flood Re is commissioning a research project to March 2024: "Delivering flood risk mitigations through the planning system in England: Understanding opportunities, challenges and barriers with a focus on the post-consent and enforcement process." Considerable focus has been placed on the consent system and the granting of planning permission for new homes, and this project will look at the post-consent process to determine how authorities are able to ensure that that conditions placed on planning consents are being delivered in practice. This project will include developers and architects in the stakeholder group.
- In 2023/2024 Flood Re will continue its ongoing monitoring of the state of the field for understanding the impact of climate change on UK flood risk, as part of the continued development of its view of flood risk.
- In order to deliver on the commitment made in its 2023 Transition Plan, Flood Re is scoping the UK landscape for flooding and resilience research in the UK, in order to deliver a Centre of Excellence. This exercise will provide information on capabilities and gaps in the UK research ecosystem in order to target an investment in research infrastructure that will address gaps and catalyze new partnerships in order to enhance flooding and resilience research in the UK. The scoping phase of this exercise will culminate in December 2023, and move towards implementation at the start of 2024. Details on pp.65-66 of the 2023 Transition Plan.

4. Reduce the environmental impact of our business

4.1. Encourage our suppliers to improve the environmental sustainability of their products and services, and understand the implications these have on our business.

¹⁰ https://www.floodre.co.uk/wp-content/uploads/20759 Flood Re PFR-Report 2023.pdf

In 2023, Flood Re began using ESG criteria as one of the criteria that bidders will be scored on in publicly-posted tenders to provide services to Flood Re. Flood Re's June 2023 Invitation To Tender for Consumer and Data Services included a requirement for any company bidding on the tender to include their company's ESG criteria or initiatives, which will account for 10% of the score. The criteria from that Invitation To Tender are included at Appendix E. This evaluation criteria will be the standard for Flood Re public tenders going forward, providing a concrete demonstration to Flood Re's suppliers of the value we place on Environmental and Social Governance and incentive for them to have strong ESG policies that will assist their scoring in any bids.

Flood Re remains a small organisation with only a few major suppliers with whom we have largescale ongoing collaboration. The company's four main suppliers and their respective ESG strategies are as follows:

- Guy Carpenter are our reinsurance brokers and support our catastrophe modelling capabilities. They have been working with us to understand potential impacts of climate change, as detailed in other sections. In their own practice Guy Carpenter is guided by Marsh & McLennan's standards of conduct, and are included in their ESG reporting, with their 2022 report showing progress towards their commitments (including achieving carbon neutral certification and reducing scope I, II, and business travel emissions) and outlining a company-wide commitment to net zero operations by 2050 and to reduce emissions by 50% by 2030, and maintaining certification as a carbon neutral company for all global operations¹¹. A UK example of their commitment to these principles is the renovation of their City of London offices with sustainability and wellness in mind – during construction, 98% of stripped materials were recycled, reused or donated and 100% of reusable furniture was donated to local charities.
- Addresscloud is a provider of technology for use by Flood Re participants via the Property Data Hub. As a company they are committed to reducing their environmental impact and have policies to minimise the use of paper, energy, water and fossil fuel use. With respect to carbon emissions, and as a remote company, they take two approaches -- first, offsetting employee emissions by investing in a range of carbon reduction and sequestration schemes; second, operating cloud infrastructure using a serverless architecture meaning consumption of cloud resources is scaled in real-time according to customer demand, enabling efficiencies and reduced energy usage. Their cloud provider is working towards 100% renewable energy supply for its data centres and already offsets emissions where renewable supply is not yet available. They have also been vocal in pressing the industry to effectively factor in and manage climate risks¹².
- risual Limited are one of our strategic partners providing IT Managed Services and Consultancy for project work. risual have a target to be carbon neutral by 2030, as published in their Carbon Reduction Plan. As such, risual have identified key aspects where they have a negative impact on the environment, namely heating and cooling, and travel to client sites for which risual have policies and systems in place to manage and reduce these impacts. risual undertakes an annual review of activities to understand their impact on the environment and to identify new ways of working to reduce carbon emissions. Additionally, risual calculate its Carbon Footprint monthly to monitor progression to their environmental objectives.
- Watertrace provides our Bordereau Management System (BMS). Their ESG program's purpose is to integrate sustainable business practices into operations, align company values with societal expectations, and create long-term value for all stakeholders. Their environmental

¹¹ https://www.marshmclennan.com/about/esg.html

¹² https://www.insurancebusinessmag.com/uk/news/flood/flood-consultant-issues-warning-to-insurers-414419.aspx

goals aim to reduce the carbon footprint of their digital infrastructure. Optimizing code for energy efficiency and using green energy providers. They have established a strategic roadmap to achieve goals over 1, 3, and 5 year time horizons, with metrics for energy consumption of servers, percentage of renewable energy used, quantity of e-waste recycled. They work with their infrastructure and services providers to ensure they align with those environmental goals, through the use of proactive communication, collaboration, and contractual agreements.

4.2. Disclose our Scope 1, Scope 2 GHG emissions and Scope 3 GHG emissions using a globally recognised standard.

Flood Re is classified as a large unquoted company due to its size in terms of turnover, measured in Gross Written Premiums and Total Assets. It is required to report in accordance with Streamlined Energy & Carbon Reporting ("SECR") legislation as at 31 March 2023 as a result. Energy use is calculated using the most up to date conversions factors provided by the Department for Business, Energy & Industrial Strategy (BEIS), published June 2022. The SECR is reported in detail in our 2023 Annual Report & Accounts¹³.

Our 31 March 2023 energy use was 470,405 kwh (2021: 438,767 kwh), and total emissions were 149 t/Co2e (2021 – 135 t/Co2e), reflecting a full-time hybrid working model with increased use of the office for most staff following 2022 being a more limited and partial use of office with greater working from home as part of a phased-in office use following the COVID-19 pandemic. In 2021 flood Re had 36 staff, which increased to 53 in 2022, and to 60 in 2023. Emissions per employee declined from 2.7 t/CO2e/employee in 2022 to 2.5 t/CO2e/employee in 2023.

4.3. Measure and seek to reduce the environmental impacts of the internal operations and physical assets under our control.

Flood Re is a 60-person company and our UK-only operations mean that travel requirements are limited. Most employees take public transport or cycle to work. Our partitioned office space, part of a set of offices within one larger building, limits our ability to manage energy usage. As areas of the whole building are variously in use or not, there is an underlying energy usage required for heating, lighting, security and systems maintenance that is unavoidable. Our allocation of the total energy usage varies as occupation throughout the building changes, therefore is largely outside our control. More extensive use of existing facilities over the last year did contribute to a slight decline in our emissions intensity ratio, ad Flood Re has actively worked to accommodate more employees in existing space through efficient use of facilities and processes.

There is limited opportunity to manage our investment-related climate impact as our investment portfolio comprises of deposits with the UK Debt Management Office throughout the year and investments in UK Treasury Gilts. Flood Re's focus is on UK government short term deposits/bonds – noting the UK Government's Net Zero Targets (Climate Change Mitigation) and role in delivering elements of Flood Re's Transition Vision (Climate Change Adaptation), it is our view that these investments are aligned with the Scheme's Purpose.

However, as noted above, Flood Re is examining whether support for knowledge infrastructure can contribute to the UK's ability to adapt to climate change both through increased understanding of risks, and more detailed information on the effectiveness of adaptation mechanisms. Our 2023 Transition Plan commits Flood Re to establish a Centre of Excellence in flooding and resilience research, and an exercise is underway to evaluate the business case for potential support.

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¹³ https://www.floodre.co.uk/wp-content/uploads/Flood-Re-Annual-Report-2023.pdf pp 32-34

- 4.4. Engage our employees on our commitment to address climate change, helping them to play their role in meeting this commitment in the workplace and encouraging them to make climate-informed choices outside work.
 - Beginning in September 2021 Flood Re engaged employees to ask what resources would be most useful to engage them to reduce their greenhouse gas emissions. Subsequently the Transition team offered periodic nudges to reduce employee CO2 emissions. These included keeping household heat set below 19 degrees, trying to limit short-haul trips or carpooling, offsetting air travel, sourcing second-hand items/ gifts when possible, and buying less CO2 intensive flowers on Valentine's Day. Going forward, additional nudges and/or reminders will be shared with employees to encourage them to reduce their CO2 impact.
 - Flood Re's Communications Team is currently collecting information from Flood Re staff on the
 actions they take in support of the environment, which will be shared amongst employees as
 part of a peer-group sharing and influencing campaign. These will also be shared on social
 media throughout autumn 2023 to publicly share examples of efforts that are being made by
 Flood Re staff.
 - Flood Re has been active sharing information with staff about environmental initiatives that the organization is involved in, often forming one of the topics at our monthly "Connect Days" when the entire organization comes together for sessions in our London office. Some topics at recent Connect Days include:
 - May 2023: Nature-Based Solutions and Biodiversity
 - o April 2023: Environmental Initiatives and ESG in the Insurance Sector
 - January 2023: Presentation from ex-chair of Environment Agency on risk management in time of climate change

5. Inform public policy making

5.1. Promote and actively engage in public debate on climate-related issues and the need for action. Work with policy makers locally, regionally, nationally and internationally to help them develop and maintain an economy that is resilient to climate risk.

Flood Re has engaged and influenced public policy in regulatory, policy and environmental matters, and made ourselves a useful partner for government and stakeholders. 2022 saw the policy changes to enable the Build Back Better scheme (with Flood Re helping with drafting and policy work), and the Bank of England's release of its CBES results. 2023 saw a deepening of public policy activity, an enhancement of capacity-building initiatives for the planning sector, and Flood Re engaging in discussions and collaboration at all levels of government and undertaking initiatives where useful to catalyze wider change -- notably with the release of the 2023 Transition Plan, its recommendations, and steps towards implementation of the initiatives and recommendations in the Plan (such as the Centre of Excellence in flooding and resilience research, which will develop over the coming year).

- UK Regulatory:
 - As mentioned under Principle 1, Flood Re's CRO and Chief Actuary have actively engaged with regulators since 2019 through the Climate Biennial Exploratory Scenarios process. This engagement will particularly focus on ensuring stakeholders such as insurance companies and mortgage underwriters take into account the exit of Flood Re from the market in 2039. This work was reflected in specific discussion of the Flood Re 2039 exit in the final scenarios, which was published on 24 May

- 2022¹⁴. As a result, participants in the CBES exercise are aware of the need to explicitly ensure they account for the exit of Flood Re (and the flood risk transfer mechanism it provides to households) and to adjust their underwriting approach after 2039.
- More recently (2022/23) the PRA have reviewed Flood Re's Flood Model Selection Exercise and our updated view of UK Flood Risk as part of a Major Model Change to Flood Re's Internal Model. This included results of the activity led by Flood Re's Head of Catastrophe Modelling to assess the impact of near term climate change (in the system) on UK Flood Risk and our approach to capturing this in the Flood Re Internal Model.

• UK – Policy (national):

- Flood Re actively worked with Defra officials and other stakeholders in order to design and implement the legislation underpinning the Build Back Better (BBB) scheme, for which Flood Re was awarded the 2022 Sustainability Initiative of the year award at the British Insurance Awards¹⁵, the ESG: Sustainable Claims Initiative of the Year Award at the Claims and Fraud Awards (October 2022), and the Excellence in Innovation Award at Flood Expo in Birmingham (October 2022). The scheme allows for any homeowner with a policy with a participating insurer, if affected by flooding, to receive up to £10,000 to rebuild their property with flood resilience and resistance measures. This enhances the resilience of the home to flooding, reduces damages and impacts, and saves needless waste that comes from having to replace materials following a flood. Following Parliamentary approval the BBB scheme went live in April 2022. This world first public-private initiative to drive behavioural change and increase take up of PFR. BBB represented a milestone for the insurance industry, in terms of overcoming the industry standard of restoring a property to its original condition with no betterment – building an industry-led coalition to implement the change required considerable and sustained effort by Flood Re. While the avoided emissions from not having to replace ruined materials will not be counted in Flood Re's own Scope III emissions, this can have a beneficial impact on decarbonizing the claims process of the insurers for which Flood Re provides reinsurance.
 - Flood Re undertook a <u>report into the Property Flood Resilience sector</u>, (see 3.2) outlining the size of the sector, its key markets, dynamics and challenges¹⁶. The report was published March 2023, with the primary goal of providing insights into the companies delivering resilience measures on the ground in order to help insurers to implement Build Back Better. It was also undertaken in part to provide Defra with actionable information that it could use in its PFR roadmap, a commitment made by previous Defra ministers.
- Flood Re's 2023 Transition Plan was 2023's primary policy and research output. The document contained:
 - An assessment of the "State of the Nation" in terms of the UK's flood risk as
 it relates to the future insurability and resilience of UK homes, as well as
 extensively discussed how climate impacts will affect this over time. This

¹⁴ https://www.bankofengland.co.uk/stress-testing/2022/results-of-the-2021-climate-biennial-exploratory-scenario

¹⁵ https://www.insuranceawards.com/2022-winners

¹⁶ https://www.floodre.co.uk/wp-content/uploads/20759 Flood Re PFR-Report 2023.pdf

included expanded analysis for each of the 13 indicators itemized in section 1.2 above, providing an assessment of how each contributes to an effective market for insurance and flood risk management in the UK. These indicators included specific discussion of the GHG/climate pathway on pp 30-31, and climate implications noted for most of the factors examined ¹⁷. This section provides a transparent measurement of different dimensions of risk in the country, which inform our strategic planning, and some of which we have also shared with the Committee on Climate Change, Environment Agency, and Defra for inclusion in their documents and strategic assessments.

- A Call to Action, entitled "Rising to the challenge of climate change adaptation" which provides recommendations for how to build resilience to and manage (down) flood risk in the UK in the face of climate change, including measures such as spending on flood defences and improving and enforcing planning measures widely supported by the insurance industry. These recommendations focused on national government and local authorities received national media coverage in the FT among others.
- A series of commitments for how Flood Re will contribute to building resilience and managing down these risks, including a Centre of Excellence, furthering Flood Performance Certificates and a scoring methodology for PFR (see 1.1, 3.2 and 5.2) and working to make Build Back Better an Industry standard¹⁸. The Plan also outlines benefits and implications of these commitments.
- Flood Re provided input and policy recommendations on a number of key government strategy documents over the past 2 years:
 - Flood Re's CEO sat on the external advisory committee of the Thames Estuary 2100 project run by the Environment Agency, and staff participated in working groups, with the project's report released in April 2023. The project seeks to maintain the resilience of the structures which protect the Thames Estuary, which defend more than 1.4 million people and £321 billion in assets.
 - The Environment Agency has a project to establish a national set of indicators for resilience to flooding. Flood Re participated in the working group to advise on these indicators, provided advice from the perspective of its transition leading indicators and internal datasets, and provided data on insurance availability that are expected to be used in reporting. A preliminary report was released in November 2022.
 - Regarding surface water risk, which represents the fastest and largest growing flood risk to insurers¹⁹, Flood Re was consulted by the National Infrastructure Commission as part of its review into UK surface water risk, released December 2022. The report aligned with Flood Re's views, referenced Flood Re and its initiatives, and was in turn useful to us by referencing its recommendations in the 2023 Transition Plan.
 - Continue to sit on the partners and delivery group for the Environment Agency's National Flood & Coastal Erosion Risk Management Roadmap, which

¹⁷ pp 23-49 https://www.floodre.co.uk/wp-content/uploads/Flood Re Transition Plan report 2023.pdf

¹⁸ See Flood Re Transition Plan, ibid, pp63-79

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¹⁹ Bank of England, Climate Biennial Exploratory Scenarios, May 2022, Chart 4.12: Largest increases in projected insurance losses result from the intensification of tropical cyclones in the US, and flooding in the UK.

- was released in June 2022. Flood Re was an external partner references throughout the roadmap document (see pp 7, 22, 28) as an example of collaborative delivery.
- Flood Re has been active in ensuring Flood management and resilience concerns are reflected in national planning policy. In addition to workshops held with the TCPA (noted in section 1.2 and in 'local' section below), Flood Re has actively worked with MPs to propose amendments to the proposed Levelling Up and Regeneration Bill, in collaboration with the ABI.
 - Flood Re's CEO was a joint signatory on two open letters to the new UK government in August and September of 2022, the first by UK CEOs urging the new administration to strengthen the economy by prioritizing the response to climate change, and the latter around government and industry working together to achieve a sustainable and resilient built environment. In December 2022, he was a signatory to a letter (along with 40 other expert bodies) urging the government to implement Schedule 3 of the 2010 Flood and Water Management Act (see below). In July 2023, he signed an open letter alongside the ABI and Aviva to advocate changes to proposed planning reforms to prioritize resilience²⁰.
 - Flood RE's CEO spoke on numerous panels on the topic of enhancing UK resilience and ensuring flood-resilient homes: panels at the 2022 Labour and Conservative Party Conferences, the Westminster Energy & Environment Forum policy conference, co-hosted a roundtable in February 2023 with the New Statesman in January to discuss planning elements of the Levelling Up and Regeneration Bill, and spoke on a panel on climate adaptation and resilience at the Nw Statesman Politics Live event in June 2023.
 - In February we supported the re-launch of the All Party Parliamentary Group on Flood Prevention, and in June supported Policy Connect's "Bricks and Water 3" report, which concerned planning changes to improve flood resilience, and included contributions from Flood Re.
 - Flood Re launched a joint communications campaign with the Environment Agency on flood awareness and resilient homes/Property-Level Flood Resilience in April 2023.
 - Flood Re was also active in supporting and lobbying for several major policy developments throughout in 2022-23:
 - Provided a consultation response for the Scottish Government's National Planning Framework 4, in support of the proposed approach integrating flood planning in street design, notably the use of Sustainable Urban Drainage Systems (SuDS)
 - Consistently lobbied in favour of the UK Government's now-announced implementation of Schedule 3 of the Flood and Water Management Act 2010, advocating for the adoption of Sustainable Drainage Systems. This included co-signing a letter to the Prime Minister in December of 2022. The government's planned implementation of Schedule 3 was announced in January of 2023.

²⁰ https://www.postonline.co.uk/personal/7953922/aviva-and-flood-re-call-for-planning-rules-to-be-overhauled

- Provided a consultation response supporting the Welsh Government's update to their technical advice note 15 concerning development and flood risk.
- Sat on two Committee on Climate Change Climate Change Risk Assessment 4 workshops focused on the built environment in July 2023, which will inform CCC recommendations to government on national adaptation policy actions.
- Flood Re has been active throughout 2022 and 2023 on encouraging policy development and best practices for Nature-Based Solutions, particularly Natural Flood Management. This included Flood Re Head of Research participation in ClimateWise's Nature Working Group, ABI's Climate Change committee and input into its 2023 nature guide, and participation on the Green Finance Institute's Natural Flood Management Working Group each of which used Flood Re as a case study in documents or discussions. A detailed list of these initiatives is included at Appendix F.
- Flood Re's first Quinquennial Review (QQR) concluded in 2022 following more than two years consultation and collaboration with Defra, Insurers and stakeholders. Following formal public consultation, the government accepted Flood Re's recommendations to: Implement the Build Back Better scheme; Adjust its levy to make it responsive to needs; Use funds for activities to support the transition to affordable risk-reflective pricing, including the uptake of PFR; Reduce the cost of premiums to provide relief to the lowest-value properties. Planning is underway from the next round of the Quinquennial review, with a cycle starting in 2024 with Flood Re's report to government on the functioning of the scheme.

UK – Policy (local):

<u>Planning</u>

- Since last year's ClimateWise report, Flood Re has held a further four online training webinars for local authorities, in partnership with the Town & Country Planning Association (TCPA), the Royal Town Planning Institute (RTPI), and the Environment Agency. These had over 1500 attendees in total, and covered the topics of surface water flooding, Strategic Flood Risk Assessments, and the updated Planning Practice Guidance for Flood Risk and Coastal Erosion.
 - Flood Re also sponsored and collaborated on the update to the TCPA/RTPI guide "The Climate Crisis a guide for local authorities on planning for climate change" to help local authorities to consider adaptation and resilience alongside net zero within local area plans.
- Flood Re sat on the UK Climate Change Committee's *Delivering net zero and climate resilience through the local planning system* March 2023 roundtable.
- Local authority stakeholders were consulted and supportive of Flood Re's 2023
 Transition Plan, which included recommendations for how to improve planning outcomes.
- Flood Re presented research on the experience of post-2009 property owners trying to access flood insurance to an ABI Property Steering Group meeting in June 2022.
- Building on work by Sayers and Partners on social vulnerability and Flood risk that was
 published by Flood Re in December 2020, Flood Re has also been providing subject matter
 expertise on the Rochdale Flood Poverty Project to assess opportunities to improve financial
 resilience in that deprived area that may be relevant to other communities. This work
 continues through 2023 and into 2024, with a new phase of the project expanding to
 consider energy efficiency/fuel poverty schemes alongside flood resilience considerations.

International

- O COP27: Flood Re's CEO attended and spoke on a panel at the World Climate Summit. At the previous year's summit/COP26, he had announced the intention to launch BBB, and at COP27 was able to present that it had received Parliamentary assent and launched, providing one of the world's leading examples of an insurer-led resilience program. He also announced the inclusion of a further 3 insurers in the BBB scheme.
- o Flood Re is a member of the World Forum of Catastrophe Programmes, which meets annually. Through this forum, Flood Re's CEO has provided considerable assistance to colleagues in other jurisdictions on setting up schemes modelled on Flood Re. In past years, he has provided extensive time and expertise to the Canadian government on their planned flood insurance scheme, and through 2021 and 2022 met with the Earthquake Commission of New Zealand (EQZ) on the design of their scheme. In 2023, Flood Re's implementation of the Build Back Better was a featured topic/case study.
- Flood Re's Director of Communications & Transition joined a UK government trade delegation to the US in March which focused on promoting the UK's knowledge and capabilities around flood and cyber resilience. The week-long trip, orchestrated by the Department of Business & Trade, comes under its remit to promote exports and attract inward investment for infrastructure. The UK delegation met with chief resilience officers, insurance regulators, the Federal Emergency Management Agency (FEMA) and the New York City Office of Climate and Environmental Justice amongst others, in visits to Miami, Washington and New York.

5.2. Support and undertake research on climate change to inform our business strategies and help to protect our customers' and other stakeholders' interests. Where appropriate, share this research with scientists, society, business, governments and NGOs in order to advance a common interest.

As mentioned above, Flood Re devotes significant resources collaborating and/or providing expert input on policies developed by stakeholders such as the Bank of England, the ABI, the Environment Agency, the Committee on Climate Change, the National Infrastructure Commission, academics and consultants concerning the implications of climate change on the insurability of homes. Specific research conducted touched on the following topics:

- Future housing risk As mentioned in section 1 and 3, to further understand the impacts of climate risks, Flood Re's Risk Function and Transition Team engaged with Sayers and Partners to use its Future Flood Explorer model to analyse the projected number of homes that will be at high-risk of flooding out to the 2080s, which was discussed extensively at Board level and led directly to the company's engagement with the planning sector and with the Bank of England.
 - Also mentioned, Flood Re's analysis of homes that may have difficulty accessing
 insurance once Flood Re exits the market was reported as part of its 2023 Transition
 Plan²¹, with some figures reported by national media, and analysis and results used
 to inform discussion with government and industry about future steps to ensure
 resilience.
- Flood Re's 2023 Transition Plan was 2023's biggest research output. It assessed the UK's flood risk as it relates to the future insurability and resilience of UK homes, extensively discussed how climate impacts will affect this, and made recommendations to build resilience in order to avoid risks materializing further detail in 3.1 and 5.1. The plan was assembled through a process that engaged nearly 100 stakeholders and launched at an event involving 100+ stakeholders from across industry, government, and academia, with the goal of advancing the

²¹ https://www.floodre.co.uk/wp-content/uploads/Flood Re Transition Plan report 2023-1.pdf pp48-49

- collaboration and knowledge base across these groups on climate adaptation. The plan's commitments (Centre of Excellence, Build Back Better, Flood Performance Certificates) had engagement and in-principle buy-in from the stakeholders who will be key to implementing these ambitious measures in the coming years in collaboration with Flood Re.
- Flood Re became one of the partners in the Wyre Valley Natural Flood Management (NFM) Pilot, which seeks to track the avoided losses due to natural flood risk management, and represents one of the leading projects for piloting a new business model for implementing nature-based solutions. The pilot went live in March 2022 and is testing an innovative structure to attract private sector investment to reduce flooding (amongst other benefits) through NFM. Partners in the project include Defra, United Utilities, the Environment Agency, Co-op Insurance, Esmée Fairbairn Foundation (EFF), The Rivers Trust and Triodos Bank UK. Flood Re has provided financial support for research and monitoring activities, and provided considerable staff time and expertise to develop the model to estimate benefits the impact of interventions and likely benefits (e.g. risk reduction). The project's revenue and benefit streams includes both adaptation (natural flood management) and mitigation (carbon sequestration) benefits. Landscape interventions are being implemented from 2022-24, and the project will run until 2031, measuring the year-over-year effectiveness of the measures. Flood Re continues to participate in the Wyre project monitoring and oversight, and regularly shares lessons learned from the project with other groups seeking to develop similar naturebased-solutions project with risk reduction/flood management aspects, and is using the learnings to explore the potential to partner with further projects.
- Building on work undertaken in 2019-2020 on the viability of Flood Performance Certificates (FPCs), Flood Re has undertaken work, in conjunction with the Environment Agency, Defra and Middlesex University, to run an innovative pilot in East Peckham. Using the opportunity of an ongoing EA flood management scheme to install PFR measures in multiple properties, the first phase of the project tested standardised data collection, a new PFR scoring mechanism and ultimately the use of Flood Performance Certificates in real conditions. The first phase of the project concluded successfully in March of 2023, with prototype FPCs which quantify the reduction of risk due to the installation of measures. This is a (world-)first step to establish an evidence base and lower barriers preventing wider uptake of PFR.
 - The next phase of the project will take place through 2024, and follows on further commitments from the Transition Plan to further develop the scoring methodology for PFR and begin laying the foundations for the deployment of FPCs. This will enable those who have taken up PFR measures to demonstrate to their mortgage providers, insurers and future buyers that their property is safeguarded against future floods, which will incentivize the market for resilience measures over time.
- In 2023, Flood Re became one of the founding members of the <u>Journal of Catastrophe Risk and Resilience</u>, the first open-access peer-reviewed journal of Catastrophe Research, which will enhance knowledge-sharing across the catastrophe modelling and risk and resilience research community within the UK and Globally. Flood Re's Head of Catastrophe modelling sits on the Supervisory Board for the journal.
- Flood Re's involvement in the Rochdale Flood Poverty Project continues through 2023 and into 2024, expanding to consider energy efficiency/fuel poverty schemes alongside flood resilience considerations, as noted above (p21).
- The Centre of Excellence commitment in the 2023 Transition Plan will result in a new mechanism for collaboration and commissioning for flood and resilience research (detail in 3.2)

- Flood Re has commissioned a research project to March 2024 investigating the post-consent and enforcement phases of planning for flood resilience (detail in 3.2).
- Flood Re's work with Moody's RMS to examine how climate change interacts with flood defence performance over the scheme's lifetime will report in late summer 2023, and should deepen understanding of long-term climate risks and how to offset projected increases in risk.

6. Support climate awareness amongst our customers/ clients

6.1. Communicate our beliefs and strategy on climate-related issues to our customers and/or clients.

- As mentioned previously, the most recent release of Flood Re's Annual Report & Accounts (ARA) provide clear communications of our views regarding climate change to insurers, government and to the public²². This can be found on pp 10-11 (Chair's Statement), 13-14 (CEO's statement) and 19 and 23 (Strategic Report) of the 2023 ARA, excerpted in Appendix C. A similar focus on climate change, the urgency to act, and Flood Re's efforts to advance adaptation action are found in the same sections of all of Flood Re's ARAs since 2020.
- As detailed above (see 3.1 and 5.1), Flood Re's Transition Plan constituted its principal publicfacing document, which detailed the increasing need to adapt to climate change to avoid impacts to the insurance industry and financial system, and included recommendations for government and industry action and commitments for action by Flood Re. This 75-page document amounted to an industry and public facing statement of our beliefs and strategy on managing risks to the scheme between now and 2039, with climate foremost among these.
 - o As part of stakeholder engagement into the plan's development, two stakeholder workshops were held with 50 and 70 attendees. A launch event was held with over 100 attendees.
 - o The Transition Plan received extensive coverage in the press, including an article in the FT, and at least a dozen other articles in trade and regional press²³, with total reach estimated at 17.8M readers across the publications.
- Build Back Better: Flood Re's flagship program remains a key area of focus for our communications and engagement work. The BBB program provides concrete financial incentives for insurers and their customers to understand and address their climate risks, while providing the flexibility for insurers to set their own standards for certification of materials and accreditation of installers.
 - Following the launch of Build Back Better in March 2022 with 5 insurers and 50% of the market, Flood Re has welcomed 10 additional members to the program in the last year, bringing coverage of the market to 71%.
 - o In order to support insurer delivery of the BBB program, a training video was created for insurers to understand the key principles of BBB. In conjunction with this, and an insurer day was held at a property level flood resilience facility in May 2023 in order to demonstrate the measures working in a simulated flood, with representatives from 10 participating and interested insurers.

²² https://www.floodre.co.uk/about-us/reports/

²³ Examples:

https://www.postonline.co.uk/news/7953810/flooding-to-become-more-persistent-with-three-million-urbanhomes-at-risk

https://yorkshiretimes.co.uk/article/Protect-Against-Floods-Or-Risk-Market-Instability

- Our March 2023 report on the Property Level Flood Resilience sector provided information for insurers to use in designing their build back better supply chains, and was discussed with industry representatives at forums and events throughout April and May 2023.
- Flood Re continues to be active in supporting the industry, and to stimulate the growth of the industry, including through Flood Re's role chairing the Property-Level Flood Resilience (PFR) Roundtable, and its work with that group to develop the PFR code of practice for the installation and construction of PFR, which was published in 2021, and the Community of Practice work which will deepen the code of practice's penetration throughout the construction industry.
- COP27: Flood Re's CEO attended and spoke on a panel at the World Climate Summit. At the previous year's summit/COP26, he had announced the intention to launch BBB, and at COP27 was able to present that it had received Parliamentary assent and launched, providing one of the world's leading examples of an insurer-led resilience program. He also announced the inclusion of a further 3 insurers in the BBB scheme, bringing the total to 9 this was reported in over 20 trade media publications.
- In April 2023, Flood Re and the Environment Agency collaboratively undertook the largest PFR campaign to date, entitled "Protect the Heart of Your Home". The campaign reached roughly 1.5 million people over the 5 weeks of the campaign via social media, website, and trade press.
- Flood Re's Chief Actuary, Laura Evans spoke at the RMS Exceedance conference in New York in May as part of the Climate Capabilities: A Guide to Different Approaches and Use Cases session.
- As mentioned in the public policy section 5.1 above, Flood Re has been active in stakeholder and public communications, and public-(and government) facing influencing activities around climate risk:
 - o As mentioned in sections 1 and 5, Flood Re's CRO and Chief Actuary have actively engaged with regulators since 2019 through the Bank of England's Climate Biennial Exploratory Scenarios process. This engagement will ensure stakeholders, such as insurance companies and mortgage underwriters, take into account the exit of Flood Re from the market in 2039. This work was reflected in specific discussion of the Flood Re 2039 exit in the final scenarios, which was published on 24 May 2022²⁴. As a result, participants in the BES exercise are aware of the need to explicitly ensure they account for the exit of Flood Re (and the flood risk transfer mechanism it provides to households) and to adjust their underwriting approach after 2039.
 - Flood re held four joint capacity-building workshops/webinars with the Town & Country Planning Association (TCPA), Royal Town Planning Institute, and Environment Agency on the subject of best practices for flood resilient planning and building, which had over 1500 attendees.
 - o Flood Re provided input and recommendations on a number of key government and agency strategy documents and initiatives including the Environment Agency's Thames Estuary 2100 plan and its National Flood & Coastal Erosion Risk Management Roadmap, the Scottish Government's National Planning Framework 4, the UK Government's now-announced implementation of Schedule 3 of the Flood and Water Management Act 2010, the Welsh Government's update to their technical advice note 15 concerning development and flood risk, the Committee on

²⁴ https://www.bankofengland.co.uk/stress-testing/2022/results-of-the-2021-climate-biennial-exploratory-scenario

- climate change's Climate Change Risk Assessment 4, and the National Infrastructure Commission's Surface Water report, among others.
- Flood Re participated in the UK Business Resilience Trade Mission to the USA (see end of section 5.1), which generated trade media coverage.

6.2. Inform our customers and/or clients of climate-related risks and provide support and tools so that they can assess their own levels of risk.

- Build Back Better scheme outreach as outlined in section 6.1 has involved a new way of working with Flood Re cedants who are participating in BBB, and involves the dissemination of information by 2 major channels:
 - Direct outreach to insurers:
 - Active engagement with insurers through 2022-23 to explain the benefits of and process for joining the scheme has grown the number of participating insurers from 5 to 15, and the share of the market offering build back better from 50% to 71%.
 - In April 2023, an information video was launched and an insurer information day was held to demonstrate the measures and process for effective deployment of PFR in insurer supply chains.
 - PFR Industry research report (see 3.2) to assist insurers with understanding the industry delivering PFR measures (also to assist with supply chains).
 - Broader communications, including public-facing information on PFR (which provides assistance for participating insurers and resources to help their clients to better understand home resilience measures):
 - Joint public-facing PFR campaign in conjunction with the Environment Agency, which reached 1.5 million people.
- Flood Re is an ongoing partner in supporting dissemination of the Environment Agency's 'Know Your Flood Risk' campaign and co-investing with the EA in their 'What the Flood' campaign with actions 'Prepare. Act. Survive. Flood guide.' Flood Re collaborated with the EA during Flood Action Week in November 2022 to promote these resources.
- Flood Re uses the OxCam Pathfinder project's "Floodmobile" to demonstrate over 50 adaptations for the home to help householders improve their home's resilience to flooding:
 - Flood Re was one of the original partners in funding the Environment Agency-led project, as part of the Property Flood Resilience "Pathfinder" project for the Oxford-Cambridge region. The Pathfinder projects helped raise awareness of climate change, flooding, and the need for resilience in UK regions, and the Floodmobile constitutes a legacy output of the project.
 - Flood Re sponsored the floodmobile to visit numerous events throughout 2022-23: FloodEx in November 2022, the launch of the joint campaign with the Environment Agency to raise awareness of PFR in May 2023, and Flood & Coast Conference in June 2023.

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²⁵ https://www.knowyourfloodrisk.co.uk/

²⁶EA campaign details: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/873033/ Withdrawn_200311_Flood_Action_Campaign_support_us.pdf

 Flood Re is currently working with the Scottish Flood Forum to develop a second 'Floodmobile' for use in Scotland, and has sponsored the creation of the vehicle, which is aiming to be operational by the start of 2024.

7. Enhance reporting

7.1. Submission against the ClimateWise Principles.

Flood Re has submitted its report against all ClimateWise sub-principles on time and in full.

7.2. Public disclosure of the ClimateWise Principles as part of our annual reporting.

- Flood Re's 2023 annual report specifically noted our ClimateWise submission, scoring, and included a link to the ClimateWise principles that are posted on our website (p26).
- Flood Re has previously posted its 2020 ClimateWise Principles submission (from August 2021)²⁷ and 2021 submission (from August 2022)²⁸ on its website. This submission will be posted once completed and submitted.
- Flood Re's 2020 Annual Report noted:
 - "Joined ClimateWise, a consortium of academic and insurance providers working to better communicate, disclose and respond to the risks and opportunities associated with the climate-risk protection gap. ClimateWise published its first Principles Review since the framework was aligned with the Taskforce for Climate-related Financial Disclosures."
- Flood Re also completed a gap analysis workshop with LCP during Q3 2021/22 in order to
 determine to what extent activities already being carried out by Flood Re meet the
 recommendations, and determine the next steps to help work towards the requirements in a
 structured way. The results of the gap analysis, shown opposite, demonstrate Flood Re's
 activity to date has created a strong basis for delivering TCFD compliant disclosures.
- Following this gap analysis the Executive Committee approved a TCFD Roadmap over FY 2022/23, to close out the handful of next steps highlighted from this independent gap analysis. In order not to duplicate effort, Flood Re's fully TCFD aligned disclosures are made up of content in the Flood Re Annual Report and Account, Solvency and this ClimateWise Report. These activities also strengthened our approach to managing climate-related risks and supports our obligations to the PRA under Supervisory Statement SS3/19.



²⁷ Flood-Re-Response-to-Principles-20Aug2020.pdf (floodre.co.uk)

²⁸ https://www.floodre.co.uk/wp-content/uploads/Flood-Re-ClimateWise-response-2021.pdf

| • | Each of the gaps set out in the report, as of June 2023, have been addressed and closed and the steps taken to take them forward are highlighted across this report. As of June 2023, Flood Re formally became a registered supporter of TCFD. |
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Background - Slide @ Nov 2019 Board

BACKGROUND: Flood Re "Angles" to Climate Change

Five elements have been identified which have a Climate Change related "angle" for Flood Re. <u>Either where</u> Climate Change is an overt risk (e.g. 1. Operating the RI Scheme, 2.Transition) or where it needs to be considered (3. Fin Disclosures, 4. Investments 5. CSR)

In terms of "size" of the work on Climate Change, the lions share sits in the Transition <u>column</u> and this is aligned to the "Limits of Affordability" / "sizing the pier" work delivered to date. The other areas are nevertheless being taken forward as per the exhibit below

Operating the Reinsurance Scheme

Transition & Exit

Financial Reporting & Disclosure

Investment Considerations

Corporate Social Responsibility



Consideration of Climate Change within Flood Re's Regulatory Solvency & Risk Assessments (Internal Model, Scenario Testing, SMCR etc).

Climate Change "Angle"

Steps taken include responding to PRA's April Supervisory Statement SS3/19 and delivery of Climate Change Scenarios in their 2019 Industry Stress Testing Exercise (GIST 2019) & BES 2021

Understanding of Climate change as a key risk to Flood Re's successful Transition in 2039.

See in particular "limits of affordability" workstream



The FSB Task Force on Climate-related Financial Disclosures (TCFD) has developed voluntary, consistent climate-related financial risk disclosures for use by companies.

See also our reporting against <u>ClimateWise</u> Principles/Sub-Principles



Green Finance and investments is a growing area and will be considered by the Flood Re Investment Working Group (led by the CFO) as a further element of the Scheme's forward looking investment strategy (potentially following QQR)



Flood <u>Re's</u> responsibilities in relation to our own impact on climate change and broader environmental impact has started to be considered through targeted CSR activities.

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Climate Change Status of Each Area @March 2023 (Examples of Work Completed & Next Steps)

Board & ExCo Oversight of Climate Change Risk Assessment

Operating the Reinsurance Scheme

Transition & Exit

Limits of Affordability (2039 and beyond)

Future Flood Explorer Analysis of future at

Flood Risk UK Properties - Transition & Risk

Transition Leading Indicators - #13 - Current

CO2 Atmospheric Conc vs Climate Change

Pathways - Risk

Financial Reporting & Disclosure

Enhancements/Development-Particularly in

Two cycles of reporting against ClimateWise

Principles and Sub-Principles - Transition /

Completed TCFD Gap Analysis 2022 - The

results of the gap analysis, demonstrate

Flood Re's activity to date has created a

recommendations, 2 are not currently

more material action) - Finance & Risk

relevant to FRe, 3 in progress, 1 requiring

strong basis for developing TCFD compliant

disclosures (8 of 14 areas already meet TCFD

2019/20 - 2021/22 ARA & SECR

upfront summary statements (CEO &

Chairman) - Finance & Transition -

CEO/Transition

Finance / Risk

Investment **Considerations**

Environment, Social and Governance

Investment Working Group

Investment Approach and Framework -

Corporate Social Responsibility

GIST 2019 - Climate Change Scenarios - Sept 2019 - Actuarial & RIsk

2019/20 ORSA Climate Change - Short Term Behavioural Implications Scenario (ceding insurer and reinsurer near term behavioural change) - April 2020 - Risk

2021/22 Impact of retrospective/current Climate Change on UK Flood Risk modelling - Assessed/quantified the impact of "near term" climate change and how/whether this is captured in current UK Flood Models -Head of Cat Modelling

2019 - 2022 Work Complete

Bank of England Climate Biennial Exploratory Scenarios - Liaised with BoE Team on Flood Re specific elements of these scenarios and final report (focus on Flood Re 2039 Exit)

COP 26 & 27 - Programme of engagement and

FRe Environmental Impact and Cut Down Use of Single Use Plastics - Initial review of Flood Re/75 KWS environmental impact

FRe Carbon Footprint Calculation - For ClimateWise & TCFD Reporting - Finance

influencing activity focusing on BBB and

Flood Re Staff Carbon Footprint Actions and Nudge Comms - All Staff Questionnaire, Nudge staff communications and presentations/material. To spur engagement and action regarding the environment across Flood Re employees

2023 ORSA Scenarios: Short and Medium Term Impact of Climate Change on Flood Re (Outwards RI Industry Appetite and Ceding Behaviour) - Consider behavioural change of key stakeholders driven by perception of climate change on UK flood risk. Stakeholder including cedant behaviour, outwards RI appetite/capacity, catastrophe model provider and regulatory/external thought

Particular focus on impacts of key variables (ceding volumes / outwards RI Cost & Availability) and how these could strain Scheme Parameters and Limits (liab limit, loss limit) as we face into next 3 year cycle (2025 -

Transition Plan 3 - Call to Action - Build on the 2018 Transition Plan (TP-2's) assessment of Climate Change as a material risk to Flood Re's Purpose and successful 2039 Exit. Set out the direction of travel of GHG Emissions (Transition Leading INdicator No13) and implications for UK Flood Risk Savers and Partners analysis and impact on form and size of Flood Re "Pier". Highlight "what needs to be true" for other areas of transition (defence investment, PFR, etc) to adapt to these expected increases in UK Flood Risk

Case Study on Climate Change and Flood Defence Outcomes - 2 Cities - Demonstrate the impact of climate change through modelled flood defence outcomes for two UK cities, to underline the importance of continued flood defence investment. - RMS

TCFD Next Steps (2023) - Close remaining "next steps" from the TCFD Gap Analysis / Roadmap. In particular agreeing "Goals"/"Targets" Flood Re will be highlighting in relation to our role in managing climate change vs our purpose

Updating Investment Policy - Updated investment policy with approach to investment climate considerations (aligning to TCFD requirements) - Finance

Quantification of Carbon Footprint of IT & Data Environment - Assess and quantify the carbon footprint of Flood Re's IT and Data environment(s) considering both whether this should capture Flood Re's own managed environments and/or those managed by 3rd parties. Both "On Premises" and "Cloud" environments.

In line with PRA's Supervisory Statement 3/19 the Flood Re SMF with the "responsibility for identifying and managing financial risks from climate change" is Stuart Logue as SMF2 - "Chief Finance"

Appendix C – Excerpts from Flood Re 2022-23 Annual Report and Accounts highlighting climate impacts.

The Chair of Flood Re commented, under the sub-heading "A future overshadowed by a volatile climate" (pp10-11), that:

"In recent years the UK has seen some of its most volatile weather events on record, including the hottest ever summer's day in July last year, and this year the wettest March for forty years.

The UK is not alone; there has been a marked increase in extreme weather events around the world, highlighting the fact that climate change is already with us. The time for urgent action is now. It should be a salutary reminder that, if weather patterns had changed only slightly, the UK could have experienced the terrible consequences of flooding which caused so much devastation in Germany in 2021.

In financial terms, we all pay a price for what happens worldwide given that reinsurance is purchased on a global basis. Global insured natural catastrophe losses have increased significantly over the last few years and consequently the price of global catastrophe reinsurance has also increased. This will impact the insurance industry generally and Flood Re specifically when we renew our large reinsurance programme in April 2025.

In the past year Flood Re continued to build on the strength of its financial position during a period when flood insurance claims were relatively low to ensure that when major claims do occur, as they inevitably will, we will be able to meet them. Our overall financial stability is confirmed by Standard & Poor's continued rating of Flood Re as A (stable).

Fortunately, this year the UK has been spared flooding, but we have seen the other side of the coin – drought and heatwaves. These moments of extreme heat and dryness should serve as a warning of increased and unpredictable periods of wet weather to come, rather than fool us into a false sense of security.

We are working with our partners to communicate these extremes in the context of general climate change and increasing unpredictability."

The CEO's statement noted under "Adapting to protect against a volatile climate" (p13) that:

"Flood Re continues to promote the availability and affordability of home insurance for those living with flood risk, while actively engaging with its stakeholders, including the insurance industry to drive practical change across planning, flooding and environmental policy in response to the intensifying effects of climate change.

The year under review has seen yet another period of severe weather in the UK, featuring drought and crop failure during a record-breaking hot summer, but, despite the wettest March for 40 years, we have thankfully seen few flooding events and consequent claims to the Scheme. Flooding along the Severn Valley in January resulted in minimal damage to households because of the investment in flood defences and adaptation measures in the areas affected.

A wetter and warmer future due to climate change is a certain event, so we are already living with the effects of increased volatility. COP27 was a significant and important event with the launch of the Sharm-El-Sheik Adaptation agenda — aiming to build climate resilience for four billion people globally by 2030.

In my conversations with other attendees at the conference it was notable just how much urgency we shared to protect against effects of climate change today, compared to COP26. From temperatures plummeting to minus 28 degrees in Afghanistan to Europe experiencing its warmest winter ever, the extreme weather events we have seen globally have concentrated minds. Recognition is just the first step; sustained action must now follow. COP27 reflected the global nature of the challenges around flood and the need for international collaboration and sharing of best practice.

By placing resilience at the heart of the planning policy debate, Flood Re believes it is possible to reduce householders' vulnerability to extreme weather events and help communities reap the benefits of a safer, better-planned built environment. This would also improve the affordability and availability of insurance for consumers in the long run."

P30 – Director's Report, under Climate Change Strategy, Governance and Risk Management states that:

Flood Re was established by the insurance industry and the Government as a direct response to extreme weather events and the resultant impact on the price of home insurance. Flooding poses a serious climate-related risk to the UK. Flood Re believes that the UK needs a long-term approach to both mitigation and adaptation to ensure that both current and increased flood risk resulting from climate change are managed effectively.

Appendix D – Environmental and Social Governance Criteria included as part of Flood Re Invitation to Tender

Note: terms in future procurements may vary depending on content of services to be procured

Flood Re's mandate is to ensure the availability and affordability of insurance that includes flood cover, and to ensure the orderly transition to a risk-reflective market by 2039. As a public body with a public purpose, we evaluate suppliers on the degree to which they conform with our public objectives.

Bidders will be evaluated on their integration of Environmental and Social Governance criteria into their operations. These may include any targets the company has set, and demonstration that the company is making all reasonable efforts to achieve these targets. It may also include examples of best efforts the company is making to have positive impacts on the environment, its employees, or the community it operates in or globally.

Some examples of relevant considerations or programs that the company may wish to provide information on in its response:

- 1. Company sustainability strategy, and/or any actions the company is taking to minimize waste, resource use, chemical use or the broader impact from its operations.
- 2. Company climate strategy, and/or any actions the company is taking to reduce its energy use or greenhouse gas emissions.
- 3. Any company-wide practices to measure/account for climate or sustainability metrics as noted in <1> and <2>, and any disclosure of these results.
- 4. Company philanthropy strategy, and/or any charitable donations the company has made or charitable partnerships the company has entered into, as well as any company volunteerism initiatives such as time off for volunteering and whether this involves any ongoing relationships with charities.
- 5. Any other public service mandate or public initiatives spearheaded by the company.

Appendix E – Flood Re Nature-Based Solutions and Natural Flood Management Work

Throughout 2022-2023, Flood Re has been active in trying to understand the emerging landscape of Nature Finance and Nature-Based Solutions. Using its involvement in the Wyre Valley Natural Flood Management Project as a starting point, Flood Re has been actively involved in numerous NFM and NBS projects throughout 2022-23:

- Head of Research agreed to sit on Green Finance Institute's Natural Flood Management Strategic Working Group, started in May 2023 and reporting to Defra in December 2023.
- Flood Re participating as a partner in Naturance Project, and Head of Research agreed to speak
 on LSE panel to kick off innovation lab on Urban Natural Flood Management solutions
 (scheduled September 2023). Head of Research sat on ClimateWise Nature & Insurance
 Working Group (which has now transitioned into Naturance working group), and Flood Re in
 discussions around potential development of use case.
- Established workstream around Nature-Based Solutions and Natural Flood Management. 2023 Transition Plan emphasized the need for a greater emphasis on NFM in national flood risk resilience, and participation in Wyre Valley NFM project has shown that Flood Re can be a partner who catalyzes or pushes a project 'across the line'. Building on this, internal workstream has been developed in order to consider Flood Re position on NFM and NBS, and whether additional work or support can advance projects or understanding at a critical time.
 - o May 2023 Executive Committee discussion on principles for support of Natural Flood Management projects, building on previous support for Wyre Valley NFM project.
 - Presentation to company-wide Connect Day in May 2023 on Nature-Based Solutions, TNFD, and Natural Flood Management.
- Head of Research sat on ABI working group on nature, and contributed to ABI Guide to Nature, which was launched on 04/07/2023, including a case study on Flood Re's participation in the Wyre Valley project.
- Policy & Impact Manager advising Trees AI project on flood management aspects, which is likely to link to Naturance project through insights into urban NFM.