

Healthy Place

Climate Change

Climate change

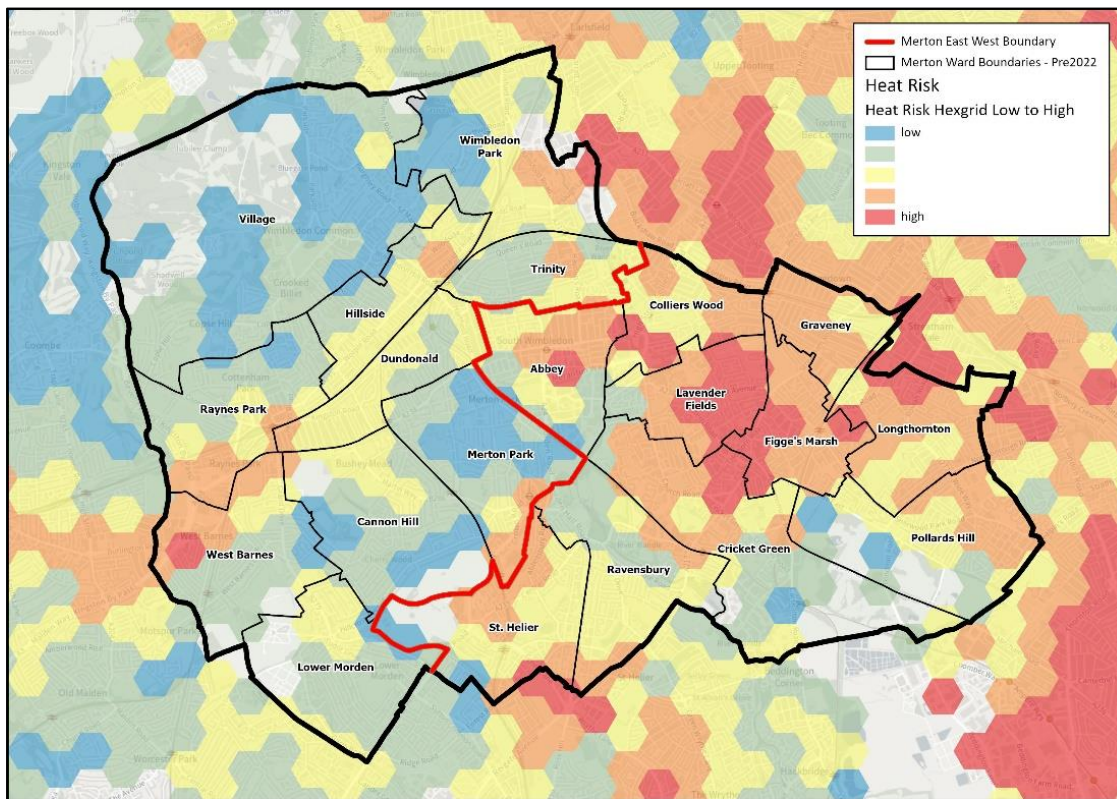
Climate change refers to the change in the Earth's atmosphere due to the release of greenhouse gases like carbon dioxide and methane into the air. This increase in temperature is leading to changes in the environment around us such as an increase in flooding and extreme heat events. Current research suggests that the climate has already warmed by around 1°C and predictions suggest that the Earth's climate could warm by a further 1°C to 4.5°C by 2100¹.

Climate change impacts on health are leading to increases in mortality. In 2022 the hottest temperatures recorded in the UK so far were recorded and the number of deaths a year from heatwaves could potentially increase from 2,000 a year now to 7,000 a year by 2050². Flooding, which is also more likely with climate change, can cause both immediate threat to life and longer-term mental health issues. Research has found that nearly a third of people suffer post-traumatic stress disorder following a flood³. Climate change will also affect the global food supply due to changes in growing conditions, and climate change can also contribute to the risk of viruses spreading from animals to humans⁴. The Merton Climate Change targets can be found here: [Climate change : Climate Strategy and Action Plan | Merton Council](#)

Merton's vulnerability to climate change

Merton residents are already susceptible to negative health impacts from climate change. The Met Office data over the past 30 years has recorded an increase of hottest days from 36.5 degrees to 38.3 degrees and are projected to reach 43.1 degrees in years ahead⁵. These impacts will be felt unequally. East Merton is overall more at risk from hot weather than West Merton (see Figure 1 below)⁶. We also know that older people will be especially at risk of heat⁷.

Figure 1: Heat vulnerability map in Merton, 2022, adapted from GLA/Bloomberg Associates⁶.



The main health risk factor linked to climate change (through fossil fuel combustion) is air pollution. Other direct health impacts of climate change are due to heat and cold/damp housing, affecting the most vulnerable such as the very young, old and those with underlying health conditions⁸.

Further Information:

- Transport and air pollution Merton Story 2022 sub-chapter
- Merton Annual Public Health Report 2022/23

References:

- ¹ IPCC, 2021: Summary for Policymakers. In: Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [Masson-Delmotte, V., P. Zhai, A. Pirani, S.L. Connors, C. Péan, S. Berger, N. Caud, Y. Chen, L. Goldfarb, M.I. Gomis, M. Huang, K. Leitzell, E. Lonnoy, J.B.R. Matthews, T.K. Maycock, T. Waterfield, O. Yelekçi, R. Yu, and B. Zhou (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, pp. 3–32, doi:10.1017/9781009157896.001
- ² Press release - Heatwaves perception gap putting lives at risk [Internet]. British Red Cross. 2021 [cited 30 September 2022]. Available from: <https://www.redcross.org.uk/about-us/news-and-media/media-centre/press-releases/heatwaves-perception-gap-putting-uk-lives-at-risk>
- ³ Cruz J, White P, Bell A, Coventry P. Effect of Extreme Weather Events on Mental Health: A Narrative Synthesis and Meta-Analysis for the UK. International Journal of Environmental Research and Public Health. 2020;17(22):8581. Available at: <https://doi.org/10.3390/ijerph17228581>
- ⁴ Carlson C, Albery G, Merow C, Trisos C, Zipfel C, Eskew E et al. Climate change increases cross-species viral transmission risk. Nature. 2022;607(7919):555-562. Available at: <https://doi.org/10.1038/s41586-022-04788-w>
- ⁵ Dale B, Stylianou N. What will climate change look like in your area? [Internet]. BBC News. 2022 [cited 30 September 2022]. Available from: <https://www.bbc.co.uk/news/resources/idt-d6338d9f-8789-4bc2-b6d7-3691c0e7d138>
- ⁶ Greater London Authority. Climate Risk Mapping [Internet]. London Datatore. 2020 [cited 30 September 2022, last updated July 2022]. Available from: <https://data.london.gov.uk/dataset/climate-risk-mapping>
- ⁷ Public Health England. Heatwave mortality monitoring report: 2020 [Internet]. GOV.UK; 2020 [cited 30 September 2022]. Available from: <https://www.gov.uk/government/publications/phe-heatwave-mortality-monitoring/heatwave-mortality-monitoring-report-2020>
- ⁸ Merton Annual Public Health Report 2022/23.