

London and UK “underprepared” for climate change impacts like flooding and extreme heat

- The London Climate Resilience Review, an independent report commissioned by Mayor of London, publishes interim report.
- Findings confirm that London and the UK are “underprepared” for major climate impacts, including severe flooding, extreme heat and wildfires, with a “lethal risk” to the most vulnerable communities.
- Emma Howard Boyd CBE, Chair of the Review and former Chair of the Environment Agency, says “London has many good plans and programmes to prepare for climate hazards but we need to recognise that Londoners now face lethal risks, and a step change is needed.”
- Review makes urgent and strategic recommendations for UK Government and London, with full report to come later this year.

The London Climate Resilience Review has today [Wednesday 17 January] published its interim report. Following the flash floods in 2021 and the 40-degree heatwave in 2022, the Mayor of London commissioned an independent review to take stock and make recommendations to guide London’s preparations for more extreme weather.

The Review gathered evidence from individuals, communities and organisations including the NHS, Transport for London, London Fire Brigade, the Metropolitan Police, Borough Councils, the GLA, UK Government, NGOs, the financial services sector, sports and cultural institutions as well as representatives of vulnerable groups.

Key findings include:

- Despite some progress in preparing for the impact of extreme heat and surface water flooding, London is underprepared for the frequency and severity of climate change currently experienced. A “step change” in adaptation planning and investment is needed to allow the capital to withstand the disastrous effects of climate change, such as more intense and frequent heatwaves, more intense rainfall, flash flooding and sea level rise.
- Climate change presents a lethal risk to Londoners with some communities more vulnerable than others, including low-income households, the elderly, minority communities, children and youth and vulnerable health groups.
- The lack of a clear strategic vision from the national government is hindering progress at a regional and local level.
- Adapting London will benefit the UK as a whole, given the capital’s economic importance and the presence of critical national infrastructure, including transport hubs and key hospitals.
- Many other cities nationally and internationally face similar challenges. By showing leadership in the capital, London can be a global trailblazer city, lighting the way for global investment in preparing for climate change.

The Review will present a final report to the Mayor later in the year. The interim report’s key recommendations include:

- London should conduct a multi-agency exercise to test the city’s preparedness for a period of extreme heat.

- Whitehall should give councils more funding and powers to adapt their communities for climate change, instead of making local authorities compete for limited central money.
- Improvements are needed to housing standards to ensure homes are resilient against climate change, including heat and flooding.
- Action is needed now to prevent major flooding damage to London, including developing an action plan for where flood defences need be raised before 2050, installing sustainable drainage systems and creating a Strategic Surface Water Authority to tackle flooding caused by heavy rain.
- The Mayor should lead collaborative work with local authorities and the private sector to set out a clear strategic vision for climate adaptation in London by 2030.

Emma Howard Boyd CBE, Chair of the Review, said:

“London has many good plans and programmes to prepare for climate hazards but we need to recognise that Londoners now face lethal risks, and a step change is needed. Last year was the hottest on record and this is causing chaos and disruption all over the world. London is not immune, as shown by the flash floods in 2021 and a 40-degree heatwave in 2022.

“I am really pleased that the Mayor has agreed to support an exercise to prepare for even more severe heatwaves than we saw in 2022. This is a positive step that will help London organisations plan to protect more Londoners in future shocks.

“In the absence of national leadership, regional government has a more significant role to play. We need pace not perfection. It’s time for the UK, led by its cities and regions, to take action and prioritise adaptation. That is an opportunity to make the UK economy more climate resilient, to protect the most vulnerable, to preserve all that we love about London and to show leadership to other cities nationally and globally.”

The Mayor of London, Sadiq Khan said:

“I would like to thank Emma Howard Boyd, the Review team and everyone who has contributed to this Interim Report and its recommendations.

“Work led by City Hall and London Boroughs has long been underway to prepare the capital for the increasing frequency and intensity of climate risks, like flooding, heatwaves and drought. However, the harsh truth is that the increasing frequency and intensity of these events and a lack of action by the Government has left our city - and nation - vulnerable to extreme weather.

“I welcome these recommendations and have proposed in my latest Budget an additional £3 million to accelerate climate adaptation work in London. We will be looking at how we can take forward the recommendations identified so far and urging others, especially Government, to do the same.

“I can also confirm today that the London Resilience Partnership will carry out an exercise later this year to test London’s preparedness for a severe heat episode and that my green finance programme will begin work to consider how adaptation finance, including nature-based solutions, can be accelerated in early 2024.”

Cllr Kieron Williams, London Councils’ Executive Member for Climate Change, Transport and Environment, said:

“Londoners are already experiencing the severe impacts of climate change, from heatwaves to flash flooding. Alongside the work we’re doing to cut carbon emissions, we urgently need

to make our city more resilient to the more extreme weather we are already seeing, so we can protect our diverse communities and way of life. This timely review into London's preparedness is a clear call to action. London boroughs look forward to working with our partners across the capital to act on these recommendations, so together we can make London safer and greener."

London's main climate risks are:

- Rising sea levels and the need to strengthen the Thames' defences.
- Surface water flooding, as seen in the past few weeks alone.
- Heat, with London having already hit 40°C for the first time in 2022.
- Drought – if no action is taken by 2050, the UK's national water supply will face a shortfall of nearly 4 billion litres a day. Lack of water supply will cost London's economy an estimated £500m a day.
- Wildfires, such as those seen in Wennington in 2022.

Baroness Brown of Cambridge, Prof Dame Julia King DBE FREng FRS, Chair of the Adaptation Committee of the CCC (Climate Change Committee), said:

"In recent years we've seen a 40-degree heatwave, water shortages, wildfires, floods and storms in London. This year El Niño will almost certainly and tragically underline the need to make climate resilience a much greater national priority. I urge Ministers to read this report and understand the need to make short and medium term commitments, we cannot afford to continue to kick into the long grass issues like sea level rise in the Thames."

Sir John Armitt, Chair of the National Infrastructure Commission, said:

"The truth is that London is not ready to cope with the likely weather changes ahead. This interim report lays out what needs to happen to fix that, including an honest public conversation about the costs of securing reliable transport and utility services in the face of a changing climate. That requires infrastructure operators to calculate those costs, informed by expert advice from the Met Office. The Commission commends the ongoing work of the Review team and its coherent plan of action."

Bob Ward, Chair of the London Climate Change Partnership, said:

"This timely and thorough Review correctly highlights the threats posed by the growing impacts of climate change on London, including from heavier rainfall and more intense heatwaves, which are disrupting lives and livelihoods across the capital. These impacts will increase in frequency and severity for at least the next three decades, and a failure to adapt will undermine London's status as one of the world's great cities. The Review rightly recognises that a more strategic approach is required to make London more resilient to these impacts, with a coordinated approach between local and central government, companies and communities. I hope that the recommendations will be acted upon quickly and effectively by decision-makers in the public, private and third sectors. The London Climate Change Partnership will play its part in implementing the actions recommended by Emma Howard Boyd and her team."

Lord Toby Harris, Chair of the National Preparedness Commission, said:

"This is an important review and confirms the Commission's view that as a nation we should be investing much more in preparedness and resilience, not just against climate change but all the hazards and threats that we face as a country. The review also emphasises the importance of engaging the whole community in improving our readiness to face climate

risks: Government, City Hall and the Boroughs must all play their part, but every individual, household and business has an important part to play."

Denise Bower, Group External Engagement Director, Mott MacDonald, said:

"Our climate is already changing, and whilst it's important to remain focused on cutting emissions we also need to adapt now to the hotter temperatures, flooding and other changes we will face in the coming years. These interim findings of the London Climate Resilience Review set out a compelling case for the changes needed in London; they also have important lessons for cities across the UK and globally. We are looking forward to the final report of the Review team and to supporting businesses and other organisations in the capital and elsewhere around the world as they take the urgent action needed to build resilience and allow all communities to continue to flourish."

Dr Ashok Sinha, Chair of the London Sustainable Development Commission, said:

"These interim findings from Emma Howard Boyd's London Climate Resilience Review demand attention from everyone with a duty to protect Londoners from harm.

"The report's emphasis on a Just Transition is especially important: this not only means helping workers move from the fossil fuel-based economy into green jobs, but also protecting everyone, especially the most disadvantaged who are most at risk, from killer heatwaves and flooding.

"As the report compellingly underscores, echoing analysis by the LSDC, this will require proper devolution of powers and funding to London and its boroughs, deep engagement with all Londoners and support for communities to shape the creation of appropriate local solutions.

"The good news is that effective climate adaptation and mitigation, if pursued hand-in-hand as the report strongly recommends, can lead to real social and economic gains as well as saving lives and limiting global heating."

Dr Rhian-Mari Thomas OBE, Chief Executive Officer, Green Finance Institute, said:

"Responding to events exacerbated by the climate crisis – such as flooding and drought – is costly and resource intensive. Mitigating these inevitable risks, by investing in adaptation and climate resilience, is the effective way to reduce the growing impact on Londoners both practically and economically, as clearly set out in this timely and instructive review by Emma Howard Boyd and her team.

"The GFI fully supports the interim conclusions of this work, in particular the creation of an adaptation finance workstream and the expansion of the investment criteria of the GFI-initiated Green Finance Fund to support adaptation projects, including nature-based solutions. The City of London – home to one of the world's leading financial centres – must harness the creativity and ingenuity of its finance sector to support a resilient, net zero community."

Kathryn Brown, Director of Climate Change and Evidence at the Wildlife Trusts, said:

"This review is not pulling any punches, either on the risks that London faces or its current level of preparedness, the fact that both people and nature in London are facing potentially lethal impacts is spot on. But London also has the chance to position itself as an adaptation leader in how global cities prepare. It has created and maintained beautiful green spaces which can protect people from extreme heat and flood, but needs to value these places for the resilience benefits they provide. There is huge opportunity here through harnessing the

City's green finance expertise and the experiences of the boroughs and communities across London."

Patrick Begg, Outdoors and Natural Resources Director at the National Trust, said:

"As we head towards a General Election, all politicians should give climate adaptation the immediate, unswerving attention it deserves, so the UK can be better prepared for the weather extremes we are increasingly experiencing. We support the review's timely call for a cross-Government, Cabinet Office Minister for resilience and adaptation, and urge all parties to commit to increase support for nature-based solutions to climate change and to put climate adaptation at the heart of their manifestos."

John Keppel, Chief Sustainability Officer at Zurich UK said:

"The UK needs to become more resilient and better adapted to the risks posed by our changing climate. London has some of the highest-valued property assets in the world, therefore we need action to be taken on adaptation. Insurance has an important role to play in providing risk management and resilience services to sectors across the economy. We welcome the publishing of the London Climate Resilience Review, which offers findings and recommendations for business, local and national government to mitigate climate risk. The insurance sector stands ready to work with the public sector to help protect communities in London from these risks."

ENDS

Notes to editors

1. **The full interim report is available on the London Climate Resilience Review [webpage](#).**

2. **To arrange an interview or for further information**, please contact: Sam Payne, Headland Consultancy – lcr@headlandconsultancy.com / +447818705765.

3. About the Review

The London Climate Resilience Review (the Review) is an independent review commissioned by the Mayor of London to take stock of London's preparations for climate change and to make recommendations to advance London's climate resilience. The Mayor called for the Review following accelerating climate impacts in the UK and around the world. In London the extreme flooding of July 2021 damaged homes and properties, costing local authorities tens of millions, with aggregate insured losses estimated to be over £100 million, displacing residents and disrupted critical services to vulnerable Londoners. In 2022, there were 3,271 heat related deaths in England and 387 in London. The 2022 heatwaves would not have happened without climate change but many of those deaths would have been preventable. The heatwaves caused widespread failure of green infrastructure including street trees, in Epping Forest alone a total of 76 fires were reported between 26 June and 16 August 2022. The extreme heat stretched water supplies, melted road surfaces and caused disruptions to rail infrastructure. Social care, education and health care face major disruptions across London. The aggregate costs are not known. The Review is exploring actions needed at the national, regional and local level to reduce climate impacts on people, infrastructure, nature and the environment and economy in London. The Review has run a comprehensive research and engagement process to deliver its assessment of London's climate

resilience and to inform recommendations to guide London's preparation for more frequent and intense climate hazards.

- 4. The Review's findings will be split into two parts. This is the Review's interim report, which sets out strategic and urgent recommendations.** The Review's full report will be published later in 2024 and will include the Review's full findings and complete set of recommendations. This report sets out 20 recommendations which call for strategic, delivery, capacity building or investment actions. The Review has indicated high level timeframes for recommendations. Recommendations are directed to stakeholders across London, including the Mayor of London, UK government, local authorities and the community and voluntary sector. More recommendations will be set out in our final report.