SUSTAINABILITY

WHY NATURAL SOURCE WATERS?

Natural source waters are not available from the tap. Each natural source water comes from a unique source with its own unique character and composition. The rock strata within the aquifer (body of rock that holds groundwater) determines the mineral composition of the water that passes through it, which explains why there are many different naturally sourced waters, each having its own unique characteristics and taste. All natural source waters must be safe to drink at source, they cannot be chemically treated and are bottled at source.

Tap water can come from a wide range of different sources including rivers, lakes and reservoirs. It is industrially processed and undergoes chemical treatment to ensure its safety. It must contain chlorine, so it can travel safely from the water treatment works to the tap, and therefore requires its own set of regulations.

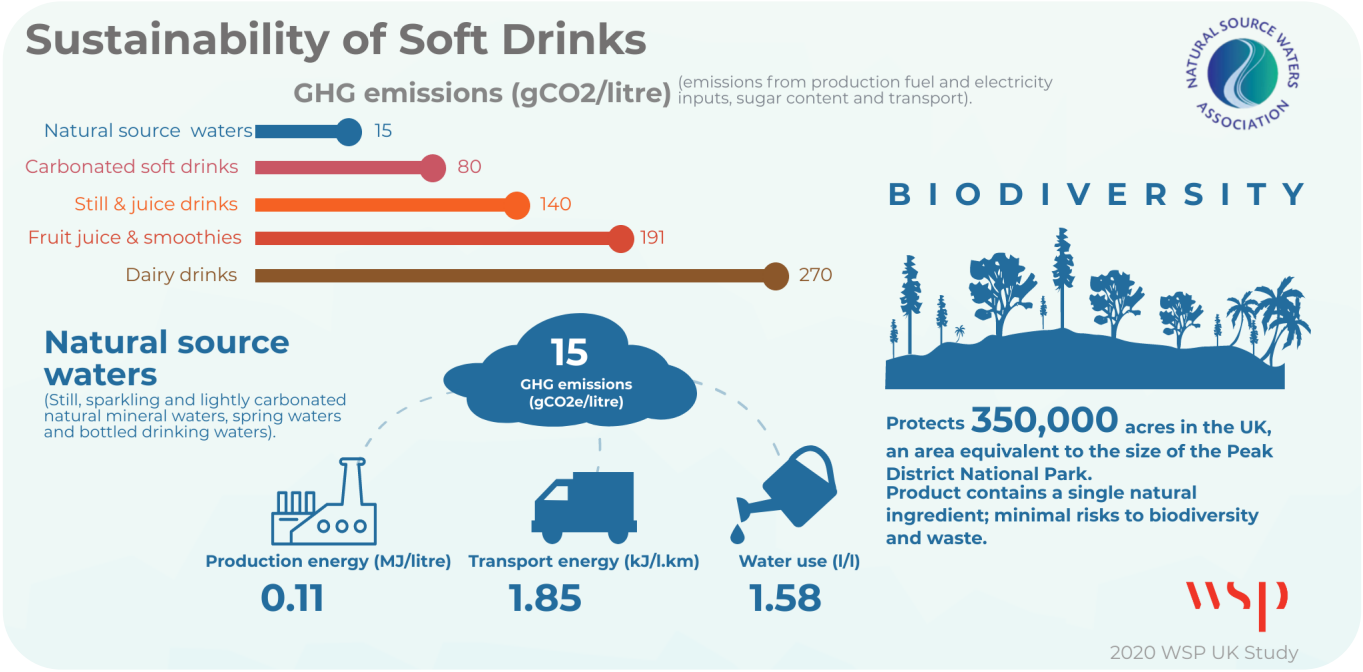
People choose natural source waters for a number of reasons: they like that they're natural, they prefer the taste or value that they are not chemically treated. When we conducted research with 2,000 consumers in October 2019 we found out what consumers would do if bottled water wasn't available:

- **57% said they would buy another drink (38%) or find another shop (19%)**
- **Only 22% would find a fountain or ask for tap water**
- **15% would go without a drink all together**

LOWEST ENVIRONMENTAL IMPACT OF ANY DRINK ON THE SHELF

In their update to Defra's 2012 Soft Drinks Sustainability Roadmap, WSP looked at the relative environmental impact of different soft drinks (carbonated soft drinks; still and juice drinks; fruit juices and smoothies; dairy drinks; and natural source waters) and what producers can do to reduce them. Confirming the findings of the earlier report, natural source waters were found to have the lowest greenhouse gas emissions and water usage of any drink on the shelf.

Natural source waters are a great choice as, not only are they the healthy option of drink on the shelf but, they have the lowest environmental impact.



LOWEST ENVIRONMENTAL IMPACT PACKAGING

Natural source waters producers, like all soft drinks companies, have carried out a great deal of research to determine what is the best packaging to use and they continue to look into this. PET has emerged as the material of choice for plastic drinks bottles as, not only is it 100% recyclable, but it is completely safe for consumers, lightweight for transportation and very durable. PET is 100% recyclable and increasing numbers of PET plastic bottles are made using recycled PET content.

The **Cambridge Institute for Sustainability Leadership** (CISL) published its *'Examining the relative impact of materials in the natural source water and soft drinks value chain'* report in April 2020. The key findings were:

- No single material comes out clearly as having the lowest relative impact across the board. Although PET plastic bottles scored lowest or joint lowest for CO_2 emissions and water usage

- Developing circular systems, to increase levels of recycling and the use of recycled content, can reduce the impact of all materials
- Companies should carefully consider all the impacts of a potential packaging material: while it is tempting for business to react quickly and go with a material that appears to be more sustainable in certain aspects, if they rush to switch or choose materials without full knowledge of the impacts, this may cause unintended consequences

CISL compared key aspects of different packaging materials:

	Water intensity (ml/unit)	Carbon intensity (virgin material) (g/CO2e/unit)	Carbon intensity (closed loop) (g/CO2e/unit)
PET water bottle (10g)	479	40	30
Aluminium can (18.6g)	617	240	60
Glass bottle (360g)	4,300	320	19
Multi-material carton (24g)	520	152	52

WRAP carried out an independent life cycle analysis (LCA) and compared a 330ml size of PET drinks bottle, drinks carton, aluminium drinks can and glass drinks bottle. The results of the analysis showed that the PET bottle was less environmentally impactful in all categories (Human Health impacts, Land use, Resource consumption, Energy demand, Carbon footprint (Measured as CCI - Climate Change Impact) and Water footprint). Some key findings were:

- The LCA also showed that the aluminium can would need to have approximately 70% recycled content to match the carbon footprint of a virgin PET plastic bottle.
- A PET bottle with 100% recycled PET plastic is approximately two thirds the carbon footprint of one made from 100% virgin PET.
- A PET plastic bottle and aluminium can would need to have 90% recycled content in to give them the same carbon footprint.

While neither of these studies take into account transportation, PET drinks bottles, whether virgin or recycled content, can be transported to the filling site as preforms, much smaller than the finished bottle, allowing more to fit on a single lorry. Once on site they can then be blown to full size and filled. They are lightweight, so use less energy to transport empty or filled.

References

- The research on the environmental impact for soft drinks was conducted by WSP Global (https://www.wsp.com/) with the research available here https://naturalsourcewaters.org.uk/wp-content/uploads/sites/231/2020/09/NSWA_2020-Sustainability-Roadmap_F.02.pdf
- https://www.cisl.cam.ac.uk/resources/circular-economy/towards-sustainable-packaging-relative-impact-of-materials
- WRAP, 2020 independent life cycle analysis

FURTHER INFORMATION

www.naturalsourcewaters.org.uk