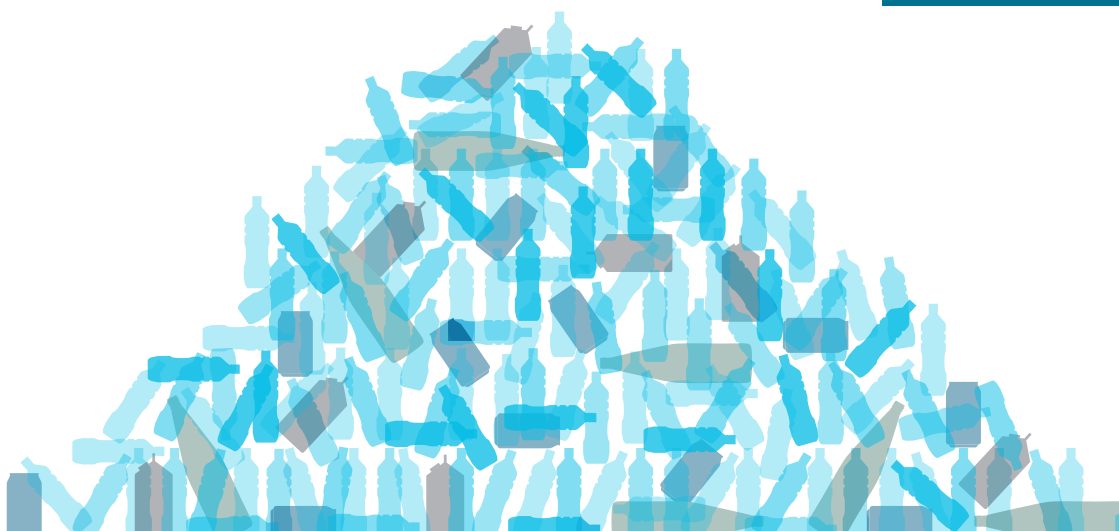
Losing the bottle

Why we don't need single use containers for water

green alliance...



It's important to stay hydrated, especially in the summer months. In the UK, despite recent campaigns, we're still meeting this need by buying bottled water, rather than reaching for a tap or water fountain.

Consumption of bottled water has doubled in the past 15 years, and is still rising.

Single use plastic containers dominate the market. But, following rising public concern about plastic and marine pollution, this is changing, and it is now possible to buy water in aluminium cans, glass bottles or cartons.

This could reduce the amount of plastic used, but all the alternatives also have environmental impacts. In turning away from plastic, we should be careful not to create new problems for our environment by using other materials in huge quantities. The good news is that switching to other single use container types usually isn't necessary at all. Everyone in the UK has access to high quality tap water.

Not only is this the cheapest option, it's also getting easier to access on the go. Although more are needed, water fountains are now found in many public places. And, until they are everywhere, apps like Refill help people to locate more than 20,000 places where they can top up their reusable bottles, no matter where they are in the UK.

Sales of bottled water have increased by nearly a third since 2015

The average adult in the UK consumes 150 single use water bottles every year

Over half of all single use plastic bottles used in the UK are for water

To solve the plastic problem, companies are switching to other single use containers for water, but this could cause new environmental problems.

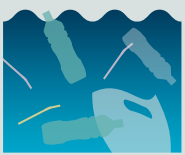
All materials have impacts at every stage of their lifecycle. Refilling reusable bottles is the only low impact option.

Environmental impacts
- high
- medium
- low

The impacts of single use vs refillable containers

Plastic

- Production waste
- Carbon emissions
- End of life



700,000 plastic bottles are littered every day in the UK.

Single use water bottles make up half of the plastic litter in the Thames.

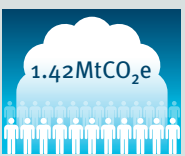
Aluminium

- Production waste
- Carbon emissions
- End of life

If half of the UK's plastic water bottles switched to cans, mining the aluminium could generate 162,010 tonnes of toxic waste, enough to fill up the Royal Albert Hall over six times.

Glass

- Production waste
- Carbon emissions
- End of life



If half the UK's plastic water bottles switched to glass, that could generate 1.42$MtCO_2e$. This is equal to the average emissions of 94,538 people in the UK, roughly the number who live in the city of Bath.

Cartons

- Production waste
- Carbon emissions
- End of life

If half of the UK's plastic water bottles switched to cartons, it would create 98,141 tonnes of low quality waste every year because cartons can't be turned back into new cartons. That's enough to fill almost 9,000 bin lorries.

Refillables

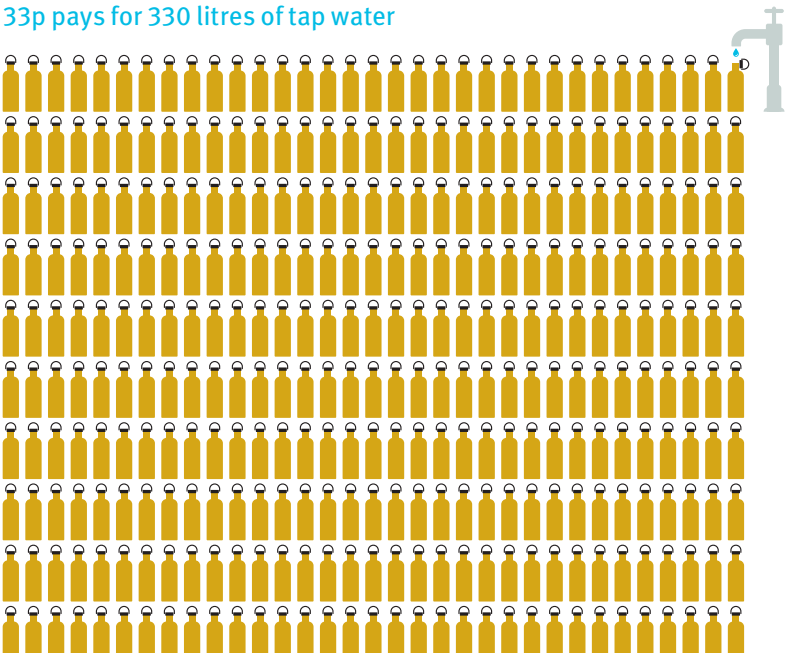
- Production waste
- Carbon emissions
- End of life

Tap water causes 180 times fewer emissions than a standard single use plastic bottle of water.

A typical container designed for refill only has to be topped up 15 times to have a lower carbon impact than a single use plastic one.

And tap water is much, much cheaper

33p pays for 330 litres of tap water



...or half a litre of bottled water

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Authors
Libby Peake, Jonathan Ritson and Melissa Petersen

This infographic was produced by Green Alliance as part of our work programme for the Circular Economy Task Force. It is a forum for innovation that aims to lead policy discussions with ambitious business thinking.

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Green Alliance
Green Alliance is an independent think tank and charity focused on ambitious leadership for the environment. Since 1979, we have been working with the most influential leaders in business, NGOs and politics to accelerate political action and create transformative policy for a green and prosperous UK.

Green Alliance
11 Belgrave Road,
London, SW1V 1RB
020 7233 7433
ga@green-alliance.org.uk
www.green-alliance.org.uk

blog: greenallianceblog.org.uk
twitter: @GreenAllianceUK

The Green Alliance Trust
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Sources

Page 2
Environmental Audit Committee (EAC), December 2017, *Plastic bottles: turning back the plastic tide*

Page 3
Green Alliance comparison of figures compiled in: Zenith, 2016, *UK water drinks report* and Zenith, 2019, *UK water drinks report*

EAC, op cit

Page 4
A full methodology explaining the environmental impacts of the different materials is available at: www.green-alliance.org.uk/losing_the_bottle_methodology

EAC, op cit

London Assembly Environment Committee, April 2017, *Bottled water*

Page 5
London Assembly Environment Committee, April 2017, *Bottled water*, 'Appendix 1'