

Urban Heat Index Seminar 9 September 2026

Q&A report

Funding

	Do the Local Authorities who joined these trial mind sharing how it has been funded? I would like to have better data for my LAs too but not sure how to make it happen
Q (Camden)	
Q (Suffolk)	Could you please let as know how these pilots were funded?
A (Richmond)	We funded this from our existing climate and sustainability budget
A (Surrey)	This was felt to offer good value for money - bigger consultancies would charge much more
A (Bedford)	We co-funded this between the environment and public health internal budgets and strategic reserves.
A (UHI)	They were funded from internal council budgets

Wildfire risk

	I know the analysis is only for the urban areas, but wondering if there is any correlation to this and the increased risk of wildfires
Q (Suffolk)	
A (UHI)	I think there is potential to make this link. The data covers both rural and urban areas. It might be possible to work with fire and rescue and disaster teams on this - they would be using something like models from Copernicus to model wildfire pathways etc. it might help to further identify peri-urban areas that might be on the edge of wildland-urban interface that would be most at risk from wildfires. But a work in progress on our side.
A (Surrey)	

Cool rivers

	Am I correct in assuming that the River Thames would show up as a cool area? Just thinking from a sport and exercise perspective.
Q(London Sport)	
A (UHI)	Yes, that is what we are seeing with the Thames

Interventions and targeting

	What sort of intervention strategies are boroughs considering once they have identified regions of greater heat risk.
Q (Emissiv)	
	Have any of the local authority pilots used UHI to understand heat impacts on vulnerable residents? I am interested in how UHI could be used to identify areas where we need to target support for vulnerable people (e.g. rough sleepers) during heatwaves
Q(Cambridge)	
Q (anonymous)	Please can you say more about mapping vulnerability data onto heat and flooding data?
	We are exploring this currently - it will include prioritisation of resources, targeting communication (e.g. heat preparedness), upskilling and empowering staff across service areas.
A (Richmond)	This data can be used to identify community assets that should be prioritised as cooling spaces, and prioritising them for decarbonisation and in addition to adaptation measures to act as resilience hubs. We are still in the process of exploring how this data can be used but we intend for it to be used as supporting evidence in the Local Plan, Local Transport Plan and Green and Blue Infrastructure Strategy to inform and influence decisions that could mitigate/reduce heat impacts among the most vulnerable groups.
A (Bedford)	
	How does the UHI work alongside other maps to tell dynamic stories, e.g. cascading effects and interreactions between multiple climate risks?
Q (Islington)	

This is potentially one of the most interesting applications. The Urban Heat Index is one spatial evidence layer rather than a complete climate-risk assessment in itself. It can be overlaid or considered alongside other datasets, for example flood risk, wildfire risk, drought, green infrastructure, tree canopy, housing, transport and critical infrastructure.

It can also be combined with vulnerability and exposure data, such as age, health inequalities, deprivation, schools, care homes or housing characteristics. That allows us to move from simply asking “where is it hottest?” towards questions such as “where does high heat coincide with vulnerable populations or critical services?”

There is further potential to explore interactions and cascading risks; for example places affected by both heat and surface-water flooding, or where drought and heat affect vegetation and potentially increase wildfire risk.

A (UHI)

Use in planning

Q (Chichester) How have the planners used the data for the local plan update? We are updating our local at the moment and if this could assist in the climate risk, heat etc I would be interested in how it has helped

Q (Westminster) Is this being used by planning and developments to request that shutters be included , windows be less large etc....according to the heat map and orientation?

This is an area where we see considerable potential, although we don't yet have a detailed case study of a council using the Urban Heat Index specifically to inform a Local Plan update.

The mapping could potentially contribute to the climate evidence base for a Local Plan by identifying existing heat hotspots and areas where future development could exacerbate or help alleviate heat risk. For example, it could help inform policies and spatial decisions around green and blue infrastructure, tree canopy, urban greening, cool routes and spaces, development density and layout, and the treatment of public realm and hard surfaces.

A (UHI) Because the mapping is at 30m resolution, it can also help move the discussion from a borough- or district-wide understanding of heat risk to identifying particular neighbourhoods and locations where heat resilience should be a planning consideration. We would be very interested in working with a planning authority currently undertaking a Local Plan update to explore this application in practice.

We are in the very early stages of exploring this and intend to include the heat maps as part of the evidence base for our local plan. We are currently looking into available options implemented by other local authorities to enforce temperature monitoring, such as via CIBSE TM59 overheating assessments in dwellings, but this forms part of a wider scoping exercise. We intend to use this information to contribute to Health Impact Assessments for local development proposals where we can highlight existing risks for overheating and request planners mitigate against this. We are evaluating a range of options to understand what is feasible and appropriate for our area before determining any policy direction.

A (Bedford)

Partnering with communities

Q (The Leap) Are you looking to partner with community organisations or others outside local authorities about the opportunities for this mapping to inform and shape community-led adaptation to existing and future heat impacts esp for most affected communities?

Our work so far has primarily been with local authorities, but we are very interested in exploring how the mapping could support community-led adaptation, particularly in communities that are disproportionately affected by heat.

One potentially valuable approach would be to combine the heat mapping with local knowledge and lived experience: using the maps as a starting point for conversations with residents about where heat is actually experienced, who is particularly affected, what coping strategies people currently use and where interventions such as shade, planting, cool spaces or changes to the public realm might have greatest benefit.

We'd be very interested in partnerships with community organisations, housing providers, health organisations and researchers to test approaches to this. It could also help address an important question about how remotely sensed heat data relates to people's actual experience of heat.

Yes. Once we have shared and worked on the mapping data across our own services we intend to explore how the maps could be published (eg as part of a climate-health dashboard on our JSNA website) for use by community organisations.

A (Bedford)

Communications

Q (Deploy) When communicating your results with colleagues or stakeholders, have you found there are several types of audience you need to make content for? If so, do the findings or workshops get presented differently depending on whether they are or are not technical or what kind of role they're in?

Yes, absolutely. One of the strengths of heat mapping is that it is inherently visual, so the basic message can be communicated quite effectively to a wide range of audiences. But the level of detail and the questions people want to ask of the data vary considerably.

For technical, GIS, climate or planning audiences, there is often interest in the methodology, datasets, resolution and how the mapping can be combined with other spatial information. For senior decision-makers, councillors or service managers, the focus is more likely to be on what the maps tell us, why it matters and what decisions they could inform. For communities, we would want to make the maps accessible and relate them much more strongly to people's experience of particular places.

We see the maps as a starting point rather than a finished communication product. Workshops and interpretation are important in helping different audiences understand what the data does & doesn't tell them.

A (UHI)

Technical queries

Q (Southampton) **What time of day does Landsat 8 and 9 overfly the UK, and are you correcting for the difference?**
I wondered whether the timing was different for the two satellites so that if you are using both in an analysis you would have to apply a correction?

Q (Southampton)

Its usually around 10 - 11AM. We don't correct for time of day, because we work out the difference in temp with the vegetation baseline at the same time

A (UHI)

Landsat 8 and 9 are offset from each other to create an overpass roughly every 8 days when combined or every 16 days individually. But they should each overpass at roughly the same time on their respective orbits

A (Leicester)

Q (UKHSA) **Is your data for a specific point in time or for a series of time, say a month or a year?**

Its over 5 years, for summer months

Q (Camden)

i know the data collected needs some work before being mapped, but i wonder if there are any scope for real-time data applications? In future?

Potentially, yes, although that would represent a development from our current approach. The Urban Heat Index currently uses satellite observations gathered over the last 3-5 years, and a cloud-gap-filling methodology to provide a high-resolution picture of spatial differences in heat. It isn't designed as a real-time heat warning system.

There could, however, be interesting opportunities to combine the underlying spatial understanding of heat with more frequently updated data, such as weather forecasts, weather-station or sensor data, to help identify which locations may be particularly affected during a specific heat event.

A (UHI)

Q (Southampton) **Is there any sample data available?**

You can see case studies on the work we've done so far here, which includes sample maps and explains how the data is provided. <https://urbanheatindex.com/news.html>

Q (UKHSA)

Would you share your methodology on how you take the free data to generate the outputs you create?

There is some information on our website: <https://urbanheatindex.com/services.html> and you can access the source Landsat data here EarthExplorer<<https://earthexplorer.usgs.gov/>>

Lived experience

Q (Bath)

Is there any research evidence about the extent to which people's experiences of heat relate to the heat maps?

There is research looking at relationships between remotely sensed land-surface temperature, local environmental conditions, heat exposure and human thermal experience, but these aren't exactly the same thing. A satellite-derived heat map tells us about spatial patterns in surface temperature; it does not directly measure the temperature an individual experiences or their physiological response to heat.

People's experience is affected by factors including air temperature, humidity, solar exposure, shade, wind, the buildings they live and work in, their activity and their individual vulnerability.

This is therefore an important area for further work - and we know that it's something that at least one of our pilots (London Borough of Hammersmith and Fulham) are looking at.

Our public health team is leading on the implementation of UKHSA's Local Authority Risk and Adaptation Toolkit: Heat Edition with Adults Services. The tool recognises how "High temperatures, hot weather and heatwaves can increase risks of illness and death, especially for vulnerable populations." <https://www.gov.uk/guidance/local-authority-risk-and-adaptation-toolkit-heat-edition>. We are then planning to compare the mapping data to the lived experiences of our social care workers and residents to inform our heat-health assessments and action plans.

A (Bedford)

Schools

Q (Surrey)

Surrey reps. I note the finding that schools are generally hotter. Why do you think that is and what do you plan to do about it?

This is a common finding in different local authority areas - and there are several plausible explanations. School sites can contain substantial areas of hard surface - playgrounds, roofs, car parks and access roads - with relatively limited shade. The materials used can absorb and retain considerably more solar energy than vegetation and shaded ground. Practical interventions could include as additional trees and shade, greener school grounds, changes to playground surfaces or cool roofs. The maps could also help prioritise which schools would benefit most from more detailed assessment or investment.

A (UHI)