

Research suggests canals can help the UK to cope with the climate emergency

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Research published by The University of Manchester and the Canal & River Trust has shown that the presence of canal water can cool urban

areas by up to 1.6°C during heatwaves in a 100-meter-wide corridor along the waterway.

As global attention focuses on climate change at the UK's COP26 conference in November, the Canal & River Trust is highlighting how the nation's 200-year-old canals offer huge 'blue' opportunities to help Britain tackle the climate change crisis. These include heat transfer technology, which enables [canal](#) water to heat and cool more than a quarter of a million UK homes and businesses, flood mitigation by providing extra urban drainage, and more electricity generated through hydro generators.

The widespread network of canals is also able to move water from areas of plenty to areas of drought, provides off-road towpaths perfectly placed for sustainable transport, and connects otherwise fragmented wildlife habitat to address biodiversity loss. And moving freight on larger commercial waterways remains a green alternative, removing hundreds of articulated lorry journeys from the roads.

The University of Manchester research creates a new model which shows the extent to which urban waterways cool cities, where the '[urban heat island](#)' effect plus a warming climate threatens to make summers intolerable.

The research conducted across Birmingham, London and Manchester shows reductions in [summer temperatures](#) of up to 1.6°C, without undesirable cooling in winter, and demonstrates the importance of choosing the right type, height, scale and location of waterside buildings to maximize the benefits.

Richard Parry, chief executive at Canal & River Trust, said that "our network of canals and river navigations flowing through the hearts of Britain's towns and cities are perfectly placed to tackle the challenges

wrought by climate change, offering opportunities to provide 'net zero' solutions and [climate change mitigation](#).

Richard continued that "this research proves the important role waterways play in reducing temperatures where and when it's needed most. This valuable knowledge should be used to inform urban planning and design and, combined with a full package of waterway benefits, can make a significant 'blue' contribution towards mitigating the damaging effects of climate change. We ask central government, local authorities, planners and developers to work with us to help make a real difference."

Dr Joanne Tippett, from University of Manchester, said that "the canals in our cities were a product of the Industrial Revolution, a time of great innovation. Adapting to [climate change](#) will require new thinking and ways of working, and this research shows the importance of working across disciplines and in partnership."

More information: Report: [documents.manchester.ac.uk/dis ... lay.aspx?DocID=57300](https://documents.manchester.ac.uk/display.aspx?DocID=57300)

Provided by University of Manchester

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