

## LIVING SPACE

## Green roofs and urban growing space improves wellbeing

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Evolving styles of architecture and urban planning mean that many buildings are adding green spaces that seamlessly integrate with the environment around them. [An increasing number of them now have living walls or green roofs](#) – for example the city of Linz in Austria requires green roofs on all new residential and commercial buildings with rooftops larger than 100 or 500 square meters, respectively. Toronto also passed by-laws mandating rooftop vegetation; with San Francisco becoming the first US city to follow suit.

Green roofs have a number of benefits, such as reducing run off and so mitigating the effects of flooding, they typically save between 15% and 45% of energy usage, and they can minimise urban heating when several buildings have them in proximity. [A recent report on living walls and roofs in London](#) between 2008 and 2018 has shown a range of other benefits:

-  increased biodiversity
-  improved air quality
-  enhanced health and wellbeing
-  noise reduction
-  potential for carbon sequestration

Creating green space in city centres has become a key aspect of city development. In European cities urban orchards are becoming popular. One example is in the German city of Andernach, [known as the Edible City for growing its own vegetables](#). It's one of the oldest cities in Germany and over the last few years it has converted its public spaces into authentic urban orchards which are tended by its inhabitants. Another example is Madrid, a city which already has more than 30 urban orchards.

There are wider benefits for the population of 'green' cities - they are healthier as well. [A study from the University of Exeter Medical School's European Centre for Environment and Human Health](#), says: "We've found that living in an urban area with relatively high levels of green space can have a significantly positive impact on wellbeing."

## WATER, WATER EVERYWHERE

## Water shortages coming the in UK over the next 25 years

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With changing climate and warming overall, [the pressure on fresh water across the globe continues to grow](#). Almost 2 billion people rely on glacial meltwater to feed their water supplies - yet almost all major mountain ranges are seeing rapid decrease in glacier coverage. Upward demand from increased population, intensive agriculture and industrial uses have seen groundwater tables dramatically lowered and aquifers drained.

IBM estimate that more than [half of the world's population will be living in water-stressed areas](#) within 10 years. A range of new technologies are being tested and brought into production to allow desalination in more remote areas, at lower cost and using only solar energy. From a [graphene sieve](#) to [metal organic frameworks](#), they could transform the availability of fresh water across the globe.

Parts of the UK are now regularly under water stress and new ways to store and distribute water and reduce demand are being planned. By 2030, [27 of the water zones are forecast to be in supply / demand deficits](#). In particular, London and the North West are thought to be vulnerable to supply shortages. By the 2050s, climate change will further impact fresh water supplies and there could be a 10% reduction in water available for public use. The Environment Agency warned in 2019 that [there will be shortages in England within 25 years](#). Yet few people are aware of the situation, [according to a 2020 survey](#). It found that 10% of those questioned thought it was a key environmental issue.

In a thirsty world, technologies that can extract and recycle water should become increasingly valuable, and advanced water management also will become more important. The returns on water-conservation efforts become more attractive when companies consider the full economic burden of waste.

## FURTHER READING

## 'Great British Rain Paradox': Public unaware of UK's water scarcity

19 June 2020, source [edie newsroom](#)

The risks of climate change and population growth on water scarcity in the UK remain hidden, with a new survey of 2,000 Brits revealing that water consumption is low down on the priority agenda for environmental concerns.



According to the survey, 10% of the public consider water consumption a key environmental consideration