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SYDNEY TOWARDS 2030

What Sydney is really throwing in the rubbish

Waste, water security and climate change are the big environmental challenges facing Sydney as we gain an extra 1.3 million people over the next decade.

By Ben Weir

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Eastern Creek landfill is one of two sites that takes Sydney's organic waste. MARK MERTON/SYDNEY IMAGES

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As Sydney's population edges towards 5.8 million by 2030, we are producing waste at a rate six times our population growth. NSW is the second-highest per-capita producer of waste in the world, a government inquiry has found.

How Sydney deals with its waste - along with water security and further impacts of climate change - will be among the most critical environmental issues it tackles in the coming decade.

The city has three major landfill sites, Colin Sweet, chief executive of the Australian Landfill Owners Association, says.

Two can take putrescible (organic) waste: a facility operated by Suez at Lucas Heights and one by Veolia at Woodlawn, near Canberra. The third landfill is a non-organic waste plant at Eastern Creek.

"Sydney used to be serviced by a number of putrescible waste landfill sites, we are currently down to two," Mr Sweet says. "I would suspect the scenario will further deteriorate from what it is now." The waste build-up is fuelled not only by population growth but the city's construction boom and China's waste import ban.

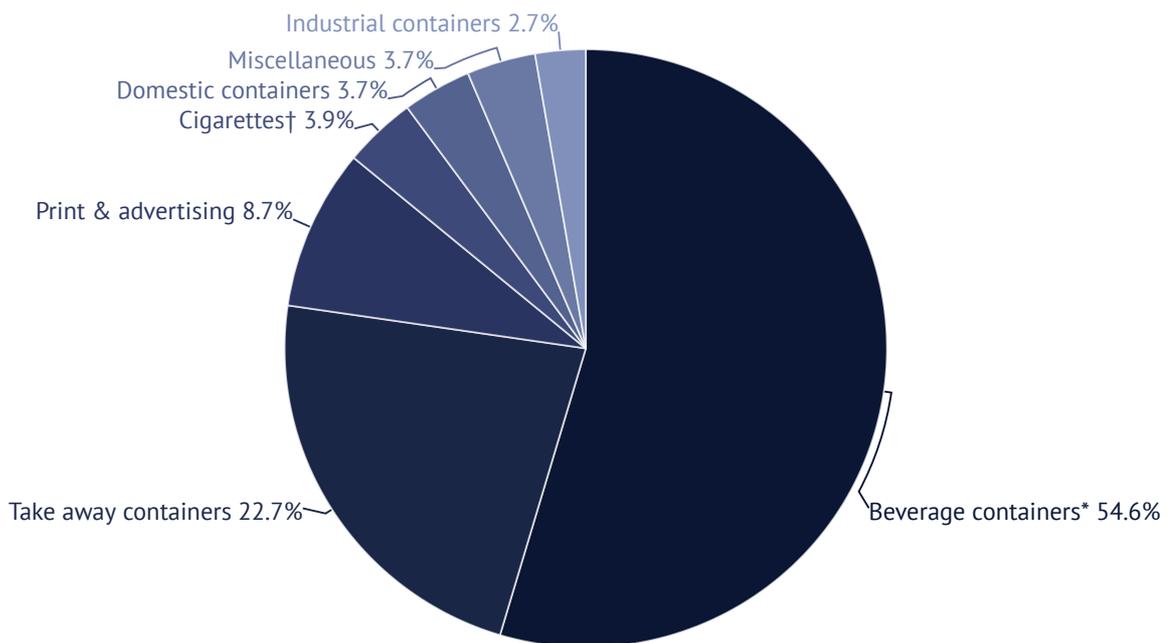
Although Sydney has several recycling centres, including Kimbriki Resource Recovery Centre on the Northern Beaches, the waste situation is unlikely to get any better by 2030. It takes about 10 years to go from conception to a landfill receiving its first tonne of waste due to the regulatory processes and finding suitable land. "We are a bit like coal mines in that we are a bit of a hot button in society these days," Mr Sweet says.

The latest figures from the Environment Protection Authority in 2015 estimates Sydney's spare landfill capacity at 2.1 million tonnes per year.

The authority says the total waste generated across the state has fallen since its peak in 2010-11 at more than 17 million tonnes, with the overall recycling rate at about 63 per cent.

What is our waste?

Volume of NSW litter generated by category in 2017-18



*Including return and earn containers. †Including packaging. Source: NSW EPA

'Government needs to get really serious'

Total Environment Centre executive director Jeff Angel predicts it will be "extremely hard" to get a new landfill built in Sydney over the next decade.

He says the [rejection of Australia's recycling waste](#) by several Asian countries was the shock we needed to start discussing the problem.

"We are landfilling too much and the government needs to get really serious about avoidance and we need much more diversion of recyclables," Mr Angel says.

To overcome the problem, a large increase in the re-processing of plastic and making new products will have to occur. "The key is government and businesses preferring products with a high recycling content," he says.

Sydney University Professor Ali Abbas, a chemical engineer who specialises in waste, says Australia is producing waste at six times our population growth, a rate that is unsustainable.

He does not believe the right approach is to create more landfills in Sydney but to instead deal with waste in a smarter way. He argues Prime Minister [Scott Morrison's recent decision](#) to move towards banning all domestic waste exports will be a good thing.

"We will be putting more effort into local waste solutions and technology. I imagine we are going to build new facilities such as waste-to-energy facilities," he says. However, waste to energy is not without controversies, with a [recent development proposal](#) in western Sydney stopped due to possible health risks and air quality.

Will we have enough water?

How we use water will be a critical environmental issue by 2030 as our city adds another 1.3 million residents.

In 2016-2017 Sydneysiders' total water use increased to 588 billion litres for the year. Analysis by Infrastructure Australia predicts water consumption across Australia's six largest cities will increase by 39 per cent by 2026.

But futurist Chris Riddell believes there will be one critical way Sydneysiders will be able to save water in the coming years - water recycling at home.

He believes new technology will allow people to recycle water in their own homes instead of letting it drain away. "We are at the very start of that now so we should expect something in the next three to five years in the consumer space," he says.

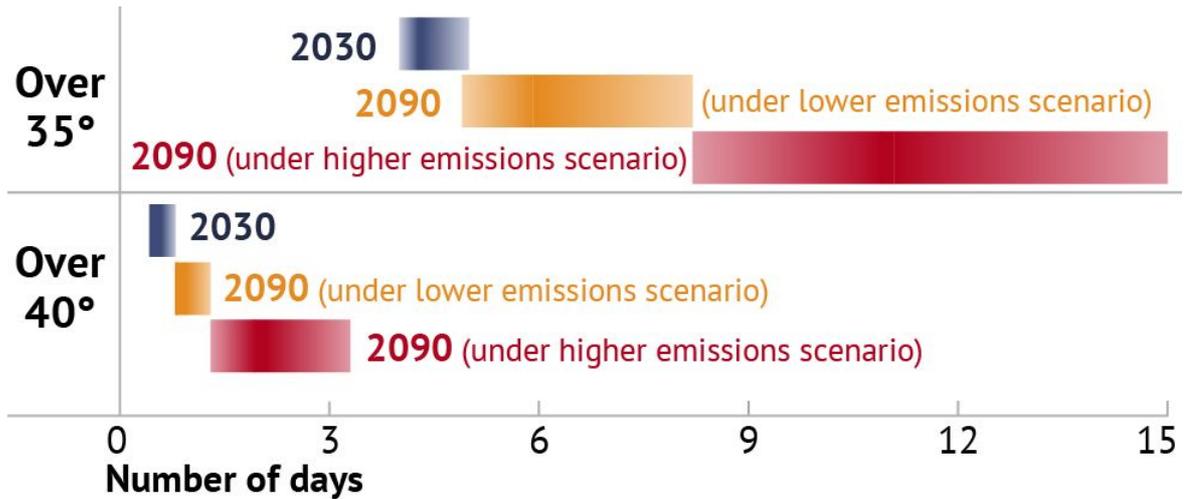
How climate change will continue to hit Sydney

Helping drive Sydney's water shortage will be rising temperatures and there is no doubt a changing climate is already impacting the city, John Clarke from CSIRO's Climate Science Centre says.

"We have already seen record-breaking heatwaves happening and there is absolutely a climate change signal in that," he says.

Critically, Sydney will have more days of prolonged heat over 35 degrees. "In the late 20th century, there was an average of 4.9 days a year above 35 degrees in Sydney. By 2030 under a high emissions scenario we are looking at that to go to somewhere between seven and nine days," he says.

Sydney temperature under different emission scenarios



Source: www.climatechangeinaustralia.gov.au

While the increases might not sound like much, Mr Clarke believes the cumulative impact will be significant.

"They can be quite debilitating to people if you have a 38-degree day then a 24-degree night and another 38-degree day," he says.

Sea levels are also predicted to rise at a faster rate in the 21st century than over the past four decades.

"If we stopped emitting greenhouse levels today, sea levels would still continue to rise for another two or three centuries," he says.

Big data to the rescue?

As our environment changes we will have to use energy in smarter and more efficient ways.

Households will be able to better regulate their energy usage over the next decade because appliances will give out huge amounts of data.

"This isn't a pie-in-the-sky dream, we are already seeing the impacts of this," Mr Riddell says.

From air-conditioners that know when someone leaves the room to dishwashers that display how much water they use, these sophisticated devices will help consumers carefully manage their household energy usage.

"From an environmental perspective it is enormous change. It means we won't consume as much energy, and when we do, it will be a lot more efficiently," he says.

The smart home device sector in the last 12 months has become much more accessible with major retailers stocking more products and the cost of these items is likely to be a lot less by 2030.

The Sydney Morning Herald is hosting a population summit on September 23. For more details and to view the list of speakers click [here](#).



Ben Weir



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