

ABBOTSFORD BREWERY WATER USAGE FACTS JAN 07



The Abbotsford Brewery is a key production site for Foster's Group beer brands. Just over half of its production is sold interstate or overseas.

The brewery produces around 430 million litres of beer each year and is a leader in the use of water.

Melbourne water has always been very important to Abbotsford Brewery. It's been the main ingredient for brewing on the site for over a century. It's also the standard for brewing Foster's beer brands around the country and internationally.

Brewing performance is measured by the amount of water required to brew a litre of beer. Abbotsford is well ahead of world's best practice for brewing, which is between four and five litres of water to brew a litre of beer. Abbotsford uses about 3.5 litres of water for each litre of beer and the team is continually working on ways to improve that further. Through recent initiatives the brewery has already saved 510 million litres over the past three years.

For more than a decade Abbotsford has been working closely with water supplier City West Water and its own employees to audit water usage and implement reduction plans. During that time the Abbotsford team has halved the brewery's water use. City West has made three awards to Abbotsford for its water saving work. Water use at Abbotsford is continually audited with the goal of identifying new ways to save water.

Foster's has invested \$100 million in the Abbotsford site over the last 10 years. \$60 million of this total has been invested in projects that assist in the minimisation of water use.

There are more than 12 water saving programs and initiatives currently underway in a work environment which encourages the continual identification of new ways to conserve and re-use water. The brewery operates on the principle that any water use to make products or that touches products must be drinking water, but that recycled water could be used for any other needs. Wherever possible, water should be used more than once.

Through the audit process the Abbotsford Brewery team has been able to investigate each area of water usage and optimise processes to reduce that usage.

For example:

- > While regular cleaning of vessels and pipelines is vital to maintain strict hygiene levels, optimising the cleaning systems reduced water usage by up to 70%.
- > Similarly, many pumps used mains water for cooling. Installation of water recirculation systems on these pumps has dramatically reduced water use.
- > The boilers and all cooling towers on site now use water collected from other parts of the plant. This has eliminated the use of mains water altogether, saving over 170 millions litres of water each year.

As technology improves some of the water saving activities that were not feasible, become feasible. These opportunities will be identified through future audits.



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KEY WATER SAVING INITIATIVES

- > Optimised water usage in the automated cleaning systems
- > Collection of bottle/can rinser water for reuse on site
- > Installing water recirculation system on filler vacuum pumps, instead of mains water (Completion: Feb'07)
- > Using recycled water for external keg washing
- > Using recycled water for dicalite filter powder dewatering vacuum pump seals
- > Using recycled water for washdown hoses (Under review)
- > Installing high pressure cleaning gernis to replace washdown hoses (underway)
- > Collecting backflush water from water filtration plant for reuse on site
- > Using recirculating water for pump cooling and sealing, instead of mains water (Under review)
- > Consolidated dosing systems on cooling towers to reduce water lost through blowdown (Under review)
- > Collecting water from centrifugal yeast separators, for reuse on site
- > Collection of water used to test fire systems (Under review)
- > Replacement and consolidation of refrigeration systems
- > Installation of three new pasteurisers to reduce water and steam use

SOME BACKGROUND WATER STATISTICS

- > According to the Australian Bureau of Statistics (2004-2005), the Victorian 'Manufacturing' industry accounts for 2.3% of water consumption in Victoria.
- > Agriculture: 66%, Households: 8%, Water Industry (incl Distribution losses): 16%
- > The Victorian 'Food, Beverage & Tobacco' industry accounts for less than 1% (~0.7%) of water consumption in Victoria.

FOR FURTHER INFORMATION

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