



# waterResources



## Water Use Ratio

The **Australian Bottled Water Institute (ABWI)** is a dedicated division of the Australian Beverages Council. ABWI is the bottled water industry's preeminent representative voice, as well as the peak industry association and certification body for bottled water standards covering both bottlers and suppliers in Australia, New Zealand and the South Pacific.

The Australian bottled water industry takes seriously environmental responsibility and sustainability of natural resources. As such, in 2014 ABWI conducted its first **water use benchmarking study** to evaluate water use efficiencies and trends for Australian bottlers. The efficient use of water is a critical focus area in the bottled water industry as efficient water use in operations positively impacts the viability of water resources and business sustainability. Conducting a benchmarking study is a first step towards understanding the impacts of water use in the bottled water industry, and creates a baseline for future evaluations of the industry's broader water footprint.

As part of the study, ABWI members were asked to provide annual and facility-specific information, including facility type, total water use, total production, and supplementary process information (e.g., type of water treatment, use of refillable bottles). The key performance metric for this study is the **water use ratio**, which presents the average amount of water used within the facility to produce one litre of bottled water (including the water in the bottle), and is measured as a facility specific or company-wide basis represented as: Total Water Usage/ Total Beverage Production.

The study captured production of approximately 300 million litres of water representing almost 60% of the industry's total volume with a water use ratio ranging from 1.05 L/L to 1.15 L/L. Averaged out, the 2014 water use ratio for Australian bottled water facilities was **1.1 L/L**, demonstrating a higher level of performance when compared to the global 2011 average for bottled water facilities (1.47 L/L).

As a commercial beverage bottled water has the lowest water use ratio of any beverage at just 1.1 L/L. This compares to other popular beverages and their water use ratios:

- Milk (250mL) = 255 litres
- Tea (250mL) = 27 litres
- Wine (250ml) = 109 litres

The Australian bottled water industry has made significant efforts to reduce water use through process improvements, including but not limited to:

- Improved flow management to reduce product waste during changeovers
- In-plant bottle moulding
- Dry conveyance systems
- Efficient water treatment design and selection
- Optimization of cleaning/sanitizing units through automated timers, selection of cleaning chemicals, flow control, air rinsing, etc.
- Recognition of production schedule efficiencies, and
- Reuse/reclamation of water for non-product contact or grey-water applications, such as on-site landscaping.

Members clearly recognize and typify ABWI's mission to promote an environmentally responsible and sustainable industry, as evidenced by the impressive result from this first study, which can serve as a baseline to measure future progress in water use reduction across the industry.

If you would like more information on the study please contact the Technical and Regulatory Manager at the Australian Beverages Council on [info@australianbeverages.org](mailto:info@australianbeverages.org) or + 61 2 9698 1122.