LSE | Grantham Research Institute on Climate Change and the Environment

Preparing for extreme heat in London while minimising greenhouse gas emissions: a focus on emergency responses

Stakeholder workshop report

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About this report

This report summarises a workshop held in London in October 2024 that aimed to contribute to co-developing a strategy for adopting climate-resilient net zero responses to extreme heat through education and awareness-raising. The geographical focus of the workshop was the Greater London area. The workshop is described in further detail within the report.

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Contents

The workshop

This report summarises a workshop held in London in October 2024 that aimed to contribute to co-developing a strategy for adopting climate-resilient net zero responses to extreme heat through education and awareness-raising. The geographical focus of the workshop was the Greater London area. Its objectives were:

- To share emerging findings from the research to date[1]
- To gain participants' views and input on how best to keep Londoners cool during periods of heat without increasing their greenhouse gas emissions
- To enhance collective understanding of how adapting to the impacts of heat without increasing emissions can be incorporated into emergency responses and planning.

The workshop included a series of quickfire presentations that introduced the research topic, the science behind heatwaves, preparing for extreme heat, and how we work together to help those at risk. The presentations were followed by three interactive sessions during which participants worked in groups and individually to address the topics covered by the workshop. The workshops aimed to explore responses to extreme heat while minimising emissions, and this was explored further in the context of multiple, or concurrent risks occurring that could amplify the impacts of a heatwave. To that end, participants were divided into groups and in the first session some groups were asked to address a 'Heatwave + Wildfire' scenario, while others were provided with a 'Heatwave + Power Outages' scenario (see Appendix 1). Groups were then asked to identify the standard responses that volunteers, staff and service users would expect to adopt to stay cool under these scenarios in London. Additionally, groups were asked to identify alternative solutions to stay cool with fewer/minimal emissions as well as the challenges of implementing such solutions within the scenarios. Finally, groups were asked to recognise what preparation activities would be needed to implement these low-emissions solutions in the long term and who would need to be involved to make it happen.

In the second interactive session, groups were asked to provide their own interpretation of the terms 'adaptation' and 'preparation' and how these are defined and used within their sectors. Participants were also asked to flag the main challenges at an organisational or strategic level to implementing low-emissions solutions for keeping cool during a heatwave.

For the third and final session, participants were asked to think about the key points to be included in the development of training to enable better awareness and community resilience during periods of extreme heat and who should lead the delivery of training for increased effectiveness. Participants were also asked to consider specific routes through which the training could be delivered. See Appendix 1 for further details.

Forty-two individuals took part in the workshop, representing emergency responders/charities (N=15), local authorities (N=16), academics and scientific organisations (N=8), national government (N=1) and non-profit organisations with no emergency response focus (N=1). The findings of the workshop are representative of the views of those who took part and may not include all views and ideas, therefore the outputs presented should be considered as non-exhaustive.

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[1] Since March 2024, Candice Howarth has been carrying out research into how preparations, prevention and responses to extreme heat can be designed and implemented in a way that does not further increase greenhouse gas emissions. This research has been conducted in close collaboration with the British Red Cross, to understand this particularly in the context of emergency responses. The workshop described in this report formed part of this project.

1. Summary of findings

1.1. Scenario findings: Standard cooling options against heat and alternatives

Standard cooling options to manage the impacts of extreme heat identified by groups across both scenarios included common measures that comprised the provision of active cooling or mechanical ventilation options, providing behavioural guidance, directing or evacuating people to cool spaces (including buildings and green spaces), promoting and facilitating hydration, supporting people in keeping their surroundings cool and providing mobile cooling opportunities (although this last measure was also flagged as currently not deployed in London). One group working on the 'Heatwave + Wildfire' scenario also mentioned the importance of giving staff responding to emergencies sufficient time to rest and consider the impact on people's mental health. Considering the emergency nature of the scenarios presented, many participants emphasised the need to prioritise keeping people cool and safe during periods of heat, and this in some cases would need to include the use of energy-intensive technologies such as air conditioning, regardless of the emissions these would produce.

Alternative low-emissions responses for both scenarios considered by groups comprised the provision of non-mechanical or low-energy consumption ventilation options, the provision of mobile cooling (with a particular emphasis on electric vehicles and solar options), water distribution, leveraging existing cool spaces in the community and providing shading through temporary solutions (e.g. curtains and covers, tents) and long-term solutions (tree planting and building upgrades). Among other responses, one of the groups also identified the distribution of hats, umbrellas and sunglasses to protect from the sun as a potential alternative measure.

Standard cooling options identified by groups for the London's 'Heatwave + Power Outage' and the 'Heatwave + Wildfires' scenarios

The following summary includes a combination of the response measures identified across the two scenarios (detailed responses for individual scenarios are presented in sections 0 and 2.1.2 and the measures in Table 2.1 and Table 2).

The measures identified included:

- Providing **active cooling or mechanical ventilation options**, such as air conditioning and fans.
- Sharing some form of **behavioural guidance** including using light and breezy clothing, alternative uniforms or wet garments, sleeping on the floor and taking showers or immersing feet in water to reduce body temperature, paying attention to the most vulnerable, and avoiding drinking caffeine and alcohol.
- Directing people to **cool spaces** and/or green spaces, including for example those spaces identified in the Greater London Authority (GLA) cool spaces map.
- Promoting **hydration**, for example by distributing bottled water.
- Providing shade or suggesting ways to **keep surroundings cool**, including closing shutters and blinds, using wet blankets to cover windows or providing shading devices and/or tents.
- **Mobile cooling**, although one of the groups mentioned that this measure had not been previously deployed in London. The measure was also proposed as an alternative low-emission solution by some groups.

One group working on the 'Heatwave + Wildfire' scenario also mentioned the importance of giving staff responding to emergencies sufficient **time to rest** and considering the impact on people's **mental health**).

Alternative low-emissions responses identified by groups for the 'Heatwave + Power Outage' and the 'Heatwave + Wildfires' scenarios

Groups were asked to consider potential low-emissions alternatives to stay cool during the scenarios provided. The summary below provides the measures identified for both scenarios together, as these were not heavily influenced by either of the scenarios.

The alternative low-emissions identified included:

- As an alternative to active cooling, **non-mechanical or low-energy consumption ventilation** measures, such as hand fans, natural ventilation (while minimising the risk of smoke exposure), or emphasising communications about passive cooling measures (such as temporary and permanent shading devices).
- **Mobile cooling** options, with the potential use of electric vehicles and solar panels, or through the involvement of Transport for London to provide air-conditioned buses.
- **Water distribution,** which could be deployed in a lower-emissions way by not using single-use plastic, promoting the use of water fountains, providing recycling bins for bottled water waste, and working with localised supplies.
- Leveraging **existing cool spaces** such as shopping malls, swimming pools, shaded places with trees, rivers and churches, community spaces such as schools, community hubs, and shops and restaurants.
- **Provide shading** using covers to shade windows and walls, shading tents, or long-term shading devices installed on buildings, and/or tree planting.

One of the groups also identified the distribution of hats, umbrellas and sunglasses to protect from the sun as a potential alternative measure which could be coupled with repurposing garments already owned to increase protection from solar radiation (e.g. scarfs or natural fabric clothing). Another suggested the identification of temporary short-term cooling locations in green spaces such as parks and gardens.

1.2. Scenario findings: challenges

Following the identification of 'Standard' cooling options and 'Alternative' low-emissions responses, groups were asked to identify the challenges of implementing such solutions within the scenarios. Across both scenarios, groups pointed out certain common challenges, which included the identification of suitable cool and/or green spaces, which were thought to be limited in London. This posed concerns about spaces' capacity to host sufficient people and the risk of overcrowding. Cool and green spaces were also associated with concerns related to their accessibility, safety and security, among other challenges. Coordination and communication issues were also flagged, particularly within the 'Heatwave + Power outage' scenario, but not exclusively. Transport and mobility challenges were raised in relation to staff and volunteers' capacity to mobilise, but also people's ability to reach cool spaces in case of transport disruptions and the risk of overheating while doing so. Additionally, participants mentioned operational and logistic constraints as well as the impact on groups and individuals as challenges.

Other concerns raised by individual groups included the fact that some buildings overheat, residents' possible non-compliance with heat guidance, the environmental and financial

impacts and the contribution towards increasing heat associated with the provision of active cooling, the risks associated with some of the measures (e.g. swimming health and safety and inefficiency of fans above certain temperatures thresholds), among others.

Common challenges identified by both groups across both scenarios:

- **Coordination or communication issues:** Concerns related to challenges in communicating with people were prevalent within groups addressing the 'Heatwave + Wildfire' scenario. However, concerns related to coordination challenges were raised across groups working on both scenarios. Issues related to coordinating the activation of responses (e.g. mobile cooling), multi-agency coordination, coordinating with parents, or the need to establish agreements with institutional and private partners and those responsible for rest centres were flagged.

- **Transport and/or mobility challenges** were identified concerning the capacity to evacuate people to cool spaces, with two groups working on the 'Heatwave + Power Outage' scenario raising concerns about the availability of public transport, and another group pointing out the risk of overheating on transport. Furthermore, groups also flagged potential challenges associated with the deployment of volunteers and staff and with the emissions associated with the distribution of supplies such as bottled water. One group raised concerns about the capacity to activate mobile cooling options.

- The **identification of suitable cool and/or green spaces** to host people during an emergency was associated with concerns related to the accessibility of premises, limited availability of suitable facilities and green spaces, lack of open spaces, cool space capacity and the risk of overcrowding, as well as safety and security concerns related for example to risks associated with the scenario (e.g. smoke during wildfires) or with wider concerns about access (e.g. open doors) and people's perception of safety.

- **Operations and logistical** concerns were raised in relation to staff and volunteers' capacity at local health services, the impact of power outages on medications, the capacity to provide active cooling, distributing water, keeping fridges operational, and securing storage for ice lollies, water availability and quality and bottled water expirations dates.

- **Impacts on vulnerable people** was identified as a concern due to the increased vulnerability of some individuals (e.g. care homes residents, elderly and homeless people), which posed concerns about the prioritisation of those at risk and about how to support a diverse mix of vulnerable people (e.g. infants, elderly, pre-existing health and mobility conditions) during the emergency. In relation to this, one group also flagged concerns about the fact that some boroughs are more vulnerable than others.

1.3. Preparation for low-emissions cooling solutions

Participants were asked to identify the preparatory actions needed to implement the low-emissions alternatives identified in the long term and who would need to be involved in the process. The themes mentioned by participants included:

- Identification and assessment of resources and interventions (e.g. mapping locations, vulnerable groups, available resources)

- Procurement and logistics

- Coordination and operational agreements
- Identifying funding
- Creation of new cool spaces
- Training and education
- Communications

Among the preparatory actions needed to implement low-emissions cooling solutions, groups mentioned the need to identify and map existing cool spaces and the creation of new ones within existing facilities, increase coordination across stakeholders, identify and address risks related to the provision of responses, the identification of funding opportunities, and the need to develop long-term measures. Participants also flagged the importance of identifying low-emissions solutions for cooling centres and the development of a community strategy for such centres. Furthermore, among the preparatory actions needed, participants referred to the need for anticipatory procurement, identifying supply and storage opportunities, opportunities for activating mobile cooling solutions, and the development of partnerships with the private sector – to ensure the availability of cooling supplies (such as drinking water, light clothes, and fans) but also to facilitate the implementation of shading opportunities (e.g. installing shading devices and/or mobile tents). Finally, groups identified the need for communication and education, and the removal of policy and regulatory barriers to implementation among other things.

Groups flagged that preparatory actions to implement low-emissions cooling solutions across both scenarios explored would require the joint participation of local authorities, emergency responders, the British Red Cross, voluntary groups and charitable organisations, non-governmental organisations (NGOs), community associations, institutional actors such as Transport for London and Heritage officers, and the private sector.

1.4. Acknowledging different ways of understanding adaptation and preparation

Groups provided different interpretations of the terms 'adaptation' and 'preparation', and they suggested that these terms are used in different ways across organisations. Overall, the term 'adaptation' was associated with risk management and risk mitigation and reduction. Most groups also thought that the term 'adaptation' was associated with long-term processes and dynamics, and that it was linked to changes in behaviours and culture, but also infrastructure. In line with this, most groups also associated 'adaptation' with policy, strategies or strategic goals, and planning.

The term 'preparation' was linked to emergency or stages of emergency response by many of the groups. Participants also believed that this term was bound to discrete or specific periods of time. 'Preparation' was also linked to step-by-step and targeted actions and planning linked to specific events. Some participants felt that it was easier for people to understand preparation and to identify actions that can be taken.

Finally, some participants mentioned that adaptation and preparation were occasionally used interchangeably, which could lead to confusion. While some of the attendees believed that it was helpful to differentiate between the terms, they also thought that this should be done without getting caught up in details and definitions.

1.5. Challenges to implementing low-emission cooling solutions at the organisational or strategic level

Attendees identified the lack of adequate funding, costs and/or limited implementation capacities as in combination the main barrier to implementing low-emissions cooling solutions. Staff reductions, limited resources and a lack of innovation were also cited among the difficulties hindering low-emissions cooling solutions. The second most common problem flagged was the lack of knowledge and understanding of the issues among leaders and communities. Groups also believed that organisational limitations and coordination constraints were hindering the capacity to implement low-emissions solutions among other difficulties such as the lack of a national-level strategy on the topic and a lack of buy-in among key stakeholders, to name a few issues.

1.6. Training to enable better awareness and community resilience during periods of extreme heat

In the third interactive session, participants were asked to think about the key points to be included in the development of training to enable better awareness and community resilience during periods of extreme heat and who should best deliver the training for maximum effectiveness. Participants were also asked to think about specific routes through which the training could be delivered.

Workshop participants suggested that training to enable better awareness and community resilience during periods of extreme heat should focus mainly on solutions, heat awareness, communications and the impacts of heat. Among other things, attendees suggested that training should incorporate information on heat vulnerability and how to support vulnerable people. Other suggestions included incorporating information on community resilience and preparedness response, coordination and collaboration, and building trust and partnerships.

Potential routes to deliver the training included involving community responders and voluntary and community sectors as well as social and health care providers. Attendees also believed that the training could be incorporated into existing training packages and that it could be delivered through e-learning platforms and games. Finally, the potential to incorporate training into school curricula and workplace/professional training was also mentioned, along with the possibility of disseminating the training through traditional and social media.

2. Detailed findings

2.1. Session 1: Exploring heat scenarios

During the first session, participants were divided into seven groups composed of a mix of different representatives of the institutions, organisations and groups attending the workshop. Groups were provided with handouts covering (1) a 'Heatwave + Wildfires' and (2) a 'Heatwave + Power Outage' scenario for London. Participants were then asked to discuss the scenarios and collectively address a first set of questions covering the identification of standard measures for keeping cool and potential low-emissions alternatives and challenges associated with the specific scenario assigned. Tables 2.1 and 2.2 provide an overview of the responses from participants across the different groups.

'Heatwave + Power Outage' scenario

Three groups in the workshop addressed the 'Heatwave + Power Outage' scenario and identified different standard options to keep cool, including hard and soft measures such as the use of air conditioning (3 tables out of 3: 3/3), directing people to cool spaces (2/3) and/or green spaces (2/3), suggesting ways to keep the surrounding environment cool (such as closing shutters and blinds (1/3) or using wet blankets to cover windows (1/3)). Other options included suggesting and supporting behavioural measures to support individuals such as promoting hydration (2/3), using light and breezy clothing and using alternative uniforms (2/3), sleeping on the floor (1/3) and taking showers or cold dips to reduce body temperature (1/3). Further options included sharing general behavioural guidance with the population (1/3) and the use of mobile cooling stations for vulnerable individuals (1/3).

Participants were then asked to identify the most common challenges to implementing the measures identified within the scenario explored, and these included a lack of power alternatives to operate air conditioning and the environmental and economic cost of doing this during a power outage (3/3). One group flagged that operating air conditioning contributed to increased local ambient heat. In addition to the challenges to providing active cooling, groups also identified a cascading effect of power reduction impacting the capacity to keep medical supplies cool (1/3), and potential impacts on water and other goods stored in freezers and fridges, including the capacity to access cool water (1/3).

Challenges relating to communication, and specifically in reaching the population if communication channels were disrupted were identified by all groups (3/3; one group thought that this could also impact the capacity to deploy volunteers during the emergency). Additionally, the impacts of the power outage on the transport network were identified by groups as a challenge to evacuate people to cooler locations (2/3). Evacuating people to cool and/or green spaces was also highlighted as problematic if accessible lifts were without power (1/3), the efforts required multi-agency coordination (1/3), and due to the limited availability of suitable open green spaces (1/3). Difficulties in making community spaces with water access and shower facilities available were thought to lead to further challenges in making facilities available to homeless individuals and there was a sense of an overall lack of availability of such spaces in London (1/3).

To overcome some of these challenges, groups identified the provision of mobile cooling options as a way to support the population (3/3), with the potential use of electric vehicles (2/3) and solar panels (1/3) as low-emissions alternatives. To overcome the limitations in active cooling due to possible power outages, groups suggested the distribution of hand fans (1/3) and emphasised passive cooling measures (1/3). The distribution of water was identified as a measure (2/3) that could be deployed in a low-emissions way by not using

single-use plastic and facilitating the use of water fountains (1/3). Groups suggested leveraging public and community spaces such as schools (1/3), community hubs (1/3), shops and restaurants (1/3) to support impacted populations. One group suggested that spaces and services located in less impacted areas (e.g. neighbouring boroughs) could support people in need based on the principle of mutual aid.

Table 2.1 on the next page shows a summary of participant responses to standard and required options available, and challenges faced in keeping cool without increasing emissions during a 'Heatwave + Power Outage' scenario.

Table 2.1. Summary of responses from tables considering the 'Heatwave + Power Outage' scenario. *Note:* *The content in this and subsequent tables represents participants' written responses and hence some of the entries may not be fully clear.*

What are your standard 'keeping cool' options?	Alternatives *Is there a 'low emission' way to do this?*	Challenges *Challenges with this from your scenario*
Active cooling/mechanical ventilation with fans	• Distribute hand fans • Target vulnerable groups such as care centres to relocate • Use high rated A/C (class A) • Emphasis on passive cooling measures	• A/C not operating/no power • A/C increases ambient heat • Loss of power and impact on medical supplies and standard cooling spaces • Costs and impact for the environment • Some boroughs have higher vulnerability to heat • Need to ensure business continuity in high vulnerability settings such as care homes
Cool spaces	• Shaded areas • Generated cool spaces • Mutual aid: cool space across border (e.g. another borough) • Stay at home • Advance welfare checks • Door knocking: British Red Cross/Local Authority • Go to spaces with air conditioning where there is no power outage	• Communications and reaching vulnerable people during power outage • No power: A/C and other appliances or machines power-operated won't work • Taps only • Accessibility issues (for example non-operating lifts) • Security and access • Priority Services Register access issues for vulnerable adults • Multi-agency strategic group coordination • Transport links may break down
Evacuation to shaded green space	• Mobile cool spaces • Shops and restaurants open to the public • Training in local businesses • Open small community gardens • Maps in blocks • Wayfinding signs	• Contradicting messages • May require public transport • Lack of open space • Communications and reaching vulnerable people during power outage
Hydration	• Coordinate with Thames Water (supply chain issues) • Prepare bottled water • Encourage checking on vulnerable neighbours • Prioritise Thames Water vulnerable customers list • Don't use single use plastic • Water fountains	• Affects the elderly and vulnerable people most • There might be distribution issues • Communications issue • With no electricity fridges may not freeze • Unsuitable water
Schools: clothing and behaviour	• Vehicles: electric buses • Mutual aid and support from other schools • School from home	• Parents: business impact • Clothing/uniform changes

Behavioural guidance information	• Pre-emptive measures are needed, and pre-training and coordination need to be in place	• Residents: non-compliance • Communications interruptions • Ability for volunteers to deploy
Staying indoors and closing shutters and blinds	• Pre-emptive messaging • Ask less vulnerable families to check in • Mobile cool spaces	• Houses can overheat, advice varies • Especially affects homeless people
Showers and cold dips	• Open community spaces with showers availability • Share advice about open water and swimming risks	• Make these community spaces available to homeless people • Make buildings available • Lack or limited availability in London
Light, breezy, and wet clothing	• Alternative uniforms • Pre-emptive - let people know ahead of time	• Communication channels are down • Affects people in uniform
Cooling windows with wet blankets near them. Sleep on floor with light bedding	n/a	n/a
Mobile cooling stations for vulnerable people	• Solar panels and electric vehicles	n/a

2.1.2. 'Heatwave + Wildfire' scenario

Four groups in the workshop addressed the 'Heatwave + Wildfire' scenario and identified standard solutions to support impacted people which included providing active cooling and mechanical ventilation (e.g. office fans, portable fans) (4/4). One group suggested that portable fans could be used to support volunteers during their deployment rather than all service users. All groups identified the promotion of hydration (4/4) as a measure and most groups identified the distribution of bottled water (3/4) as the standard response for this scenario. One group highlighted the possibility of securing bottled water and other items through pre-established partnerships with the private sector (1/4) to support impacted communities, which could allow responders to borrow assets during emergencies as opposed to buying them. The provision of shade (2/4) through shading devices, curtains and outdoor tents was also identified as a measure, and mobile cooling (2/4) was identified as a measure for keeping cool, although one of the groups flagged that this measure had not been previously deployed in London. Directing people towards the GLA's cool spaces map (1/4) and evacuating and managing vulnerable people to attend cooling centres and once they were there (1/4) were also identified as standard responses for this scenario. All groups identified diverse examples of guidance and advice that would be shared with the general public (4/4), including paying attention to the most vulnerable (1/4), using light and wet clothing to cool down (1/4), immersing feet in water (1/4), and avoiding drinking caffeine and alcohol (1/4). Groups mentioned the importance of giving staff responding to emergencies sufficient time to rest (1/4). They also talked about considering the impact on people's mental health (1/4), in particular for those most vulnerable such as children. Participants suggested that water-based games and the distribution of ice lollies for children could be measures to support them.

The challenges that emerged included smoke and air pollution as a potential hazard hindering the capacity to properly ventilate spaces due to having to keep windows shut (3/4). This was paired with concerns about the capacity to provide mechanical cooling options such as fans if there was limited availability (1/4), the inefficiency of fans once temperatures reach above 35°C (1/4), and the potential for power disruptions (1/4). Challenges relating to the provision of hydration included availability of supplies and storage locations (2/4), expiration dates of bottled water and the waste generated (1/4), and the emissions caused by transporting bottled water (1/4). In regard to the provision of shading opportunities, challenges related to the installation of shading devices (1/4), the capacity and size of outdoor tents (1/4), and the risks of smoke exposure and safety in outdoor shaded areas (1/4) were identified. When it came to mobile cooling opportunities, participants flagged funding and activation challenges coupled with service capacity concerns (1/4). Additional concerns were raised regarding the limited availability of staff and volunteers to respond (2/4), and the capacity to deploy resources and support (1/4) during this scenario. Groups highlighted issues relating to the identification of suitable cool spaces (1/4), their capacity (1/4), accessibility (in terms of proximity and how to get people there, and also requirements for persons with disability) (1/4) and safety concerns related to potential overcrowding (1/4). Low-emissions solutions within this scenario included handheld (mini) fans and natural ventilation (while minimising the risk of smoke exposure) (2/4), identifying alternative cool locations such as shopping malls, swimming pools, shaded places with trees, riversides and churches (1/4), and using covers to shade windows and walls (1/4) or shading tents (1/4). Groups suggested using reusable containers and bottles for water distribution (1/4), providing recycling bins for bottle waste (1/4), pre-identifying space for water storage at Red Cross locations (1/4), and working with local water supplies (1/4). To limit emissions when providing mobile cooling, groups suggested using electric vehicles (2/4) and Transport for London providing air-conditioned buses (1/4). Groups also suggested green spaces such as parks and gardens as short-term cooling locations (1/4), coordination with other emergency services (e.g. fire brigade) (1/4) and providing hats, umbrellas and sunglasses (1/4). One group suggested that tree planting and shading infrastructure provision could be medium-to long-term low-emissions solutions to provide people with cooling opportunities in such scenarios (1/4).

Table 2.2. Summary of responses from tables considering the 'Heatwave + Wildfire' scenario

What are your standard 'keeping cool' options?	Alternatives *Is there a 'low emission' way to do this?*	Challenges *Challenges with this from your scenario*
Active cooling/mechanical ventilation with fans	• Uses electricity but relatively low impact • Handheld fans • Ventilation (opening windows, managing airflow) • Alternative locations: shopping malls, swimming pools, shady places with trees by river, churches • Cooling resources: cool/ice • Mini-fans • Use of damp cloths around necks / on foreheads	• Risk of contagion (infection from blowing air around or smoke hazard) • Stock of fans available and delivery to red cross • Security of centres with open doors • Do all local authorities have office fans? Does GLA have centrally? • Prevailing winds: need locations away from air pollution • Concerns related to accessibility • Above 35 degrees circulating air is no longer effective
Hydration (cold bottled water)	• Cold water at Red Cross locations (if pre-planned)? • Set-up recycling bins (water bottles) • Plans for localised water supply • Reusable containers/bottles	• Only for pre-identified locations • Water availability • Power outage • Access and supply • Transportation of bottled water is high emission • Bottles water expiry dates/waste
Partnerships with private sector	• Ability to borrow assets as opposed to buying them?	• Relies on partnership agreement
Providing shade: Canopy over windows providing shade Simple outdoor tents	• Medium- and long-term infrastructure e.g. tree planting • Short-term: rest centre location under tree cover? Park? Garden centre? • Shading tents and tarpaulins • Hats, umbrellas and glasses	• How to mount canopy on building? • For tents, mounting securely outdoors • Enough shade for all people? • Planting trees for shading is a long-term measure • Agreements from spaces to be a rest centre location • Outdoor areas that might be exposed to smoke and perceptions of safety issues (e.g. being near trees) • Overcrowding of centres
Mobile cooling: People sit in air-conditioned vehicles	• Electric vehicles/hybrids? • Battery powered buses and other mobile units • Mobile cooling is potentially more flexible/efficient than in-building air conditioning	• Funding • Activation/capacity across London: currently no cooling bus • Potential to ask Transport for London to send a bus?
GLA cool spaces map	• Communications with other emergency services (e.g. fire department) • Preventing spread of fire	• Prioritisation of people at risk • Swimming health and safety • Local health services not systematically included • Medication

Evacuating and managing vulnerable people to/in cooling centres: Risk assessment for most vulnerable to move them from informal to formal rest centre Spreading people throughout the rest centre if possible	• Cover walls/windows if possible	• Overheating during transportation • More support required for and from staff and volunteers to ensure all people are supported
Providing guidance/advice/ awareness to general public	n/a	• Volunteers' personal capacity • Dangers and concerns
Staying indoors	n/a	• Ventilation because of outdoor smoke
Light, breezy and wet clothing	n/a	• Could be affected due to wildfire • Coordinating with parents
For the smoke, using masks	n/a	n/a
Pay attention to vulnerable people (e.g. elderly, pre-existing health conditions, infants, pregnant women)	n/a	• Maintaining good morale among the diverse mix of vulnerable people (elderly, infants, pre-existing health/mobility conditions)
Communicate and keep people updated	n/a	n/a
Immersing feet in water	n/a	n/a
Avoid physical activity	n/a	n/a
Avoid drinking alcohol/ caffeine	n/a	n/a
Regular shorter breaks for staff and volunteers, especially those more vulnerable	n/a	• Limited volunteers and staff members
Mental health support - activities for children (plus ice lollies)	• Water-based play for children	• Storage for ice lollies

2.2. Session 1: Adopting low-emissions responses to heat

During the second part of the first interactive session, participants were asked to reflect on the low-emissions cooling solutions they had identified and collectively point out what preparation activities would be required to implement these solutions in the long term. They were also asked to identify those who would need to be involved in these preparatory actions (e.g. policymakers, emergency planners, first responders). Table 2.3 provides an overview of the responses from participants across the different groups.

2.2.1. 'Heatwave + Power Outage' scenario

Groups addressing the 'Heatwave + Power Outage' scenario focused on three main types of low-emissions cooling solutions: (i) those addressing the identification and provision of indoor and outdoor cooling spaces, (ii) those focusing on the implementation of cooling measures at home, and (iii) the provision of mobile cooling. For the first theme participants identified five main preparatory actions to be implemented to make sure that the measures were available on the day. These include:

- Identification and mapping of cool space(s) and related coordination efforts (3/3)
- Risk and capacity assessment of the identified locations (including operations, accessibility, safety and security) (3/3)
- Creation of new cool spaces in existing facilities (2/3)
- Identification of funding (3/3)
- Long-term measures (1/3)

Cooling measures to be implemented within the home included the use of shutters, wet blankets over windows, passive ventilation, and avoiding cooking, among others. Participants suggested that preparatory actions to enable the implementation of these measures should focus on communication and education (2/3), ensuring that regulatory barriers to implementation were removed or temporarily held (2/3) and that supplies and equipment were available (1/3). For the provision of mobile cooling, preparatory work looking at identifying funding opportunities and partnerships to source vehicles, training volunteers and targeting groups and locations ahead of time were identified (1/3).

Groups identified local authorities, the private sector, voluntary groups and charitable organisations, community associations, volunteers and first responders as parties that should be involved in the implementation of the identified preparatory actions.

Table 2.3. Participant responses on low-emissions solutions for cooling measures in a 'Heatwave + Power Outage' scenario

Low-emissions solution	What preparation is needed to make sure this option is available on the day?	Who would need to be involved?
Cooling spaces – buildings and green spaces: Cooling spaces/shaded spaces/ green spaces Trees on streets/shade sails Gazebos + tents in public spaces Open local community gardens and services A/C buildings (e.g. supermarkets) Mist generators and misting stations Stockpiling portacabins Fold-out wings	**Identification and coordination:** • Identifying and coordination and locations • Agreement from local services and training • Mapping all available/suitable spaces **Risk and capacity assessments, accessibility, and operations:** • Mapping facilities of all green spaces, toilets, gazebos, cafes, seating, accessibility for disabled + vulnerable. Consider inclusivity. Does everyone feel safe. • Identifying highest risk buildings + infrastructure+ working through priority. • Risk assessments of all areas and see which are useable • Location capacity issues • Use of private green spaces • Accessibility and operating times • Security of use green spaces, do people feel safe • Assessing capacity of these green spaces. How many people can safety congregate • How long can these spaces be used for before other options are required or considered? • Sign posting to other tool and services **Creation of new spaces in existing facilities:** • Creating new spaces through shade sails for schools and other spaces **Identification of funding:** • Funding gap? Will central government provide extra support? • Flexibility to combine with existing funded programmes like retrofit • Purchasing • Funding for local services **Long-term initiatives:** • Removing paving and adding greenery • Green roofs	Local authority with support of local business, organisation + charitable + voluntary partners
Implement cooling methods in all homes: Shutters Wet blankets on windows Passive ventilation Bedding (wet) on windows	**Communication and education:** • Communication/education -> local news? Social media? • Communication campaign to educate **Ensure regulatory compliance and remove existing regulatory barriers:** • 'Hold on Heritage' – enable these responses	Local authority, resilience forum, first responders, community associations

Not cooking Open windows Sleeping on cool surfaces	• Approval by planning authorities **Supplies:** • Stockpiling: fans, bamboo mats, blinds	
Mobile cooling **PV powered**	• Funding and partnerships for vehicles (dual source?) • Trained volunteers • Targeting locations + groups, comms ahead of time	Voluntary and community sector, NHS
Others: Alter uniform Sign, guidance, wayfinding Operating of PV/ batteries Internal and external thermometer	• Distribution • Training and education	

2.2.2. 'Heatwave + Wildfire' scenario

Participants working on the 'Heatwave + Wildfire' scenario focused on the following low-emissions cooling solutions:

- Cool space provisions (4/4)
- Cooling supplies (4/4)
- Provision of shading (3/4)
- Mobile cooling opportunities (2/4)
- Education and training (2/4)
- Long-term solutions (2/4)
- Means of transport for evacuations (1/4)
- Solar energy solutions (1/4).

Regarding cooling spaces, in addition to using existing cool spaces, participants flagged the need for low-emissions cooling centres as well as the identification of green space-based centres in locations such as gardens or parks. In terms of preparatory actions, one of the groups mentioned the need to develop a community strategy for cooling centres; another raised the importance of communicating and providing signage and wayfinding in relation to the centres, and a third group flagged the need for having emergency related stocks (for example, emergency kits including fans) in place. All groups agreed on the fact that these preparatory actions should be taken care of by local authorities. Some groups suggested that these actions should be done in collaboration with venue owners and emergency responders.

In relation to the provision of cooling supplies (such as drinking water, light clothes, and fans), participants suggested that agreements with suppliers and private sector partners should be in place to ensure availability. This was coupled with the need to conduct procurement activities and distribution arrangements ahead of the emergency. For this measure, groups suggested a collaboration between local authorities, emergency responders and British Red Cross staff specifically. Concerning the provision of shading – which included both shading for buildings as well as temporary shading such as tents – groups reiterated the need to ensure procurement ahead of time (incorporating time for testing and potential fixes), along with developing partnerships with specialised companies for installation and removal. Additionally, participants suggested the pre-identification of locations for installation, storage and distribution routes, and the development of training. For this measure, groups identified the need for collaborations between the private sector, local authorities, emergency responders, British Red Cross, NGOs and heritage officers.

For the implementation of education-related activities and training, groups identified the need for training for staff on existing cooling measures (1/4), as well as education for the public (1/4). Groups identified the need to do this ahead of the heat season, not just as a reactive measure and that delivery options include public health campaigns and community education events (1/4). These initiatives should be developed by local authorities, emergency responders, health agencies and the British Red Cross. On the provision of mobile cooling, groups suggested that electrical vehicles should be procured ahead of time and that this should be done by emergency responders in conjunction with local authorities and Transport for London (2/4). Additional low-emissions measures identified by the groups included the development of long-term solutions (2/4) such as pollution mitigation and the use of planting and nature-based solutions. Finally, one group suggested identifying opportunities to provide transport opportunities for the evacuation of the population to cooling centres (1/4). This measure requires reaching an agreement with public transport to provide support, which should be addressed ahead of time by local authorities and emergency responders.

Table 2.4. Participant responses to low-emission solutions for cooling measures in a 'Heatwave + Wildfires' scenario

Low-emissions solution	What preparation is needed to make sure this option is available on the day?	Who would need to be involved?
Cool spaces		
Low-emission cooling centres	Working with local authorities to pre-identify those sites	Local authority
Community strategy for cooling centre	To develop ahead of season	Local authority Emergency responders
Utilisation of Existing Cool Spaces	Communication Signage and wayfinding	Local authority staff
Identify more appropriate cool rest centres	Usage plans / agreements List of centres Stock in place on site Visits of forecast/ an imminent heatwave	Local authority staff
Alternative rest centre locations such as garden centre or park	Partnership agreement Encourage broader take-up of spontaneous spaces (community outreach)?	Local authorities in agreement with venue Local authorities
Cooling supplies		
Pre-positioned/pre-agreement to get supplies (water, masks, fans, etc.)	Procure ahead of time Pre-agreement with supermarkets	Local authority Emergency responders Private sector
Cooling resources: sun hat, sunscreen, mini fans	Procurement Distribution	
Provision of damp cloths for cooling	Stock of cloths (reusable)	British Red Cross staff Local authorities staff
Cooler clothing stock if not appropriate (e.g. if smoke damaged)	Agreement with corporate partner for provision of necessary items	
Shading		
Portable canopy (for buildings – shading windows) Or portable tents	Purchase of canopy – financial outlay Ability to affix to building: scoping, costing, installing (anchor point) Storage of canopy and plan for transport or store on-site Who will install and remove? Capacity and training	Local authorities and building owners Voluntary and community sector could do 'low-tech' option: storing simple tents, 'nomad tents'/marquee style

Shading options and cooling (sprinklers) – electric?	Partnerships with specialist companies	Private sector Local authority Emergency responders
External shading	Procurement (test and fixing) Training Pre-identified places to put up Logistic/ Delivery	Local authority Emergency responders BRC NGO Heritage Officers
Mobile cooling		
Mobile cooling: • PV powered • Misting stations • Foldout wings	Funding and partnerships for vehicles (dual source?) Trained volunteers Targeting locations and groups Communications ahead of time	VCS NHS
Electric powered mobile vehicles	Procurement ahead of heat season	Local Authority Emergency responders
Electric mobile cool centres		Transport for London
Education and training		
Training of staff on cooling measures	To do ahead of season	Local authority Emergency responders
Education on how to stay cool e.g. water, restricting physical activity	Public health campaign Community education events/offers Wildfire contingency plans included	Health agencies British Red Cross
Transport		
Low-emissions transport to alternative cooling centres (e.g. church, park, water body) away from fire	Agreement with public transport to provide support	Local authority Emergency responders
Long-term measures		
Pollution mitigation Planting and nature-based solutions	n/a	n/a
Solar energy solution		
Lighting at night, phone charging	n/a	n/a

2.3. Session 2: Understanding adaptation and preparation

Groups were asked to discuss the terms 'adaptation' and 'preparation' and what these terms meant in relation to the working definitions used, how the terms are used and in which circumstances, to which timescales the terms were related, and concerning what activities. Participants were also asked to reflect on the helpfulness of differentiating between the two terms or if these were used interchangeably. Table provides an overview of the responses from participants across the different groups.

Groups had different views on the two terms and associated them with different concepts. A majority of the groups (4/7) associated **adaptation** with risk, and risk mitigation, reduction or management in some way. According to some, adaptation is intertwined with prevention (2/7) and resilience (2/7) and should help reduce acute need (1/7). Participants also perceived adaptation as a long-term process (5/7) associated with "more permanent solutions" requiring "protracted periods" for implementation. Many groups linked adaptation with policy, strategies or strategic goals, and planning (5/7). One group also mentioned "governance" (1/7) while another specified that adaptation addresses wider systemic issues (1/7). Some participants linked adaptation with change (e.g. "the ability to change", "behavioural and cultural changes", "infrastructural change") (3/7), and viewed adaptation as a continuous (1/7) and dynamic process (1/7). Some participants connected adaptation with opportunities (2/7) and benefits (2/7), with one group mentioning that adaptation requires more investment (1/7) as there are more risks associated with it.

Among other topics participants mentioned adapting plans (1/7), responses (1/7), plans for businesses (1/7), and climate adaptations (1/7). Some participants mentioned that adaptation is scale-dependent and that different interpretations might apply at national and local levels (1/7). Finally, some participants felt that adaptation and preparation were occasionally used interchangeably, which generated confusion (1/7). Some considered that it was helpful to differentiate between adaptation and preparation but without getting caught up in the details and definitions (1/7).

The majority of groups linked **preparation** with 'emergency' (5/7); some thought that the term is linked with tactics and operations (1/7) and felt that preparation is discrete (2/7), bounded to a distinct phase (1/7), and connected to specific events or periods of time (6/7). While preparation was perceived as more emergency response-oriented, one group flagged that the British Red Cross is trying to move more into the climate adaptation space, so that needs are less acute during a crisis and easier to anticipate and manage (1/7). Participants believed that preparation is linked with the short term (3/7) and that it requires step-by-step (1/7), targeted (1/7) actions and planning (4/7). Some participants felt that it is easier for people to understand preparation and to identify actions that can be taken (1/7). One of the groups also mentioned that preparation was needed because of a lack of prevention/adaptation (1/7). Finally, one group associated preparation with resilience and the capacity to bounce back after an emergency (1/7).

Table 2.5. Participant views on the use and meaning of the terms 'adaptation' and 'preparation'

Adaptation	Preparation
Power Outage (PO)1: Learning from best practice to inform adaptation The ability to change: adaptable Dynamic process-led Mitigation against risk	**PO1:** The ability to cope more effectively Preparation is the planning that goes into procedures being put in place Emergency Management Model: distinct phase
PO2: Ability to adapt when an event happens Ability to adapt your plans Ability to withstand increased heat Adapt our mindset/longer-term planning Ability to have changes (blinds installed) Adaptation long-term Painting house roof white, having shutters infrastructure change Adapting our responses Being fully adapted (response)	**PO2:** Velocity – the journey is short term and long-term? Groundwork for the event Resilience (with preparation, no bounce-back) Things you need to do to adapt
PO3: Longer-term issues and how will we mitigate them (strategies) Drawing down opportunities Wider policy issues, systemic More risk, more investment needed Includes behavioural and cultural changes as well as climate adaptations	**PO3:** Tactics/operations -> more short term E.g. having meetings with local authorities and services to resolve current issues Business as usual In response to an event/a finite event Staff working schedule Discrete, time-limited
Wildfire (WF)1: Longer-term, more permanent solutions (i.e. environmentally bound) The time scale is longer as solutions will take protracted periods Interchangeable which adds to confusion Group feel this is in longer term, i.e. next 10 years Yes a permanent solutions not large-scale response Prevention – personal protection measures planning	**WF1:** Having plans to be able to ensure emergency preparedness and business continuity in short-term Emergency responders and operations tend to use 'preparation' Local Authorities, London Fire Brigade use term or think about 'preparation' This is more primarily but initial response, and/or 6-12-months As above Yes
WF2: Actions that can lower the exposure to risks: Policies – long-term strategy Governance Opportunities Wider benefits Good to differentiate	**WF2:** Preparing for the worst on an expected crisis Targeted Plan Step by step actions Emergency response Physical/infrastructure
WF3: Happens in the very long-term, more ongoing Continuous Successful adaptation reduces acute needs Used more specifically within the climate sector Linked to resilience efforts Often adaptation and preparation are used interchangeably	**WF3:** Used more frequently About getting ready for something specific Discrete Successful preparation enables better response to acute needs More emergency response oriented (British Red Cross trying to move more into adaptation space so needs are less acute during a crisis)

Should be about benefits but is often just about keeping a steady state Helpful to differentiate but not get too caught up in details and definitions	Easier for people to understand/identify actions to take
WF4: **(National)** Adaptation as part of being prepared Part of resilience and overall strategies and goas of being prepared Includes prevention, plans for businesses etc. **(Local)** Adapting as local level should be the strategy /goal overall Would reduce risk/need to prepare in the first place E.g. adapt to flood risk by not building on floodplain Perhaps we can explain these different definitions at the scope/level	**WF4:** The state of being ready for something (/illegible/disaster/event) to happen Goal/strategy -> approach to national is to be prepared What is our risk appetite? Part of planning for responding to lack of adaptation / prevention Part of emergency management response cycle Preparation as a result of a lack of prevention/adaptation, e.g. no need to prepare for flooded property

2.4. Session 3: Enhancing awareness and resilience during periods of extreme heat

Participants were asked to think about climate adaptation/preparedness and the kinds of low-emissions solutions for keeping cool in a heatwave that they had come up with and individually identify the challenges at an organisational or strategic level to implementing the solutions. For this activity, participants were asked to provide up to three individual responses through Menti. The summary below provides an overview of the responses from participants.

2.4.1. What are the challenges at an organisational or strategic level to implementing low-emissions solutions for keeping cool in a heatwave?

Responses to this question were grouped within the following themes:

- Lack of funding, high costs, or limited implementation capacity (21 mentions)
- Lack of knowledge or understanding on the issue (10)
- Organisational constraints and limited coordination (9)
- Not a priority (8)
- Lack of guidance and/or stewardship (7)
- Policy gaps and regulatory barriers (5)
- Competing or conflicting priorities (5)
- Lack of willingness and/or buy-in (4)
- Behavioural and cultural barriers (3)
- Technological gaps (3)
- Lack of credibility (2)

The lack of adequate funding, the cost and/or limited implementation capacity (21) were identified as the main challenges for the implementation of low-emissions cooling solutions during a heatwave. Some participants mentioned challenges related to staff reductions, the lack of time and resources to research and develop innovative solutions, and the costs of delivering low-emissions solutions. The second most common challenge identified was a lack of knowledge or understanding of the issue (10) among political and institutional leaders, but also across communities – which hinders compliance with measures and implementation capacity. Furthermore, organisational limitations and coordination challenges (9) were also identified as issues. These included, for example, a lack of cooperation and coordination across departments and across organisations. Short-termism and a focus on reactive measures rather than long-term planning were also cited within this theme.

Respondents also mentioned that the implementation of low-emissions solutions during heatwaves was a challenge because this was not a strategic priority at the national or institutional level (8), which was coupled with the fact that competing or conflicting priorities at the strategic level (5) and a lack of buy-in (7) might also be hindering implementation capacity. Some respondents identified the lack of guidance and leadership (7) on the issue as a challenge, and others mentioned policy gaps and regulatory barriers (5) to implementation as the main challenges. To a lesser extent, respondents mentioned issues related to influencing behavioural change (3), technology limitations (3), and mistrust of the available data and scientific evidence (2) as challenges.

2.4.2. Key components of training and delivery

Participants were asked to think about the development of training to enable better awareness and community resilience during periods of extreme heat and provide their responses to the questions asked through Menti. This training would be addressed at voluntary and community groups and would be delivered by the British Red Cross, local authorities and other resilience-building partners. The training aim would be to enable these groups to be better prepared to respond to heat without increasing emissions.

The first question asked participants to identify three key points that should be covered in the training. The second question asked participants to identify who should deliver this training and through what specific routes participants thought the training should be delivered. The purpose of this activity was to identify existing routes through which training could effectively be updated to incorporate insights on how best to adopt low-emissions cooling solutions during heatwaves, as opposed to solely exploring new routes for delivery. The summaries below provide an overview of the responses from participants.

Respondents identified the following main topics to be included in the training:

- Solutions (30)
- Heat awareness and communications and impacts of heat (29)
- Heat vulnerability and supporting vulnerable people (13)
- Community resilience and preparedness and response (7)
- Building trust and partnerships, coordination and collaboration (6)

Most responses suggested that the training should contain information about existing solutions (30) to be implemented during extreme heat to increase awareness about resources, options and solutions already available. Within this theme, participants highlighted the importance of including information on how to keep cool at home, how to implement low-tech, cost-effective individual-level measures to stay cool, guidance on how to access available resources, and information on how to reach cool centres, among others.

The second theme identified among participants referred to heat awareness and communication and the impacts of heat (29). Topics highlighted included terminology (e.g. adaptation and mitigation), awareness of risk, common misconceptions, how to overcome scepticism and communications on the science informing heat-related triggers and heat impact on the body. Under the same theme, participants also identified the impact of heat as a topic of interest; this included for example the impact on mental health, the importance of referring to heat-related lived experiences, and the overall dangers of heat for people's health.

Another topic identified was heat vulnerability and how to support vulnerable people (13), including topics such as how to identify vulnerable people within communities and what to do to support them, how different people are impacted and what are the associated risks and needs. Some participants believed that the training should cover heat community resilience and preparedness and response (7) topics, such as grassroots community measures, heat and first-aid, rapid-response kits, and self-preparedness.

Finally, participants thought that the training should cover aspects of building trust and partnerships, and coordination and collaboration (6). This theme should include building partnerships with critical local stakeholders, building trust among voluntary and community sector organisations, facilitating resource sharing and avoiding overlapping.

2.4.3. Are there specific routes you are aware of through which we could deliver this training?

- Community first responders, voluntary and community sector, social and health care providers (11)
- Existing outlets for training (British Red Cross, community resilience projects, risk management training, initial responder training) (6)
- E-learning platforms (4)
- Workplace and professional trainings (4)
- Community groups (faith-based and others) (2)
- Community resilience hubs and resilience forum (2)
- Gamification (2)
- Schools (2)
- Social media and traditional media (2)

The most cited routes identified by participants were the voluntary and community sector network, and social and healthcare providers (11). Respondents also identified community first responders, volunteers, social prescribers, general practitioners and NHS community champions as potential routes for delivering the training. The importance of delivering the training through local-level actors and organisations was cited by different respondents. These included, for example, faith-based community groups and other grassroots organisations (2). Furthermore, participants believed that existing training (6) such as the British Red Cross's 'Building resilience together' training for volunteers, and institutional risk management and first-responder training courses could be included as delivery routes. Existing initiatives such as community resilience hubs and the local resilience forums were also mentioned (2).

Some participants expressed that the training could be delivered as part of workplace-specific and professional training (4) such as emergency preparedness and response planning training, and health and safety training, but also targeting specific professionals such as the Met Office contingency advisors. E-training platforms and apps (4), gamification (2), and social and traditional media (2) were also identified as potential routes for training delivery. Finally, some participants mentioned that the training could be delivered in schools (2) and be included in the school curriculum to target young people and have a cascading effect in their homes and wider communities.
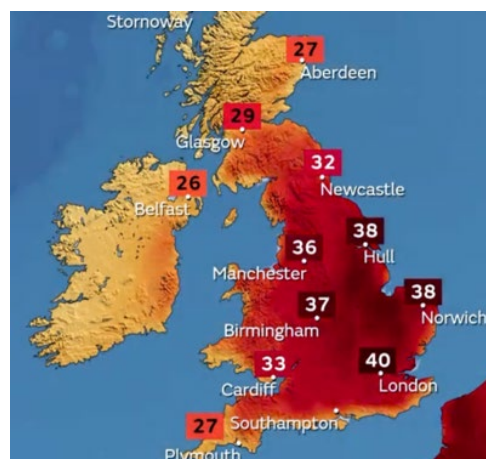
Appendix

HANDOUTS

Session 1: Handout 1 – Scenario 1

Scenario 1: Heatwave + Wildfire during daytime

- Temperatures have reached over 35°C for over three consecutive days, leading to a series of wildfires in multiple London Boroughs. Two further days of hot weather are expected before it gets cooler.
- The London Fire Brigade are responding and currently have the fire under control.
- Multiple properties remain at risk of catching fire or are within hazardous conditions (e.g. smoke).
- Multiple properties have had to be evacuated. The area includes a secondary school, private residential properties, local businesses, social housing and a residential care home.
- Two local community centres are being used as rest centres: one is council pre-identified which has gone through robust risk assessment and includes a cool room; the second is a 'spontaneous' rest centre where people have self-congregated to, in a local community centre with one wall made entirely of glass windows.
- There are a range of individuals at the rest centre with varying levels of vulnerability, including residents from social houses and care homes. The school has asked parents to collect their children but half remain.
- British Red Cross volunteers are supporting statutory responders.

Session 1: Handout 1 – Scenario 2

Scenario 2: Heatwave + Power Outage during daytime

- Temperatures have reached over 35°C for over three consecutive days, and the impact of heat on critical infrastructure has led to electrical equipment failure and a series of power outages affecting two neighbouring London Boroughs. Two further days of hot weather are expected before it gets cooler.
- The power outages are affecting two neighbouring London boroughs, but due to how electricity is supplied, it is not a blanket loss of power in all areas or even all properties in one area.
- The areas affected includes a schools, private residential properties, local businesses, social housing and residential care homes. 10,000 properties have been affected by the power outage across the two affected boroughs.
- Local transport is affected, and communications are difficult.
- Local rest centres are not being used as they too are out of power. There are no available cool centres. The British Red Cross and local authorities advise people to stay in their homes.
- British Red Cross volunteers are supporting the local authorities to support residents.
- With no power, those affected are not able to use electrical devices to keep themselves cool and have limited access to guidance on how to withstand the heat, and limited ability to contact friends/relatives.