#### W5. Climate Change Forum

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#### **Environment Sustainability and Climate Change Toolkit**

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### NFCC Climate, Environment and Sustainability Toolkit

- Research findings used by the Prevention Committee
- Research findings used by the Protection committee
- Research findings used by the Ops committee
- Research findings used by the People committee

Research and analysis fed into relevant NFCC committees and other partners to inform NFCC products and approaches

- Heat
  - Drought
  - Storms
  - Flood
  - Population
  - Water supply
  - Migration cood

National Assessment of Climate/Sustainability Risk

Commissioning of research and analysis through NFCC
Academic,
Collaboration,
Evaluation and
Research Group (ACER)

- nat evidence currently exists nationally and internationally for each
- What academic research currently exists national and internationally for each risk
- What foresight and insight already exists nationally and internationally for each risk

 Research and analysis commission w academic and research experts either independently or in partnership where gaps in understanding of risk exists What is it that we're facing?

What is it that we're trying to do?

Mitigation = reducing the magnitude by reducing emissions (net zero)

Adaptation = reducing effects by reducing vulnerability (climate security, climate resilience)

How do the above activities relate to the core fire and rescue activities?

Climate Resilient Communities – what is the Fire and Rescue Service role?

The NFCC and services' role in climate change needs to be defined – it is not enough to just focus on net zero

#### The challenges:

We are currently at a juncture point, we will soon split and the projections will start to coalesce on a specific pathway.

#### IPCC broadly suggests five pathways:

- 1.9 degree warming
- 2.6 degree warming
- 4.5 degree warming
- 7.0 degree warming
- 8.5 degree warming

These are scaled on:

Near term 2021 - 2040

Mid term 2041 - 2060

Long term 2081 - 2100

#### Climate Modelling Variation

#### What are the common projections?

Higher max temperatures (heatwave)

Longer warmer spells (drought)

Milder winter temperatures (increase in disease harbouring)

More rainfall on wettest days (flooding)

More complex wind events (clusters/stronger/longer storms)

Sea levels rising (more in South than North)

- Belfast circa 40 cms
- Cardiff circa 60 cms
- Edinburgh circa 40 cms
- London circa 60 cms

# What does this mean for our public services?

Long term planning to reduce effects by reducing vulnerability/risk

To reduce the impacts on our communities, fire and rescue services should ensure adaptation plans include reducing the impacts of the social, psychological and physical health of communities

They should also include in their risk planning the forecasted societal changes, and the projected strain on our resilience structures.

Impacts cluster into the following areas for consideration:

- Community harm
- Impacts on psychological health
- Impacts on physical health
- Need for communication
- Need for a whole of society approach
- Potential to exacerbate the structural inequality/inequity
- Strain on resilience structures

## Specific fire and rescue impacts

Inequality/Inequity
Health impacts
Climate change in cities
Wildfire
Drought

Mitigation
Adaptation
Future Plans



Longer term planning (for the scale and complexity of the future)

## Actions for fire services



Civil contingencies Met Office resilience training provides an understanding of the projections, the fallibility tolerances of this area, can advise on their own geographical area



Four tools can help with the local impacts and adaptation measures (tools available)

#### Four tools for your risk management process to understand risks in your area:

- Climate Just Local Resilience Tool to map risks and vulnerability data across your communities (preparedness, ability to recover, emergent and existing need): <a href="https://www.climatejust.org.uk/about">https://www.climatejust.org.uk/about</a>
- 2. University of Reading/UK Climate Resilience Programme tool: <a href="https://uk-cri.org/">https://uk-cri.org/</a>
- 3. Met Office data tool:

Allows a range of data to be explored (you're in control of what and how you use the data)

It's scaled data

It allows you to overlay your own data on to their data

You can expert the data to Excel or Power PL to integrat

You can export the data to Excel or Power BI to integrate it into your own data products

https://climate-themetoffice.hub.arcgis.com/ https://www.metoffice.gov.uk/research/approach/colla boration/ukcp/summaries/index

4. University of Exeter: National Local Climate Adaptation Tool (LCAT): The <u>new tool</u> makes the latest climate science accessible to decision makers to show how local climates will change, what community and health impacts may occur as a result, who will be most vulnerable and why and which adaptations to consider: https://lcat.uk/

#### How can we prepare?

- What is in your service community risk profiles and planning?
- How many years ahead does your service forecast for organisational development and planning outside of your risk management process?
- Partnership working in civil contingencies (Local Resilience Forums)
- Partnership working to reduce risk in communities and groups
- What does your training, development, learning and equipment budget contain?
- What are your services plans for physical adaptation?
- What are your services plans for building community resilience and whole of society approach now (ahead of the need to use it)?



Any questions?

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