

West Yorkshire Climate Risk Assessment

Community Stakeholder Webinar
24 September 2026



West
Yorkshire
Combined
Authority

Tracy
Brabin
Mayor of
West Yorkshire



CAG
CONSULTANTS

Agenda

Welcome and introductions

What is the West Yorkshire Climate Risk Assessment?

Climate impacts already experienced

Contributing evidence and lived experiences

Next Steps

Housekeeping

**The webinar will be
recorded**

- Introductions and questions in the chat please
- Keep microphones muted when not speaking





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A Climate Risk Assessment for West Yorkshire

Thursday 24th September



What is a climate risk assessment and why do we need one?

- A climate risk assessment is a piece of work which shows the climate change risks that we might see in West Yorkshire over the next 20-30 years.
- It will also tell us how often and where we might see these risks, and how we might take action to protect from risks.
- Climate change is becoming a bigger problem, with bigger impacts.
- At the moment, the Combined Authority and its partners don't have enough local information to see what might happen in West Yorkshire and so can't plan well for the future.
- Risks from climate change will affect different people differently. Risks threaten our businesses, transport and many other areas of life.
- The information from the climate risk assessment will help us have the biggest, most positive impact in West Yorkshire.

How the climate risk assessment fits with the Combined Authority's work



The Climate Risk Assessment will work alongside different plans and projects such as:

- Local Growth Plan
- Local Transport Plan
- Local Nature Recovery Strategy
- Emerging Spatial Development Strategy and Infrastructure Strategy
- Emerging approach to integrated water management

Our ambition for a climate-ready West Yorkshire

- The climate risk assessment is an important part of working towards Mission 4 of the West Yorkshire Plan: a sustainable West Yorkshire. It also underpins our four other missions.
- We want to build resilience to future changes in weather and climate and create a sustainable, nature-rich and climate-ready West Yorkshire.
- The assessment will provide important information on what the risks are and where and how often they might happen.
- It will also show us some of the best actions to take and how much these might cost.
- This information will help us in our work on future plans and projects. These could be environmental projects but also projects to do with transport, planning, housing and more.
- This is a key time for us to take action and actions need to be carefully chosen and successful.

West Yorkshire - Climate risk and vulnerability assessment

Climate vulnerability assessment

01

Start with the CCRA4 risk & opportunity long-list

Refine, combine, reframe or disaggregate with WYCA and key stakeholders.

02

Set the climate-hazard context for the whole assessment

GWL scenarios mapped to planning horizons • extreme heat • rainfall & flooding • drought • storms.

03

Assess each risk through three linked components

EXPOSURE + **SENSITIVITY** – **ADAPTIVE CAPACITY** = **VULNERABILITY**

04

Prioritise

HIGHEST VULNERABILITY

Outcome: a transparent, locally grounded evidence base for WYCA planning, investment and adaptation decisions.

Define risk and opportunities

- CCRA 4 as the basis
- Grouped by sector
 - Health and Wellbeing
 - Built Environment
 - Land, Nature, and Food
 - Infrastructure
 - Economy
- Short-list and update



Health and Wellbeing

Risks to people from heat

Risks to people from extreme weather, excluding heat

Risks to people from changes in air quality

Risks to people from climate-sensitive infectious diseases

Risks to food safety and nutrition

Risks to health and social care delivery

Table 3.1: List of risks and urgency scores for Health and Wellbeing by country. Details of how the scores in this table were calculated are in the Methods Chapter.

Magnitude		Confidence		Urgency	
VH:	Very High	•••	High	CAN:	Critical action needed
H:	High	••	Medium	CI:	Critical investigation
M:	Medium	•	Low	MAN:	More action needed
L:	Low			FI:	Further investigation
				WB:	Watching brief
				SCA:	Sustain current action

ID	Risk		Present	2030	2050	2080	Urgency
H1	Risks to people from heat	UK	VH •••	VH •••	VH •••	VH •••	CAN
		England	VH •••	VH •••	VH •••	VH •••	CAN
		Northern Ireland	M •	M •	H •	H •	CI
		Scotland	VH •	VH ••	VH ••	VH ••	CAN
		Wales	H ••	VH ••	VH ••	VH •	CAN
H2	Risks to people from extreme weather, excluding heat	UK	H •••	H •••	H •••	H •••	MAN
		England	H •••	H •••	H •••	H •••	MAN
		Northern Ireland	H •••	H •••	H •••	H •••	MAN
		Scotland	H •••	H •••	H •••	H •••	MAN
		Wales	H •••	H •••	H •••	H •••	MAN

Built Environment



Figure ES7: Flooding by the River Sever in Bridgnorth, Shropshire, in March 2020, a few weeks after Storm Dennis resulted in severe property damage and evacuations. Flooding is a major and growing risk for communities across the UK. Image credit: Adobe Stock

This Report Card provides a summary of the Built Environment chapter of the CCRA4 Independent Assessment's Technical Report, including an overview of each of the risks assessed as requiring the most urgent action or investigation. Full details including regional variations can be found in the chapter.

Chapter summary

The UK's built environment, encompassing both residential and non-residential buildings across urban and rural landscapes, faces mounting risks from climate change. These risks are unevenly distributed, disproportionately affecting vulnerable populations in deprived neighbourhoods and isolated communities.

- **Overheating and flooding are the most critical risks** for buildings and communities, with millions of people already affected across the UK (BE1, BE2).
- **Prolonged overheating in buildings leads to health issues and cascading effects** (BE1). For instance, overheating impacts the health and comfort of people in homes, workplaces and public buildings, such as prisons and schools. Heat can lower productivity and cognitive performance, with evidence showing that academic test scores in schools have been affected (BE7). Energy demand from cooling technologies is projected to rise in the future but can be partially offset by passive cooling strategies (BE9).
- **Current flood risk is high and will worsen across all nations**, with 6.3 million existing properties in flood-risk areas in England, 45,000 in Northern Ireland, 400,000 in Scotland, and 245,100 in Wales (BE2). More intense rainfall will increase the risk of surface water and river flooding, threatening people's homes, essential services (BE7) and emergency service facilities (BE8).
- **New evidence shows that some risks from climate change will have greater impacts than previously thought**, for example, increased subsidence from reduced summer rainfall (BE4).
- **Adapting the UK's building stock to address long-term climate risks presents significant challenges and more action is required across all risks in this sector**. An important gap is around adaptation actions for existing buildings.
- **More evidence of climate impacts on the built environment and of the effectiveness of adaptation action are needed for individual countries**, particularly Scotland, Wales, and Northern Ireland, where gaps exist across several risks. However, information on climate impacts or effectiveness of adaptation in any one nation is often relevant across the whole UK and so evidence is available on which to plan action, taking into account local context.

Built Environment

Risks to buildings and communities from heat

Risks to buildings and communities from flooding

Risks to buildings and communities, excluding from heat, flooding and coastal change

Risks to indoor environmental quality

Risks to cultural heritage and landscapes

Risks to facilities delivering public services, excluding health and social care

Risks to local resilience planning and emergency service response capabilities

Risks to households from changing energy demand

Infrastructure

Risks to the delivery of infrastructure services from interdependencies with other infrastructure systems

Risks to electricity generation

Risks to electricity transmission and distribution systems

Risks to fuel supply systems

Risks to road transport systems

Risks to rail transport systems

Risks to aviation and maritime transport systems

Risks to digital and communications systems

Risks to water supply and wastewater systems

Risks to waste management systems, excluding wastewater systems

Economy

Risks to domestic and international supply chains and resource inputs of UK businesses

Risks to the productivity and availability of labour in the UK

Risks to financial institutions and the financial system

Risks to public finances

Risks to household finances

Opportunities to UK businesses and financial institutions from delivering adaptation goods and services

Nature

Risks to terrestrial and coastal ecosystems

Risks to freshwater ecosystems

Risks to soil ecosystems

Risks to natural carbon stores and sequestration

Risks to agriculture

Risks to fisheries and aquaculture

Risks to forestry

Opportunities for agriculture, forestry, fisheries, and aquaculture

Risks to food security



Climate vulnerability assessment

- 01 Start with the CCRA4 risk & opportunity long-list**
Refine, combine, reframe or disaggregate with WYCA and key stakeholders.

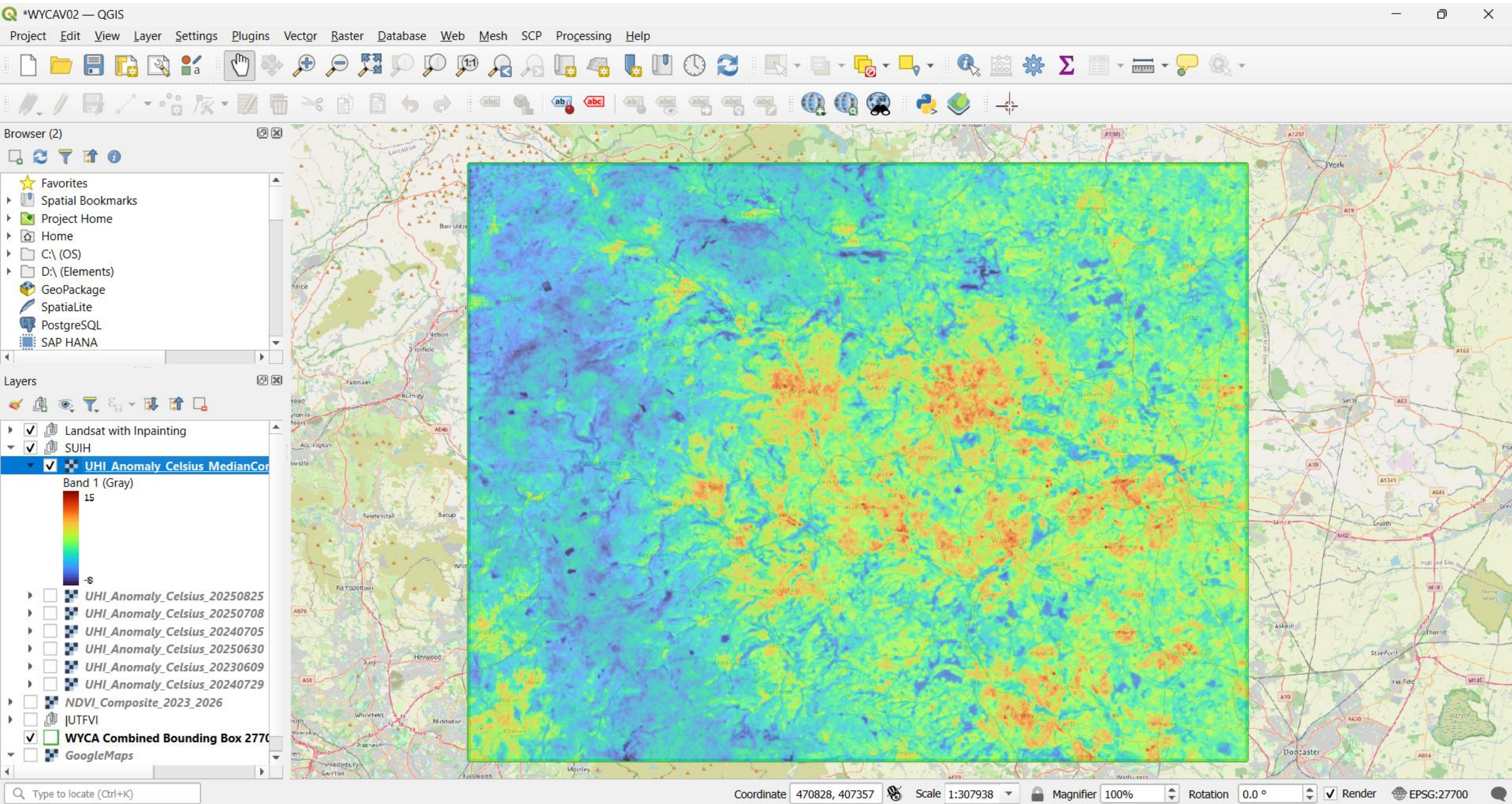
- 02 Set the climate-hazard context for the whole assessment**
GWL scenarios mapped to planning horizons • extreme heat • rainfall & flooding • drought • storms.

- 03 Assess each risk through three linked components**

$$\text{EXPOSURE} + \text{SENSITIVITY} - \text{ADAPTIVE CAPACITY} = \text{VULNERABILITY}$$

- 04 Prioritise** **HIGHEST VULNERABILITY**

Outcome: a transparent, locally grounded evidence base for WYCA planning, investment and adaptation decisions.



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EXPOSURE

+

SENSITIVITY

–

ADAPTIVE CAPACITY

=

VULNERABILITY

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Q&A

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Combined
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Climate Change
Risk and
Vulnerability
Assessment



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4434 2346

Thinking about the impacts of climate change in West Yorkshire, based on your experience which of the following present a serious risk?

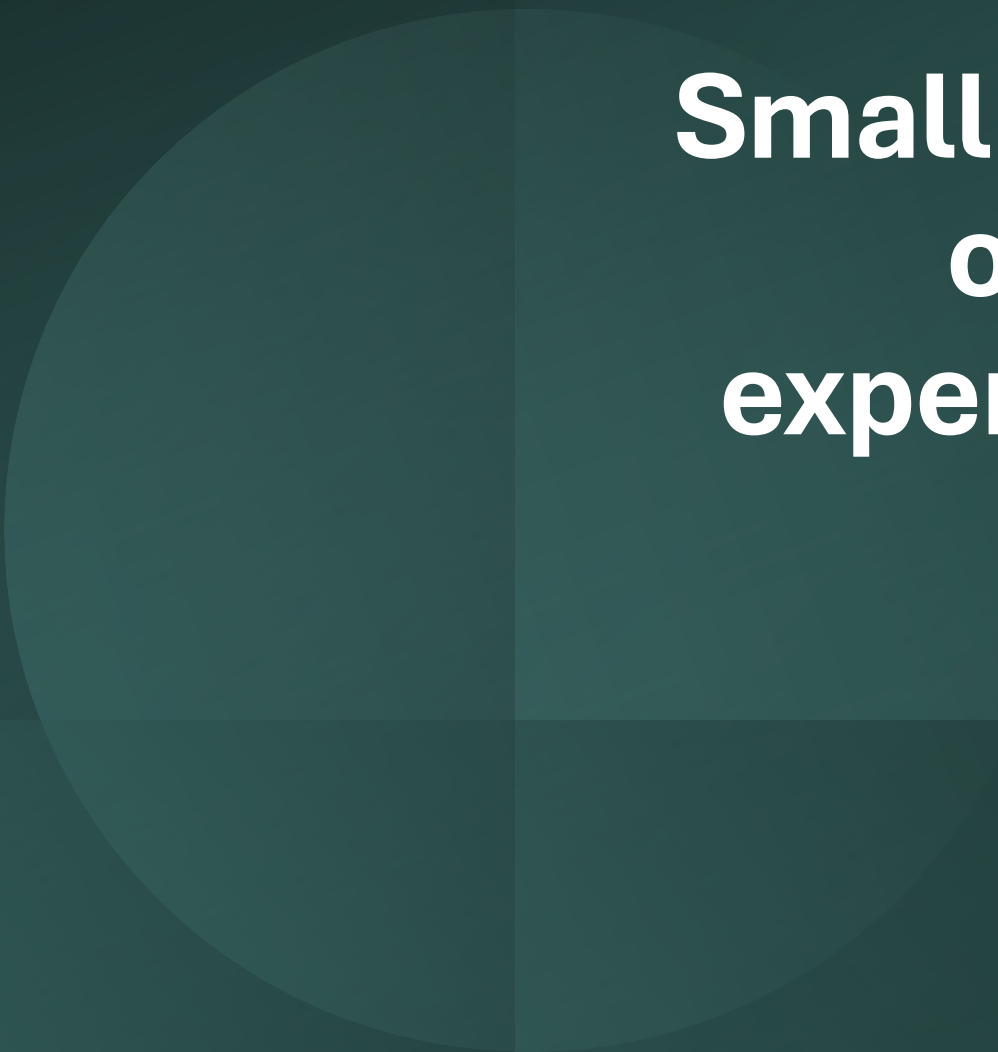
Hotter summers and extreme heat

-10

0

+10

100 points left



Small group discussions on community experiences of climate risks



Plenary session feedback from small group discussions

**Other ways to
contribute evidence
and support people
sharing their lived
experience of climate
impacts**

Why your evidence matters

We are assessing climate risks and opportunities across West Yorkshire and need the most complete evidence base possible. Much of the key data (e.g. on vulnerability, exposure, impacts, assets, and planned investment) sits with external organisations and people like yourself. Using your existing evidence will help us build on previous work, avoid duplication, and add the depth needed to assess risks accurately.

Types of evidence we're looking for

Evidence — Climate-related data, research, or plans your organisation has produced: resilience plans, asset upgrades, and major development or investment plans that affect vulnerability to climate risks.

Submit your evidence

Lived experience — Personal, community, or place-based accounts of how climate impacts and extreme weather have affected you or your area.

Submit your lived experience

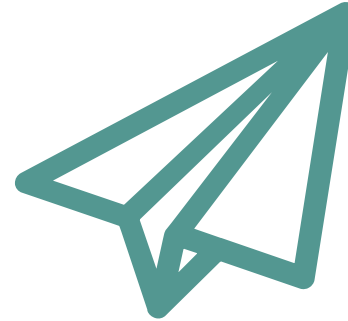
Please share your evidence by **Wednesday 30th September**.

If you're unsure whether your data is relevant, or have any questions, contact us at hq@cagconsult.co.uk.

Submit evidence



Submit evidence by end
September



Send stories of lived experiences
by end Sept



Questions and next steps

Next Steps

Call for evidence and lived experience submissions end Sep

Targeted sector interviews and focus groups end Sep

Community urban heat index workshop 5 Nov 2026

[Register here](#)

Completed risk assessment Dec/Jan

Final thoughts

Thank you!

Please get in touch

Derek Morgan & Rhona Pringle

- hq@cagconsult.co.uk
- <https://cagconsultants.co.uk/wyca>

WYCA Climate Risk and Vulnerability Assessment

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