

Committee(s): Health & Wellbeing Board – For information	Dated: 04/02/2026
Subject: Update on the progress towards heat and water stress climate adaptation actions in relation to health and wellbeing	Public report: For Information
This proposal: Delivers Corporate Plan 2024-29 outcomes	<ul style="list-style-type: none"> • Leading Sustainable Environments • Providing Excellent Services • Diverse Engaged Communities
Does this proposal require extra revenue and/or capital spending?	No
If so, how much?	N/A
What is the source of Funding?	N/A
Has this Funding Source been agreed with the Chamberlain's Department?	N/A
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Summary

The Health and Wellbeing Board was presented with two climate-focused reports, specifically on overheating (November 2024) and water stress (July 2025).

This paper provides a progress update on actions taken by the Corporation to address these climate-related risks in the City.

Progress has been made in improving resilience to heat and water stress, including expanding the Cool Spaces network from 3 to 16 locations, planting new street trees, completing an internal heatwave exercise, and maintaining 18 active public drinking water fountains.

Further action is needed to strengthen health service preparedness, expand access to drinking water in high-footfall and greenspace areas, engage communities in resilience planning and improve data sharing on health impacts during extreme weather events.

Continued collaboration across system partners is essential to embed climate risks into public health planning and ensure the Square Mile remains resilient to future challenges.

Recommendation

Members are asked to:

- Note the progress update provided in this report.

Main Report

Background

1. At the November 2024 meeting of the Health and Wellbeing Board, a paper was presented outlining the impact to public health arising from overheating, and the potential opportunities and risks of acting.
2. A related paper, focusing on water stress and drought as a health-related climate risk, was subsequently presented to the board in July 2025.
3. The Square Mile faces an increasing risk of overheating and water stress driven by climate change. Rising temperatures, compounded by the Urban Heat Island effect, are expected to have significant public health implications, including risks to the resilience and operational viability of healthcare and social care infrastructure.
4. Wider determinants of health will also be affected, with impacts on education settings, housing quality, workplace productivity, and access to safe public spaces, disproportionately affecting vulnerable populations and exacerbating existing health inequalities.
5. Water stress, including the risks of regional drought and localised disruption from burst water mains, is an increasing challenge for London and the South-East of England. Existing pressures on water supply are expected to be exacerbated by climate change, population growth, and ageing infrastructure. Over time, these pressures are likely to intensify impacts on public health, including risks to

hygiene and sanitation, healthcare delivery, heat-related illness, and the resilience of critical services, with disproportionate effects on vulnerable populations.

6. At previous Board meetings, members requested further detail on the actions being taken across the City Corporation to address overheating and other climate-related risks.
7. This paper responds to that request and provides an update on additional actions implemented since. For clarity, actions are presented in two categories: **preparatory responses**, undertaken in advance of heatwaves and drought, and **incident responses**, implemented during periods of extreme heat or water supply disruption.

Current Position

Preparatory activity

8. The London Risk Register (2025) identifies extreme heat as a major and growing risk, with impacts on population health, critical infrastructure, and the power grid¹.
9. While the City Corporation's **Corporate Risk Register** recognises climate change as a risk, overheating is not currently articulated as a distinct risk. Notwithstanding this, there continues to be a growing Corporate awareness of the impacts and opportunities associated with climate change, which is increasingly reflected through climate considerations embedded within relevant strategies, resilience planning, and preparatory activity across the organisation and partner-systems.
10. The **Climate Action Strategy** (CAS) has four core aims. One of these is to increase resilience to climate change in our buildings, public space and infrastructure. This includes resilience to overheating and extreme weather events including heatwaves and drought.
11. The **Resilient Buildings workstream** of the CAS is focused on strengthening the resilience of City Corporation-owned buildings. Detailed assessments of overheating risks across the estate have been completed, and pilot schemes for physical resilience interventions are now being progressed.
12. The **Mainstreaming Climate Resilience** workstream, part of the CAS, is responsible for enhancing preparedness across the City Corporation in key operational areas. Specifically, the Environmental Resilience Team collaborates with colleagues to determine how overheating and water stress affect their respective services and to develop mitigating actions. A core component of this workstream is the strengthening of our public health programme.
13. The **Cool Streets and Greening** workstream is focused on enhancing climate resilience within the public realm. Key initiatives include planting 100 new street trees for shade and improving both the quantity and quality of green spaces, which will help mitigate the urban heat island effect. Furthermore, an assessment of the impact on road surfaces was conducted, with the results being integrated into the climate materials catalogue.
14. Policy CR1 of the draft **City Plan 2040** aims to address the reduction of risks related to overheating and the urban heat island effect. To comply with this policy,

¹ Greater London Authority. [London Risk Register](#). 2025.

developers must demonstrate how they will mitigate overheating both within their developments and in the surrounding areas. Furthermore, major developments must meet the BREEAM sustainability standard² for climate adaptation. Compliance is then reviewed by the Sustainability and Environmental Resilience Teams.

15. Since 15 June 2022, **Building Regulation Part O** has been in force, requiring new residential developments to limit unwanted solar gains during summer and to provide adequate means for removing excess heat from indoor living spaces. Where the City Corporation acts as the **building control body**, the district surveyor assesses compliance with these requirements. District surveyors also enforce **Building Regulation G2**, which aims to prevent the undue consumption of water.
16. The **Transport Strategy** sits alongside the City Corporation's City Plan 2040. The strategy aims to create a more climate-resilient street network and public realm through use of materials, and planting more trees and greenery across the schemes³. These opportunities and interventions also deliver co-benefits for reducing overheating risk and strengthening climate resilience.
17. The **Natural Environments** division leads the Nature Conservation and Resilience Strategy. The strategy aims to protect biodiversity and ecosystems while increasing their ability to withstand and recover from environmental stresses like climate change⁴. The strategy includes a core objective to strengthen climate resilience across the Corporation's open spaces, including reducing overheating risks through improved land management, greening, and shading. In addition, through the CAS Carbon Removals workstream, work is underway to strengthen wildfire prevention protocols, including convening a cross-departmental group of internal experts to share best practice, improve preparedness, and reduce the risk of heat-related incidents.

Incident responses

18. City Operations and Preparedness:

- a. **Staff safety:** City Corporation employees engaged in outdoor and/or physical labour are especially at risk during periods of extreme heat. To mitigate the risk of adverse health due to overheating, guidance is issued by the Health and Safety executive.
- b. **Water stress and drought:** Measures to address water stress include the water fountain programme, the public refill scheme, and the introduction of drought-resilient planting across City gardens.
- c. **Cooling and access to drinking water:** Access to public drinking water can support individual cooling during periods of extreme heat. There are a number of disused water fountains across the City, including one in the recently reopened Finsbury Circus Gardens. While GLA mapping currently shows two public drinking water fountains within the Square Mile, City of London

² [BREEAM](#) (Building Research Establishment Environmental Assessment Method) provides a sustainability assessment method for the built environment.

³ City of London Corporation. [Transport Strategy](#). 2024.

⁴ Natural Environment - City of London Corporation. [Nature Conservation and Resilience Strategy](#). 2024.

mapping indicates that additional fountains are available across the City, with 18 locations identified.

d. Emergency planning:

- Emergency Planning Teams are intensifying their focus on climate risks, including heatwaves. Following the unprecedented 40°C temperatures recorded in London in the 2022 heatwaves, a pan-London exercise, *Exercise Helios*, was conducted in 2024 (which involved participation from the City Corporation) to assess preparedness and response to extreme heat.
- More recently, the City Corporation's Resilience and Environmental Resilience teams led an internal heatwave exercise in May 2025. The exercise considered local risks associated with a prolonged period of extreme heat and included an assessment of public health preparedness and potential impacts.
- Planning is underway to deliver a water stress/drought exercise specific to the City for 2026.

19. **Port Health & Public Protection** is particularly susceptible to climate-related impacts, where service disruption could result in significant downstream consequences. Critical services, such as the Heathrow Animal Reception Centre, already include extreme heat scenarios in their annual business continuity plans, specifically addressing staff levels and operational delivery.

20. **Cool Spaces network.** Cool spaces are indoor spaces for Londoners to shelter from the sun, cool down, rest and take respite on hot days⁵. Cool spaces are suggested by boroughs, community groups, faith-based or cultural organisations and others, and validated based on specific criteria. Cool spaces are vital for critical areas like the Square Mile; in 2025, the number of cool spaces there grew from 3 to 16.

21. The **Planning for Sustainability Supplementary Planning Document (SPD)** was officially adopted in 2025. The SPD provides guidance on how developers should address environmental sustainability, including measures to tackle the Urban Heat Island effect and manage overheating risk, as part of the planning application process. Planning applications are required to demonstrate how these considerations have been integrated into design and delivery, supporting climate resilience and improved environmental outcomes across the City.

22. The SPD also sets planning policy requirements for residential developments to meet a water efficiency standard of 110 litres per person per day, alongside guidance on water use in commercial developments. Planning applications are required to demonstrate how these considerations have been integrated into design and delivery, supporting climate resilience and improved environmental outcomes across the City.

⁵ Greater London Authority. [Cool Spaces](#). 2025.

Current progress and further opportunities

23. Actions proposed to the Health and Wellbeing Board to address overheating included: strengthening place-based partnerships, promoting cooling-focused roof design; undertaking or participating in overheating exercises; developing a network of cool spaces; and expanding the role of community champions to support residents most vulnerable to climate change impacts.
24. While several of the actions detailed above have been progressed, further opportunities remain to strengthen and embed this work (potentially as part of the pending refreshed Climate Action Strategy). There are further opportunities to improve adaptation to heat and water stress. For overheating these include the following:
 - a. Improving understanding of heat risk within the Square Mile, including the recording, management, and adaptation of housing and other critical buildings such as community centres and libraries.
 - b. Continued promotion of the Cool Spaces scheme, and ensuring existing sites continue to meet scheme requirements.
 - c. Enhancing workforce safety through appropriate heat-related guidance.
 - d. Improving data sharing, including healthcare utilisation during periods of extreme heat, to better understand impacts and inform future adaptation.
 - e. Working with health system partners to understand readiness for extreme heat scenarios and identify priorities for preventative measures in buildings and service delivery work.
25. The Board was also presented with several actions to mitigate water stress including:
 - a. Reviewing existing drought preparedness plans.
 - b. Promoting the registration of vulnerable residents and communities with the (utilities) priority services registers.
 - c. Organising a drought emergency exercise.
 - d. Disseminating best practices for water efficiency measures.
 - e. Ensuring clear public communication about drought impacts and opportunities for residents to take action.
26. For water stress, additional potential actions are detailed below:
 - a. Incorporate water stress scenarios into Business Continuity Planning.
 - b. Expand public drinking water fountains, focusing on City Gardens and other high footfall areas.
 - c. Monitor and share data on health impacts and healthcare service utilisation during periods of water stress.
 - d. Facilitate knowledge exchange and sharing of best practices on water efficiency and management strategies across all sites and services by bringing together asset and facilities managers.

- e. Raise awareness of water use, conservation and safe drinking practices during droughts.

Proposals

27. Further climate-related topics will be brought as appropriate. It is proposed to continue to report ongoing activities related to this series of topics on an annual basis to the Health and Wellbeing Board.

Key Data

28. Impact of rising temperatures and heat:

- London's heat-related mortality rates are projected to double by 2030 and quadruple by 2050 across all age groups.
- In 2024, the global temperature surpassed 1.5°C for the first time. Current policies suggest a trajectory towards 2.6°C warming.
- For the Square Mile, the Met Office forecasts that a 2°C warming scenario would lead to summer maximum temperatures approximately 3.6°C higher, coupled with a 9% reduction in summer rainfall.
- Temperature increases will manifest as more frequent days above 35°C. Health consequences include heat-related illnesses, increased hospital admissions, or death. Wider sector impacts (e.g., transport disruptions, due to track buckling on railways and road melt).
- Tropical nights (above 20°C) will become more common, causing heat stress and putting vulnerable people at greater risk of hospitalisation or death.

29. Water stress and demand:

- In 2024, London's water demand was 2,104 million litres per day (ML/d), with a deficit of 143 ML/d.
- By 2024, demand is anticipated to rise to 2,246 ML/d (an increase of 104 ML/d). The projected deficit is expected to increase significantly to 362 ML/d, representing 16% of the total anticipated demand.
- The Square Mile currently consumes 9.42 ML/d of water, with 8.17 ML/d supplied to commercial premises, and the remainder to residential users. Without intervention, this consumption is modelled to increase by 14% by 2050. However, high-ambition water saving measures, including retrofitting and new building development, could reduce consumption to 9.12 ML/d while still accommodating anticipated growth.
- East London presently experiences 88 days of water stress annually (where water usage exceeds the system's intake). This is projected to increase to 234 days per year under a scenario of high population growth and high investment. Under a lower population growth (and thus limited investment) scenario, water stress is expected to rise to 363 days, virtually every day of the year.

Strategic implications

Aligns with Corporate Plan 2024-2029 outcomes such as Leading Sustainable Environment and Providing Excellent services, by improving climate resilience and protecting public health.

Financial implications

No additional revenue or spending required for this report. Continuing actions largely involve coordination and engagement.

Resource implications

Resources for most actions are covered by the Public Health team and the Environmental Resilience Team, working as part of the Climate Action Strategy. Collaboration across teams and organisations will require staff resources for needs such as planning, training and exercising.

Legal implications

Aligns with statutory duties under the Civil Contingencies Act 2004 by planning, exercising and updating Business Continuity plans.

Risk implications

Addresses 'very high' risk of heatwaves and drought as scored in the London Risk Register, and City of London Corporation Borough Risk Register. Actions potentially reduce health risks and operational risks. Failure to act could lead to cascading risks, including reputational.

Equalities implications

Positive impact: interventions protect vulnerable groups who are disproportionately affected by heat and water stress. Actions such as cool spaces specifically consider accessibility and inclusion in the criteria for spaces.

Climate implications

Directly addresses climate risks through climate adaptation actions. Supports resilience objectives under CAS and Corporate Plan.

Security implications

None.

Conclusion

30. Both extreme heat and water stress pose serious risks to the Square Mile and there are significant public health impacts that need to be addressed. Significant progress has been made to date, with key achievements including increasing the number of registered 'cool spaces' from 3 to 16, undertaking an internal heatwave exercise and planning for a drought exercise in 2026. Many other actions have been taken as described in this report, and there is support for further actions to continue.
31. Embedding climate risks into public health planning and policy is an integral part of improving the resilience of the Square Mile and the health of its residents, workers, and visitors. Continued actions are needed to: expand access to drinking fountains; strengthen health service preparedness; develop

community engagement on these issues; and improve data sharing with health partners. Continued support from the Health and Wellbeing Board and endorsement of ongoing actions and future proposals is important to maintain momentum.

Appendices

None

Background Papers

[2023-11-24 - Climate & Health – Opportunities for Collaboration](#)

[2024-11-15 - Health and Wellbeing Board - Overheating and Health](#)

[2025-07-11 - Health and Wellbeing Board - Health and Water Stress \(1\)](#)

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