LSE Grantham Research Institute on Climate Change and the Environment

Evidence submission and comments on the London Plan consultation

Bob Ward

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About this submission

This is a submission made to the Mayor of London's consultation on the next London Plan, the strategic framework that guides and shapes London's development. The consultation ran from 9 May to 22 June 2025. Details of the consultation are available at https://www.london.gov.uk/programmes-strategies/planning/london-plan/towards-new-london-plan-consultation

The submission was written by **Bob Ward**, Policy and Communications Director at the Grantham Research Institute on Climate Change and the Environment and Chair of the London Climate Ready Partnership. The submission was prepared on the basis of the author's own professional expertise and knowledge, and does not necessarily represent the views of the Grantham Research Institute or the London Climate Ready Partnership.

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Introductory comments

London's adaptation and resilience to the growing impacts of climate change is fundamental to prosperity and wellbeing in the capital. Many of the direct impacts on London, including more frequent and intense rainfall events and heatwaves, are already causing loss, damage and suffering across the capital. London is also exposed to indirect impacts occurring in other parts of the UK and other countries, which disrupt and destroy supply chains and markets, threatening not just businesses but also, for instance, our food and energy security.

These impacts will continue to increase at least until the world reaches net zero emissions of greenhouse gases. Under the most ambitious outcome for the Paris Agreement, global emissions will reach net zero by 2050 and provide a reasonable chance of limiting the rise in global temperature to 1.5°C compared with pre-industrial levels by the end of the century. However, recent analyses by the United Nations Environment Programme and others indicate that current pledges and policies from countries are not consistent with this goal, and would likely leading to warming of about 3°C by the end of this century.

This means, under a best-case scenario, the direct impacts of climate change on London will continue to increase until at least 2050, with some impacts, such as sea level rise, continuing far beyond. If the world continues along its current path, these impacts will continue to worsen beyond the end of the century. It is worth noting that the last time the Earth was 3°C warmer than pre-industrial level was about 3 million years ago during the Pliocene Epoch, when global sea level was 5 to 25 metres higher than today.

Without adaptation to improve London's resilience to the impacts of climate change, growing numbers of lives and livelihoods across the capital will be damaged and lost. We know that those on the lowest incomes will be most vulnerable to these impacts, which will increase inequalities across London if there is no adaptation. Without adaptation, London will become a riskier place to live and work, and it will find it difficult to compete for workers against other cities that are more resilient. One major consequence of a failure to adapt would be a reduction in the availability and affordability of insurance for households and businesses against weather impacts. Conversely, if London invests in climate change adaptation, it will be able to out-compete other cities that are less resilient. While London has made some progress on adaptation, such as the Thames Estuary 2100 project and the new London Surface Water Strategy, it remains vulnerable and exposed to current impacts, and will become more so over the next 25 years without significant further investments in adaptation.

It is clear that climate change adaptation and resilience should be a priority at both national and local levels, including in London. However, as the recent assessment by the Climate Change Committee, published in April 2025, makes clear, the UK is not adequately prepared for the impacts of climate change, and recent governments, including the present one, have failed to make adaptation a priority. This reflects a lack of strategy and a lack of investment, which is undermining the resilience of the UK's society and economy.

The Mayor of London, Sadiq Khan, demonstrated leadership on this issue when he commissioned in 2023 a review by Emma Howard Boyd of the capital's climate change resilience. The final report of the London Climate Resilience Review, which was published in July 2024, concluded that although progress had been made in some areas, London was significantly exposed and vulnerable to climate change impacts, such as extreme heat. The Review included 50 recommendations, half of which were explicitly targeted at the Mayor and the Greater London Authority.

In his response, Mr Khan committed to taking forward those recommendations aimed at him and the Greater London Authority. He stated: "Where I have the powers, for example, through the London Plan, I commit to act. Where I do not, I will work with partners, including national and local government, businesses and London's diverse communities, to take forward the Review."

The Mayor also pledged to fully develop an adaptation delivery plan. This plan has not yet been made public, and it is not clear what resources have been earmarked for delivery. In addition, no arrangements have been put in place for independent monitoring and reporting on progress towards implementation of the recommendations of the Review, similar to the assessments of the delivery of the National Adaptation Programme by the Climate Change Committee. The London Climate Ready Partnership or other body could carry out this independent scrutiny if provided with adequate resources.

As such, the London Plan is, at present, the most significant way in which the Mayor can indicate how he will take forward the Review's recommendations. It is somewhat disappointing that the consultation document does not make the Review's recommendations a central theme and only explicitly mentions it twice in 76 pages. This failure gives the impression that implementation of the Review's recommendations is no longer a priority for the Mayor. This would be extremely disappointing if it is true.

The Grantham Research Institute on Climate Change and the Environment, as a member of the London Climate Ready Partnership, will continue to contribute to the implementation of the London Climate Resilience Review, particularly through the development of an overall vision and strategy for adaptation and resilience in London, the creation of a new heat risk management strategy that is developed and delivered by stakeholders across the capital, and outreach and engagement across the many boroughs and sectors of London.

I outline below places in the consultation document where action on climate change adaptation and resilience should be highlighted.

1. Introduction

1.1. What is the London Plan?

The document notes that the plans developed by local authorities must be in "general conformity" with the London Plan. Thus the Plan is an important way to ensure local authorities contribute to the implementation of the recommendations of the London Climate Resilience Review.

1.2. What years will the new London Plan cover?

The document notes that the Plan will apply from its adoption in 2027 until 2050. This means that the impacts of climate change will increase throughout the duration of the Plan. The consultation document states: "This enables us to properly plan ahead, particularly given that things like major transport infrastructure take many years to plan and deliver."

1.4. Viability and delivery

The consultation document states: "The London Plan will need to identify the capacity to deliver 880,000 homes over 10 years and how we can achieve Good Growth". It also notes: "It is vital that we have an ambitious approach to quality, and we continue to deliver key objectives, like meeting our climate commitments and increasing inclusion, health, and wellbeing. In doing so, we must carefully consider the impact of policies, individually and cumulatively, on the costs and viability of development." These climate commitments require investments in both reducing emissions of greenhouse gases and adaptation to the increasing impacts, with significant returns in terms of prosperity and wellbeing.

1.7. Integrated Impact Assessment (IIA)

The document states that the Plan will be supported by an Integrated Impact Assessment, including a Sustainability Appraisal and a Strategic Environmental Assessment. These should explicitly acknowledge significant uncertainties about the future, including the speed and extent of increases in climate change impacts.

1.8. Habitats Regulations Assessment (HRA)

This considers whether the London Plan is likely to have a significant effect on a protected habitats site. This should include positive impacts where the London Plan results in adaptation of protected habitats to the growing impacts of climate change.

1.9. Beyond London

The extent to which London adapts to climate change will have implications for the rest of the UK and many other parts of the world. For instance, the vulnerability of London's financial centre to an increase in the intensity and frequency of extreme weather events is of national and international significance.

The resilience of London to climate change impacts also depends on the extent to which other parts of the UK and the rest of the world successfully adapt to protect supply chains and markets.

1.10. Good Growth objectives

The current London Plan is "informed by six Good Growth objectives", including "increasing efficiency and resilience". The current Plan indicates that this objective includes: "ensure buildings and infrastructure are designed to adapt to a changing climate, making efficient use of water, reducing impacts from natural hazards like flooding and heatwaves, while mitigating and avoiding contributing to the urban heat island effect". While this is important, it only identifies resilience to the direct impacts on London's physical infrastructure, and neglects wider impacts that would affect, for instance, society or supply chains and markets, including those that contribute to energy and food security. The new London Plan should recognise the importance of adaptation to ensure broader resilience to climate change impacts.

1.11. The Key Diagram

The consultation document notes that the current London Plan includes a Key Diagram, illustrating the spatial vision. This diagram shows key transport infrastructure projects around the capital, highlighting those on which progress has not been made or those which are unfunded. Any similar assessment for the new London Plan should include an assessment of the extent to which London's transport infrastructure projects are adequately taking into account resilience to the growing impacts of climate change. It is clear, for instance, that parts of London's transport infrastructure are vulnerable to current levels of heavy rainfall and extreme heat.

2. Increasing London's housing supply

The consultation document notes that the Government has indicated that London needs 880,000 new homes over the next decade, and that this will include building on the green belt. However, of critical importance is that new homes are built in a way that ensures they are resilient to the increase in climate change impacts over their lifetimes. This includes avoiding where possible building new homes in areas that will be at high risk from river and surface water flooding, overheating, and other impacts that are increasing due to climate change. It should be noted that building on the green belt is likely to increase the urban heat island effect, leading to greater risks of overheating buildings and infrastructure. In addition, new buildings on green belt land may be exposed to greater risks of impacts from wildfire if they are located near to large areas of vegetation.

The new London Plan should also explicitly recognise the need for significant investment in retrofitting existing houses to ensure they are resilient to the growing impacts of climate change. Many homes are already exposed and vulnerable to current impacts. A significant number experience overheating which increases risks of morbidity, mortality and reduced productivity. Many homes, particularly those located at basement level, are at risk from flooding. A home that is not resilient to climate change impacts cannot be considered a decent home. The London

Climate Resilience Review recommended: "Adaptation of existing buildings should be priority for delivery". It added: "Retrofit delivery programmes should be developed for those most at risk from climate impacts."

2.8. Other sources of housing supply

The consultation document notes that the Mayor has commissioned a London-wide green belt review. This review should recognise that reducing the green belt in London will likely increase the urban heat island effect, with consequent higher risks of overheating. Any building on the green belt which results in homes being located immediately adjacent to large areas of vegetation could potentially expose them to significant risks from wildfire.

2.12. Affordable housing

The consultation document states: "The Mayor is determined to make housing more affordable to Londoners on low and middle incomes. Not having enough good quality affordable homes is impacting Londoners and the capital overall in many ways." The new London Plan should be explicit that "good quality affordable homes" are resilient against the growing impacts of climate change, and that housebuilders should regard climate resilience as essential rather than optional for new developments. In particular, housebuilders must not reduce the cost of building by neglecting climate resilience, forcing future owners and tenants to pick up the bill for expensive retrofits to provide adequate protection against extreme weather events that are increasing in intensity and frequency. This is particularly critical for tenants and owners on the lowest incomes who are least able to afford retrofits, and may be particularly vulnerable to impacts due to ill health. In the same way that those on lower incomes are often exposed to the highest levels of air pollution, they are also likely to be housed in buildings that are most exposed and vulnerable to extreme weather events, such as floods and heatwaves.

2.17. Specialist and supported housing and housing London's older population

The consultation document notes that housing provision and choice "can significantly improve people's health and wellbeing". The new London Plan should recognise that people who have reduced mobility are particularly vulnerable to impacts such as flooding. People with underlying respiratory illnesses are particularly vulnerable to the impacts of air pollution and overheating homes. It is patently unfair for people who are particularly vulnerable to be exposed to the impacts of climate change through homelessness or being housed in homes that are at higher risk.

3. Growing London's economy

The consultation document states: "The Mayor and London boroughs have published a London Growth Plan. It has a mission to grow the economy and increase productivity, improve the lives of all Londoners and drive green growth." A key component of green growth is ongoing resilience against the increasing impacts of climate change through adaptation. Conversely, a lack of adaptation would lead to loss and damage that will undermine economic growth in London.

The document also identifies "climate and nature" as a key growth sector for London's economy. This includes businesses that are involved in adaptation, such as the construction and insurance industries.

It points out that economic activity in London takes place in locations such as: the Central Activities Zone (including the northern part of the Isle of Dogs); specialist clusters of economic activity; town centres and high streets; and industrial land. The London Plan should recognise that these types of urban areas, characterised by extensive man-made surfaces, are potentially more exposed than rural areas to some of the impacts of climate change, such as surface water flooding and extreme heat. Adaptation is therefore essential to protecting ongoing economic activity in these locations.

4. London's capacity for growth and design quality

4.5. Designing the homes we need

It is disappointing that this section of the consultation document does not explicitly reference the relevant parts of the London Climate Resilience Review. However, it rightly states: "We need to ensure good quality homes that meet people's needs, provide a healthy place to live and respond to future challenges including those of climate change." But it also adds: "A careful balance must be reached, prioritising necessary requirements while supporting the delivery of more homes, particularly affordable housing." It is extremely important to note that any attempt to reduce the upfront costs of building houses for developers by failing to build in resilience to the growing impacts of climate change would actually lead to higher long-term costs through expensive retrofits, which will be borne by future owners and tenants, or higher losses and damages, as well as increased insurance rates. It is essential that developers are not allowed to build houses that lock-in vulnerability and a lack of resilience to climate change impacts to reduce their upfront costs.

4.6. Heat risk, ventilation and overheating

The consultation document correctly identifies overheating as a major and increasing challenge for London, stating: "Overheating can be minimised through passive design measures such as dual aspect and shading which can reduce heat risk and improve ventilation." However, it also notes that "industry and government have been very clear about the impacts of some of these and other requirements on delivery and costs". As overheating homes can be life-threatening to vulnerable people such as those with underlying respiratory illnesses, and can reduce the productivity of those who work from home, allowing developers to ignore this risk would be both unethical and economically-damaging.

The consultation document suggests that the new London Plan could omit the measures outlined in the current Plan's cooling hierarchy, and instead rely on national building regulations. However, it is important to note that the most recent assessment of the building regulations by the Climate Change Committee, published in April 2025, warns that "gaps remain in enforcement mechanisms, and the monitoring of overheating and adaptation in the existing residential and non-residential building stock". The new London Plan should only abandon bespoke measures if it is clear that the protections against overheating in the national building regulations are being properly enforced in London.

The consultation document also states: "The London Plan could also continue to take approaches that require modelling of, and designing for, specific warmer conditions. In future, these will become more frequent in London due to climate change." In fact, housing developers and regulators should be required to take into account up-to-date assessments of the likely rate and extent of warming, including the risks of extreme heat events, to ensure that they are not building homes that are a threat to health and productivity.

The London Climate Ready Partnership has established a group on heat, including experts from across academia, business and the public sector, who could provide up-to-date and informed advice to the Mayor on this issue.

5. London's infrastructure, climate change and resilience

The consultation document correctly states: "The climate emergency also means we need infrastructure that is resilient to severe weather, protects the health and livelihoods of Londoners and promotes self-sufficiency. Increasing London's resilience to heat risk and flood risk are crucial to adapt to the impacts of a changing climate." However, almost all of this section focuses on the need to cut greenhouse gas emissions, and neglects the importance of adaptation and resilience, particularly in relation to economic growth. This is an example where explicit reference to the London Climate Resilience Review should occur.

5.5. Green and open spaces

The consultation document states: "With a changing climate, flooding and overheating will become even greater risks. London's green spaces play a major part in helping to protect against the worst of these effects. It is therefore the Mayor's ambition to increase access to green space and tree cover across London." However, this ambition appears to be in conflict with the pressure on the Mayor, highlighted in the consultation document, to build on the green belt.

5.6. London's open spaces

The consultation document states: "The plan could also take smaller green areas and linear green spaces into account...These include wider benefits such as mitigating flood risk and providing cooler spaces. However, it would require clear criteria. This would recognise that not all green infrastructure, for example green verges of roads, provide meaningful open space for people to use." While the recognition of the contribution of green spaces is welcome, the claims about green verges of roads is false. In fact, there is strong evidence that road verges provide important habitats for wildlife and can alleviate the risk of surface water flooding, as pointed out in the report on 'Managing road verges for wildflowers', published by the Mayor in January 2025. It states: "These verges cover almost 1,500 hectares – more than 1.5 times the size of Richmond Park."

The consultation document also states: "The current London Plan is generally silent on rural London. However, in the context of the government consultation on land use and the London-wide Green Belt Review, a specific approach should be considered. This could include policy on nature interventions such as rewilding and woodland, energy, and water infrastructure. Examples include solar farms, flood mitigation and reservoirs and industrial farming and other agriculture that needs planning permission." Climate resilience in the capital should be treated as a priority for both urban and rural areas.

5.7. Green infrastructure and biodiversity

The consultation document states: "The Urban Greening Factor (UGF) is a tool used in London to set greening targets for developments and is intended to make greening a fundamental part of design. It takes account of both the quality and amount of greening provided (such as trees and green roofs)." The use of UGF should be updated to include measurement of the benefits of climate resilience from greening activities.

5.8. Water

This section of the consultation document states: "The London Climate Resilience Review looks at London's resilience to climate change. It highlights risks and challenges around water management, flood resilience, urban drainage, and ensuring sustainable water infrastructure for London's future." However, this section offers no information about how these risks will be managed in the short, medium and long term. Given the scale of the risks, this is a shocking omission.

5.10. Flood risk management

The consultation document states: "A new London Surface Water Strategy is being prepared, which aims to address the biggest flood risk challenges facing London." However, this section provides no indication of the recommendations of the London Surface Water Strategy, suggesting a lack of communication between the teams producing the Strategy and the Plan.

5.11. Water management

The current London Plan promotes a catchment-based approach to water policy, with acknowledgement of local plans and development proposals. It notes: "Since the plan was published, it has become recognised that it is even more urgent to address the risk of drought and flooding. There is also a need for water demand management, and rising concern about London's water quality." It adds: "This follows work on an integrated water management strategy and the London Surface Water Strategy, in dealing with continuing water issues." However, the document provides no information about how these risks should be managed collectively.

5.12. Transport's role in London's growth

The consultation document indicates that London's transport networks are "among the best in the world", but "there are still some significant challenges, particularly as London continues to grow". However, the growing impacts of climate change are not identified among the list of challenges, indicating a lack of understanding of the extent and scale of the risks.

5.13. Sustainable transport networks to support growth

The consultation document notes that the next London Plan "could require local plans to set out clearly mapped transport interventions to enable and underpin sustainable growth". However, the list of interventions does not include any measures to adapt to the growing impacts of climate change, which could pose an increasing threat to London's transport network.

5.16. Fire safety

The consultation document states: "The Mayor has continued to make clear his commitment to improving fire safety and that further changes need to be made to the building regulation guidance." However, the document fails to acknowledge the increased risks to London from wildfires due to climate change, even though the scale of these risks were shockingly exposed in summer 2022. The London Plan needs to address these risks, as recommended by the London Climate Resilience Review.

5.17. Air quality

The consultation document rightly recognises that "poor air quality continues to impact Londoners, with thousands dying prematurely because of exposure to air pollution every year". However, it fails to acknowledge that much of the mortality that occurs each year is due to a combination of air pollution and heat, particularly during hot and still summer days. The Mayor should accept that the impacts of climate change are as much of a threat to the lives and livelihoods of Londoners as air pollution.

5.18. Heat risk

It is welcome that the consultation explicitly considers the risks from extreme heat, albeit on page 73 of 76. It states: "The London Climate Resilience Review highlights the risks London is facing from extreme weather. It shows that London is experiencing more heatwaves and risks from overheating." However, this section focuses on the impact of the urban heat island, but fails to mention that most of the impacts of heat result from the overheating of buildings which damage health and productivity.

5.19. Healthy communities

The consultation document claims that "health, safety, and wellbeing are woven throughout this document and development of the next London Plan", including "tackling emissions and increasing resilience to the impacts of climate change such as over-heating and flood risk". However, this submission of evidence clearly demonstrates that climate adaptation and resilience is not embedded in the priorities outlined in the consultation document.