

Committee(s): Health & Wellbeing Board – For Decision	Dated: 04/02/2026
Subject: Climate Driven Health Risks: Vectors & Vector Borne Diseases	Public report: For Decision
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
Report of:	Dr Sandra Husbands Director of Public Health
Report author:	<p>Tim Munday Lead Environmental Resilience Officer, Environment (Presenter)</p> <p>Ratidzo Chinyuku Senior Public Health Specialist, CCS (Presenter)</p> <p>Sam Murphy Environmental Resilience Officer, Environment</p>

Summary

Climate change is increasingly affecting public health, with disproportionate impacts on vulnerable groups, requiring a Just Transition¹ approach. Building on previous Board reports on overheating (November 2024) and water stress (July 2025), this paper focuses on the emerging risks associated with pests and vector borne diseases (VBDs). Appendix 1 provides a progress update on actions taken by the Corporation to address climate-related water stress and overheating risks.

Climate change and rising temperatures are altering the ecology of non-native and invasive pests and vectors. VBD risks are particularly relevant to the City of London due to its dense daytime and working population, high visitor footfall, extensive transport links, and role as a global financial hub.

The City of London Corporation also has a unique role through its management of extensive open spaces, port health responsibilities, and statutory health protection functions.

Horizon scanning through the City Climate Action Strategy has identified four priority vectors posing the greatest risk to human health, including invasive mosquitoes and ticks associated with dengue, West Nile virus, Lyme disease, and other serious infections.

The mitigations proposed in this report include staff training, resilience planning, continued support for national surveillance programmes, and the establishment of a biosecurity working group to strengthen horizon scanning and local monitoring of climate-related health risks, recognising that a One Health approach is crucial to addressing these complex and interrelated issues.

A related paper will be taken to the Port Health and Environmental Services Committee, tailored to its specific focus.

Recommendations

Members are asked to:

1. note the report
2. approve and actively support enhanced collaboration between system partners on the issues outlined in paragraph 26.
3. agree to receive annual updates on related actions taken forward through the City of London Climate Action Strategy.

Main Report

Definitions

1. A **One Health Approach** recognises that the health of humans, animals, and the environment are closely interlinked. One Health is an internationally recognised

¹ Source: UNECE. [Guiding Principles for Just Transition](#). 2025.

The Just Transition approach is a framework that seeks to balance environmental sustainability with social and economic justice. It aims to ensure that workers, communities and marginalised groups are actively supported in the shift toward a low-carbon future.

approach to tackling issues such antimicrobial resistance, and impacts of climate change on public health.

2. **Biosecurity** refers to precautions that aim to prevent the introduction and spread of harmful organisms, disease or infection. This includes emerging and re-emerging infectious diseases, vectors, vector borne diseases and invasive non-native species. Biosecurity prevents harmful impacts to human, animal, and plant health.

Background

3. Vector borne diseases (VBDs) are infections transmitted by arthropods such as mosquitoes and ticks, whose distribution and activity are strongly influenced by climate, alongside global travel, trade and urbanisation, and growing interconnections between human, animal and environmental health.
4. The Climate Change Risk Assessment has given the risk from VBDs in the UK as “more action needed”², and primary vectors are ticks and mosquitoes. Horizon scanning for the City Corporation has identified emerging infections, climate-sensitive diseases, plant pests and diseases, and invasive species as key risk categories.
5. VBD risks have increased following the first detection of West Nile virus genetic material in the UK in May 2025, alongside the northward spread of invasive mosquito vectors such as the *Aedes albopictus* (tiger mosquito) from Europe, including Italy and Croatia³, which have already experienced dengue and other VBD outbreaks.
6. London already has a suitable climate for *Aedes albopictus*, with detections in Kent (2016) and West London. It is predicted that most of England will become suitable for its establishment by the 2040s and 2050s⁴.
7. While sustained transmission of West Nile Virus and dengue is not yet established in England, climate change is expected to increase future outbreak risk in the South East of England from 2050. Climate change is also expected to drive Lyme disease through longer transmission seasons and increased human-and-tick contact.
8. Once a vector species is established, it is extremely difficult to eliminate and is likely to be associated with substantial public health impacts, alongside wider economic costs affecting leisure, travel and tourism. As a result, national policy prioritises early detection and control, with enhanced vector surveillance, alongside field-based studies to understand ecological drivers of changes in vectors and VBDs nationally.
9. The UK Health Security Agency⁵ leads the national strategy and contingency planning for invasive mosquitoes, and implements rapid control measures when invasive species are detected (e.g., reducing breeding sites). The UK Department for Environment, Food & Rural Affairs has included biosecurity as one of its

² UK Climate Risk. [Summary for England \(CCRA3 - IA\)](#). 2021.

³ UKHSA. Invasive mosquito surveillance: Information for local authorities. 2025.

⁴ HECC. [Direct and indirect effects of climate change on vectors and vector borne diseases](#). 2023.

⁵ UKHSA. [UKHSA Advisory Board: Preparedness for Environmental Hazards](#). 2025.

national goals amongst its Environmental Improvement Plan 2025⁶. This states that biosecurity will be enhanced to protect our natural environment and boost the health and resilience of plants, animals, ecosystems and people.

Risks Associated with Vectors and Vector Borne Disease City of London

10. VBD risks are particularly relevant to the Square Mile due to its dense daytime and working population, high visitor numbers, and its role as a global financial hub.
11. Vulnerable and disadvantaged groups are likely to be disproportionately affected by VBDs due to differences in exposure, underlying health conditions and capacity to adapt, with the potential to widen existing health inequalities if risks are not effectively addressed.
12. Horizon scanning through the City Climate Action Strategy has identified four priority vectors that pose the greatest risk to human health:
 - a. *Aedes albopictus* (associated with dengue, chikungunya and Zika viruses)
 - b. *Culex modestus mosquito* (associated with West Nile Virus)
 - c. Native tick species (linked to Lyme disease)
 - d. Non-native tick species (with the potential to transmit Crimean–Congo haemorrhagic fever and tick-borne encephalitis)
13. The horizon scan has identified the need for increased resourcing to enhance health protection training, capability and capacity within Public Protection in response to increased demand and the ongoing and growing risk of vectors and VBDs.
14. Climate change impacts, including flooding, and associated adaptation measures (e.g., land-use change for flood control) may alter native mosquito populations or create additional habitat for invasive species.

Current Position

15. The City Corporation manages vector and VBD risk through its Category 1 responder role⁷, local authority functions, port health and public protection responsibilities, and land management activities. The climate and health agenda is also being progressed through the Climate Action Strategy (CAS).
16. The CAS aims to enhance the resilience of infrastructure, public spaces and services to climate change, including preparedness for new and emerging pests and diseases.
17. As part of the Strategy, the Mainstreaming Climate Resilience workstream focuses on enhancing organisational preparedness across key functional areas. In this capacity, the Environmental Resilience Team works with departments across the City Corporation to assess risks from pests and diseases, their

⁶ DEFRA [Environmental Improvement Plan \(EIP\) 2025](#)

⁷ Category 1 responders under the Civil Contingencies Act 2004 have statutory duties to assess risk, plan for emergencies and coordinate responses to incidents that may pose a serious risk to public health, including VBDs.

potential service impacts and appropriate preventative measures. This has included the production of a horizon scanning report setting out the current position across the organisation, and informing some of the recommendations in the Proposals section of this report.

18. As the Port Health Authority for the London Port Health District⁸, the City Corporation is responsible for monitoring food and feed imports that may introduce pests, pathogens or vectors. In addition, port health responsibilities include inspections of vessels, ports and businesses (in the port district), and wider environmental health regulation and enforcement, all of which address other potential routes of introduction. These responsibilities sit alongside managing biosecurity pressures at Heathrow's Animal Reception Centre, where imported animals may carry vectors and VBDs.
19. The Public Protection team also oversees key environmental health responsibilities, including air and water quality, pollution control, licensing, pest control, and management of the Coroner's service, all of which support early detection, prevention and response to vector and VBD risks.
20. In addition, the City Corporation is the sole charity trustee for nine charities that manage large areas of open space and through the Natural Environment division, is responsible for around 4,400 hectares of land. Habitat management influences vector ecology and disease risk, with habitat change and biodiversity loss increasing the likelihood of pests, invasive species and VBDs becoming established, reinforcing the need for early detection through partnership working.
21. Overall, the increasing interconnections between human, animal, plant and environmental health may create complex biosecurity risks that require coordinated, system-wide responses as part of a One Health approach. This approach emphasises equity across sectors, as well as recognising the importance of biodiversity, natural space, and animal health and wellbeing alongside human health.
22. VBD risks have significant implications for all Member partners of the Health and Wellbeing Board, given their roles in public health, emergency preparedness, commissioning, patient advocacy, and health service delivery.
23. Addressing vector-associated risks therefore supports national biosecurity and broader health protection objectives, whilst helping to mitigate local public health impacts, health system pressures, and the risk of widening health inequalities.
24. To further mitigate risks associated with climate change and vector-associated risks, additional work is needed to strengthen joint surveillance and intelligence, risk planning, and system-wide preparedness and coordination. This will enable earlier identification and more effective management of emerging vector risks (as well as other climate-related risks beyond the scope of this report), within the context of a robust biosecurity framework.

⁸ Constituted under section 7 of the Public Health (Control of Disease) Act 1984.

Options

25. **Option 1 (not recommended):** Maintain the current level of engagement between partners, collaborating on a case-by-case basis where shared climate-related interests align in specific projects.

26. **Option 2 (recommended):** Health and Wellbeing Board as a collective body, and within their member organisations, use its influence to strengthen local partnership to address the health impacts of climate-driven pests and diseases, as outlined in the Proposals section below.

Proposals

27. The Board is asked to:

- i. Approve and actively support stronger collaboration to identify and implement shared actions that prevent and reduce the harms caused by cascading climate impacts, including those related to vectors, pests, and diseases.
- ii. Recognise and integrate a One Health approach into future public health strategies for addressing climate-sensitive or associated diseases, including VBDs, through cross-sector collaboration, capacity building, and recognition of the interdependence of human, animal, and environmental health.
- iii. Consider and advise on the following proposed public health-related actions:
 - b. **Risk Assessments:** Members are asked to review their respective organisational risks related to vectors and VBDs.
 - c. **Training:** For City Corporation and Member partners, improve staff training on climate-sensitive pests, invasive species, and VBD pathways, including early identification, reporting, and response.
 - d. **Capacity building:** Within City Corporation, address challenges identified through horizon scanning ensuring operational readiness to pest and vector pressures, as they potentially increase with warming temperatures.
 - e. **Resilience planning:** Embed climate-driven pest, vector, and disease risks into long-term corporate resilience and adaptation planning. Assess how replacement strategies (e.g. tree replacement or green infrastructure) may influence exposure to pests and vectors (e.g. mosquitoes, ticks) under current and future climate conditions, to inform future action and mitigation.
 - f. **Stakeholder engagement:** Build relationships with neighbouring local authorities, UKHSA, and community groups to foster collaborative biosecurity efforts and public awareness of climate-sensitive pests, invasive species, and vector borne disease pathways.
 - g. **Surveillance and coordination:** Continue to support national surveillance programmes and establish a City Corporation biosecurity working group to align efforts, improve horizon scanning, and enhance local monitoring and communication of climate-related health risks to

partners through appropriate channels such as the City & Hackney Health Protection Forum.

- h. **Policy and strategy development:** All organisations to refresh and expand biosecurity policies (e.g., plant, habitat and animal health policies). For the City of London Corporation to adopt a comprehensive biosecurity strategy that integrates divisional priorities and ensures coordinated action. Green infrastructure, and environmental health policies to explicitly address climate change, pests, and vector borne disease risks. Apply a formal Health Impact Assessment framework to tree and green infrastructure replacement strategies to assess potential health impacts before implementation.
28. It is recommended that these actions are taken forward through the City of London CAS and proposed biosecurity working group, and that progress is reported back to the Health and Wellbeing Board annually.
29. A related paper, which will include aligned recommendations, will be taken to the Port Health and Environmental Services committee in due course.

Corporate 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. Continuing actions largely involve coordination, engagement and monitoring.

Resource implications

Currently, resources for most actions are drawn from the Public Health Team and the Environmental Resilience Team, which operates under the umbrella of the Climate Action Strategy. However, many teams have indicated a need for specialist staffing (e.g. Environmental Health). Cross-team and inter-organisational collaboration will necessitate staff resources for crucial functions like planning, training, and exercises. It is anticipated that the effects of these climate-related risks and diseases would place a significant burden on existing resources, impacting areas from public health to habitat management.

Legal implications

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

Risk implications

Once an invasive species has become established, eradication is often extremely difficult, if not impossible. For this reason, robust surveillance and early detection are essential to mitigate this risk.

The City of London Corporation has a legislated role and responsibility in the prevention of, and response to, infectious diseases, including those linked to invasive

species. The risk of emerging infectious diseases is reflected in the London Risk Register, where it is scored as very high, and in the City of London Corporation Borough Risk Register and Animal Disease Register, where it is scored as a medium risk. Effective action has the potential to reduce both health and operational risks, while failure to act could result in cascading impacts, including reputational damage.

Equalities implications

Evidence shows that socioeconomic indicators do not consistently predict the risk of vector borne disease transmission from *Aedes* mosquito; human-vector contact patterns are highly heterogeneous and location-specific⁹.

There will be lack of prior immunity to a newly introduced VBD, however, inequalities may emerge through differences in exposure, existing health conditions, socioeconomic status and adaptive capacity. Therefore not taking action to mitigate the impacts from climate and vectors is likely to exacerbate existing health inequalities.

Climate implications

The proposed recommendations directly support the resilience objectives outlined in the Climate Action Strategy.

Security implications

None.

Conclusion

30. Vectors and vector borne diseases pose a growing public health risk that is likely to be exacerbated by climate change. Robust surveillance, preparedness, and collaborative action are essential to prevent the establishment of invasive vectors and reduce the risk of disease transmission.

Background Papers

- [2023-11-24 - Climate & Health – Opportunities for Collaboration](#)
- Appendix A - Update on the progress towards heat and water stress climate adaptation actions in relation to health and wellbeing

Authors

- **Tim Munday**
Lead Environmental Resilience Officer
E: tim.munday@cityoflondon.gov.uk

⁹Whiteman, A., Loaiza, J.R., Yee, D.A., Poh, K.C., Watkins, A.S., Lucas, K.J., Rapp, T.J., Kline, L., Ahmed, A., Chen, S., Delmelle, E. and Oguzie, J.U., 2020. [Do socioeconomic factors drive *Aedes* mosquito vectors and their arboviral diseases? A systematic review of dengue, chikungunya, yellow fever, and Zika virus.](#) One Health, 11, p.100188.

- **Ratidzo Chinyuku**

Senior Public Health Specialist

E: Ratidzo.chinyuku@cityandhackneyph.hackney.gov.uk

- **Sam Murphy**

Environmental Resilience Officer

E: sam.murphy@cityoflondon.gov.uk

Appendix A - Update on the progress towards heat and water stress climate adaptation actions in relation to health and wellbeing

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
Report of:	Dr Sandra Husbands - Director of Public Health
Report author:	<p>Ratidzo Chinyuku Senior Public Health Specialist, CCS</p> <p>Tim Munday Lead Environmental Resilience Officer, Environment</p> <p>Sam Murphy Environmental Resilience Officer, Environment</p>

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 risk of acting. A related paper, focusing on water stress and drought as a health-related climate risk, was subsequently presented to the board in July 2025.
2. 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. 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.
3. 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.

4. 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. 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

5. The London Risk Register (2025) identifies extreme heat as a major and growing risk, with impacts on population health, critical infrastructure, and the power grid¹⁰. While the City Corporation's **Corporate Risk Register** recognises climate change and 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.
6. 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.
7. 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.
8. 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.
9. 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

¹⁰ Greater London Authority. [London Risk Register](#). 2025.

assessment of the impact on road surfaces was conducted, with the results being integrated into the climate materials catalogue.

10. 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, 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 standard¹¹ for climate adaptation. Compliance is then reviewed by the Sustainability and Environmental Resilience Teams.
11. 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.
12. 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 schemes¹². These opportunities and interventions also deliver co-benefits for reducing overheating risk and strengthening climate resilience.
13. 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 change¹³. 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

14. 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

¹¹ [BREEAM](#) (Building Research Establishment Environmental Assessment Method) provides a sustainability assessment method for the built environment.

¹² City of London Corporation. [Transport Strategy](#). 2024.

¹³ Natural Environment - City of London Corporation. [Nature Conservation and Resilience Strategy](#). 2024.

mitigate the risk of adverse health due to overheating, guidance is issued by the Health and Safety executive. This includes

- 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 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.

15. **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.

16. **Cool Spaces network.** Cool spaces are indoor spaces for Londoners to shelter from the sun, cool down, rest and take respite on hot days¹⁴. 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.

¹⁴ Greater London Authority. [Cool Spaces](#). 2025.

17. 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.

18. 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.

Current progress and further opportunities

19. 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.

20. 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). These include:

21. 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.

22. 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.

23. 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

24. Another climate and health related paper focusing on the impact of vector borne diseases is being presented to the board on 4 February 2026. 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

25. 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.

26. 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 team 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

27. 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.

28. 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 \(1\)](#)

Authors

Tim Munday

Lead Environmental Resilience Officer

E: tim.munday@cityoflondon.gov.uk

Ratidzo Chinyuku

Senior Public Health Specialist

E: Ratidzo.chinyuku@cityandhackneyph.hackney.gov.uk

Sam Murphy

Environmental Resilience Officer

E: sam.murphy@cityoflondon.gov.uk