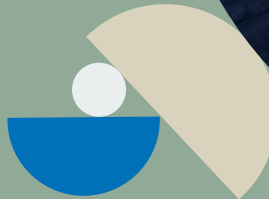


Sustainability in a changing built environment

SFHA Finance Conference
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Agenda

1. Introduction and overview
2. The meaning of Sustainability
3. Key areas for consideration and action
 - Development, renovating, retrofitting and repairing
 - Focus on Flood
 - Focus on Fire
4. How to respond
5. Q&A



<https://www.zurich.co.uk/news-and-insight/its-time-to-rethink-what-sustainable-construction-really-means>

Overview

Are we thinking holistically enough about sustainability?

40% of UK emissions
come from
households

7% increase in winter
rainfall by the 2050s

Annual temperatures
expected to rise by
1.1 °C by the 2050s

80% of buildings in
2050 have already
been built

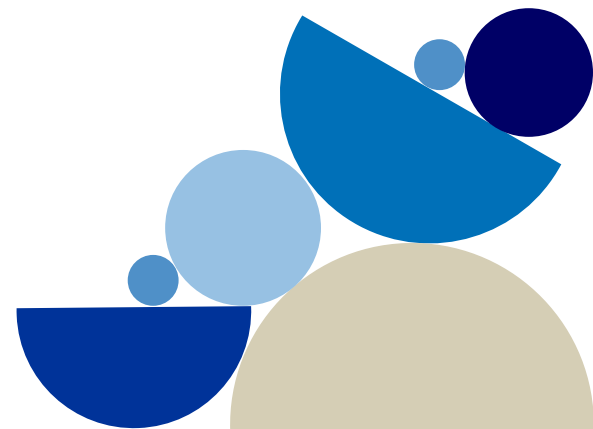
Intensity of winter
rainfall projected to
increase by **25%**

7% decrease in
summer rainfall by
the 2050s

100,000 new
affordable homes by
2032

Up to **54cm** sea level
rise by the 2080s

Does meeting climate targets make buildings and developments sustainable?



The meaning of Sustainability

Understanding the link between sustainability and resilience

“**Resilience**: The ability of countries, communities and households to manage change by maintaining or transforming living standards in the face of shocks or stresses without compromising their long term prospects” DFID, 2011

“**Sustainability** is about meeting the needs of the present without compromising the ability of future generations to meet their own needs.” UN Sustainability Development Goals

9 INDUSTRY, INNOVATION
AND INFRASTRUCTURE



BUILD RESILIENT INFRASTRUCTURE, PROMOTE INCLUSIVE AND SUSTAINABLE INDUSTRIALIZATION AND FOSTER INNOVATION

11 SUSTAINABLE CITIES
AND COMMUNITIES



MAKE CITIES AND HUMAN SETTLEMENTS INCLUSIVE, SAFE, RESILIENT AND SUSTAINABLE

Independent Assessment of UK Climate Risk

CCC Adaptation Committee's report sets out the priority climate change risks and opportunities for the UK

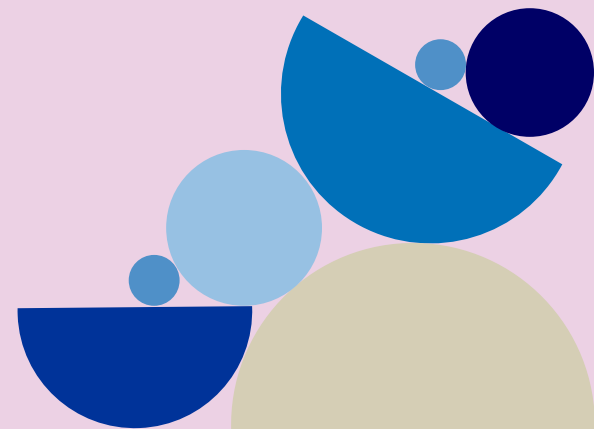
- UK's third Climate Change Risk Assessment was published on 16th June 2021
- www.ukclimaterisk.org hosts all of the outputs
 - Technical Report
 - National Summaries
 - Sector Briefings
 - Research & Supporting Analysis



<https://www.ukclimaterisk.org/wp-content/uploads/2021/06/CCRA-Evidence-Report-Scotland-Summary-Final-1.pdf>

“There is a strong focus, globally and in the UK on emissions reduction and achieving Net Zero...

But Net Zero alone is not enough. Reducing climate impacts requires both emissions reduction and adaptation. The UK will face significant further changes in climate to 2050 and beyond, even if the world is on a Paris-aligned emissions trajectory. By 2050 the heatwave summer of 2018 will be a typical summer, summer rainfall could fall by as much as 24% and winter rainfall increase by as much as 16%, changes that will impact our well-being, the natural environment and the economy.”



Key areas for consideration and action

Development, renovating, retrofitting and repairing



- Where we are developing,
- What we are developing
- How we are developing and
- Who we are developing for.

Residential development is a focus but principles apply to all buildings



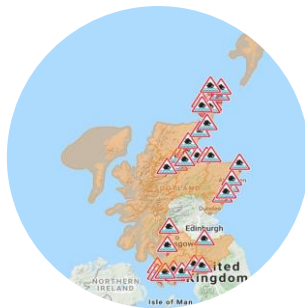
Key areas for consideration and action

Flood risk in focus

Future flood modelling lacks consistency and clarity

Flood risk is increasingly unpredictable and the nature of it is changing rapidly

Published flood frequencies can sometimes be misleading, meaning occupants of properties do not understand their flood risk



Flood resilience now and in the future

- Resilience measures must be demonstrably future-proofed
- Repairs and renovations post-flood must aim to make assets resilient to future weather events
- Incorporating defences now will save costs and losses in the future

Key areas for consideration and action

Fire risk in focus



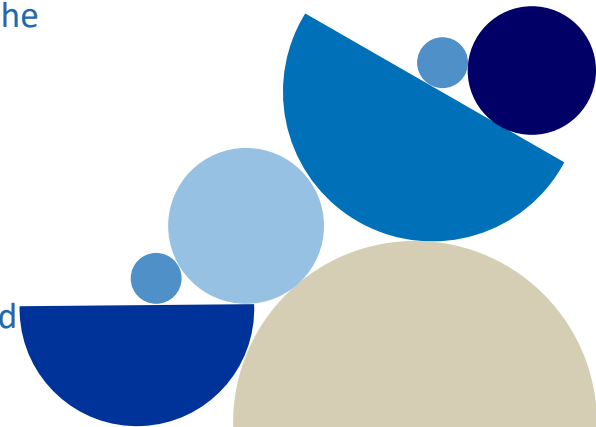
- Methods, materials and additions introduce new elements of risk
- Assurance is needed as to how the factory standards of off-site construction can be maintained during the on-site construction
- Firefighting tactics have evolved,
- Minimum standards in new buildings needed to increase resilience to fire
- Life safety and property protection



How to respond

Are you asking the right questions on sustainability?

- ✓ Are the identified **needs of your people and communities** driving your construction activity?
- ✓ Building regulations and standards are **minimum requirements, not benchmarks**, so do you comply with them, or do you try to go further to achieve greater environmental standards and building resilience?
- ✓ Do you factor in the **full building lifecycle**, including whether it would survive a loss event?
- ✓ Have you considered how a major loss could impact the most **vulnerable members of your community**?
- ✓ Do you **engage with your insurer at the design phase** of development to ensure the methods and materials chosen are responding to insurable risks?
- ✓ When considering the **energy efficiency of a building**, do you look at how the building will perform in optimal conditions or look at the reality of how it will be used/lived in?
- ✓ Do you take a **joined-up approach** to sustainable development, including considering how well connected a development is to other services, amenities and transport links?



Thank you for listening

Questions, comments and discussion

