

## Saving Water: Make it Your Business

### Hotel Water Efficiency

The main areas of water use in the hotel industry are diverse and include amenities, kitchens, food service, laundries, cooling towers, gardens and swimming pools. It is recommended that these areas are sub metered so that the main individual uses can be monitored. Our [Sub metering and Data Logging](#) fact sheet provides useful tips on sub metering within your business.

Water efficiency audits conducted by SA Water have indicated that most hotels are capable of achieving 20% water savings without compromising guest comfort levels.

You can start tracking your business's water consumption and compare your water efficiency against other hotels. To do this, determine your kilolitres of water consumption per bed by dividing the total water consumed over a 12 month period by the total number of beds. The table below indicates average performance and can be used as a guide to gauge your businesses water efficiency.

Average water consumption for hotels

Type of facility	Average consumption (kL/bed)
Minimum - Best	227
Maximum - Worst	435

Sourced from City West Water Benchmarking Study

#### General maintenance

Often leaks go unnoticed due to a lack of focused inspection and difficulties associated with staff reporting. With an established leak identification program and staff education, unnecessary water wastage can be avoided.

Common areas for leaks to occur include toilet systems, piping joints, pump seals, hose nozzles, shutoff valves (solenoids and float) and cooling systems. Our [General maintenance, leaks & monitoring](#) fact sheet provides detailed information on how to identify and minimise water wastage within your business.

#### Guest Rooms

The majority of water in hotels is used in guest rooms. Guest rooms are therefore an easy target for directed water conservation measures.

- Aerators or flow restrictors can reduce bathroom taps from 20 litres a minute to 6 litres a minute. In line flow restrictors can be fitted on classic pillar cock taps or under basin restrictors can be used.
- Upgrading older cisterns to the most efficient type 4 star rated with 4.5/3 litre dual flush will produce the most significant water savings.
- Replace the showerhead with a 3 or more WELS star rated (9 litres or less a minute) showerhead.

*If 100 guest rooms each have their 15-20L/min showers upgraded to 7-9L/min over a shower period of 8 min a day savings of 2,336kL can be achieved in a year.*

#### Further information

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- Use educational material like SA Water water wise stickers, shower hangers and basin cards to encourage customers to take shorter showers (aim for 4 minutes) and ensure basin taps are not left running needlessly. Educational material is available from SA Water's Business Sustainability Group
- Encourage guests to be more water and energy efficient by reusing towels instead of getting them laundered every day.
- Use incentives like discounted dinner vouchers for customers willing to forego daily towel/linen changes.
- Conduct monthly inspections of the rooms focusing on piping joints, toilets, hand basins and showers.
- Train staff and cleaners to report leaks directly to maintenance and ensure these leaks are fixed immediately.
- Review cleaning practices and minimise toilet flushes and water used in the hand basin and shower.

### **Amenities**

Water use in public and staff amenities can account for 15% to 40% of the total water usage depending on the business activity (Sourced from Sydney Water Fact Sheet 'Public Amenities' [www.sydneywater.com.au](http://www.sydneywater.com.au)) Often the water used by toilets, showers and basins are overlooked which makes this area an easy target for water savings. The installation of water efficient devices in heavily used guest areas can be very cost effective due to the high usage of individual fixtures.

E.g. A full flush toilet uses about 11 litres per flush compared to a dual flush toilet which can reduce each full flush to 4.5 litres and each half flush to 3 litres. If you have 100 users on a daily basis this could save up to 700kL annually.

Our [Amenities](#) fact sheet provides detailed information on how to conserve water within these areas.

### **Kitchens and Food Service**

There are many basic ways you can improve the water efficiency of your kitchen & food service area. These include understanding your water use, tracking your water efficiency (benchmarking), improving your general maintenance, encouraging staff to adopt water saving practices and introducing water efficient fixtures.

Our [Kitchens and Food Service](#) fact sheet provides detailed information on how to conserve water within this area.

### **Laundries**

The amount of water, energy and chemicals used by in house laundry facilities can be significant to the overall operating costs of a hotel. By educating staff, improving operational procedures and implementing equipment modifications water savings can be achieved.

### **Adopt water saving practices**

- Consider outsourcing laundry cleaning to water efficient commercial facilities.
- Encourage guests to be more water efficient by reusing towels instead of getting them washed every day
- Ensure washing machines are only operated when full.
- Organise staff reviews/training to ensure laundry machines are being operated correctly. Adhere to manufacturer's recommended settings.
- Regularly check the water level is correct during operation.
- Discuss potential water efficiency improvements with your chemical supplier.
- Talk to your staff on a regular basis about potential water saving ideas.

### **Potential water saving opportunities - equipment modifications and maintenance**

- Consider retrofitting a tank on the washer to capture final rinse water for reuse as pre-wash for the next cycle.
- Often dry cleaning machines have single pass cooling water. Consider converting the cooling operation to a closed loop system.
- Consider installing an ozone system. Ozone is an oxidising agent which works in conjunction with your laundry chemicals. Its application reduces the need for chemicals and water as fewer rinse

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cycles are required to flush linens of residual chemicals. Energy savings are also significant as hot water is no longer required for washing.

- Consider replacing conventional washers with continuous batch systems. Batch washers use counter current flow to recycle water and heat reducing water consumption.
- Upgrade your conventional washer to a 4 star WELS rated or higher.
- Regularly check machines for leaks and ensure scheduled preventative maintenance takes place.

### **Cooling Towers**

Cooling towers are used in hotels for air-conditioning systems. Cooling towers use water for the cooling process, via evaporation. As water evaporates total dissolved solids (TDS) build up, this can cause scaling, reducing the efficiency of the unit and increasing energy consumption. Therefore water cooled units are required to bleed and top up with fresh water to maintain TDS levels. Cooling towers can be an energy efficient option and assist with water recirculation but they can also waste a lot of water, especially if they are not maintained.

Our [Improving Cooling Tower Efficiency](#) fact sheet provides detailed information on how to maximise the efficiency of your cooling towers. Any water re-use or rainwater projects should be discussed with the Department of Health before work commences, to ensure there are no public health risks. Please contact them on 8226 7100 for further information.

### **Saving Water in Garden Areas**

Landscape gardens are important to the aesthetic appearance of hotels and are often designed to provide relaxing and recreational environments for guests.

#### **Here are some tips to help you save water in the garden:**

- Always ensure that all gardening activities adhere to the latest water restrictions. Detailed information can be sourced from the SA Water website [www.sawater.com.au](http://www.sawater.com.au)
- Install irrigation control systems to better manage your watering regime. Make sure you don't set the timer to over water your garden - and turn it off when there's a likelihood of rain.
- Install a dripper system and only water during the permitted days/hours.
- Use mulch to prevent water loss through evaporation and prevent soil erosion. Mulch can also help to smother your weeds. (If you live in a high bushfire risk area, check with the County Fire Service about the best way to use mulch in your garden).
- Plant indigenous native plants for your area - your local nursery, Trees for Life, the Australian Plants Society or State Flora can help you choose appropriate species.
- Plant your garden in watering zones (hydrozoning). Plants that require large amounts of water should be planted together. This helps to reduce the amount of water wasted on plants that don't need it.
- Choose a drought resistant lawn that will cope with our harsh, dry conditions
- Don't over water your lawn - train it to use less water by encouraging the roots to grow deeper.
- Set your mower level higher during summer and let your lawn grow longer. Keeping grass longer shades the soil surface and reduces evaporation loss.
- Weed! Weeds compete with your plants for water.
- Don't water during windy weather - the water will blow away from where it's needed most.
- Regularly check your outdoor taps and hoses for leaks. Leaks normally get worse, so it pays to fix them as soon as possible.
- Always use a broom or rake to clean paths, paved areas and patios.

### **Swimming Pool**

Many hotels maintain pool facilities for guest's recreation. The main loss of water from pools and spas is due to evaporation. You can reduce the amount of water lost to evaporation by covering pools and spas when not in use. This will help keep your pool clean, keep the water warmer and save you from topping up the pool/spa as often.

#### **Other top tips for pools and spas are:**

- Fix any leaks as soon as possible and check regularly your pool isn't losing water.

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- Get your chemical balance right. This will mean you won't have to empty your pool as often, resulting in water savings for you.
- Minimise the backwash frequency and volume if possible, liaise with your council to confirm guidelines.
- Make sure your pool's filter is working properly and keeping your water clean.
- Limit the number of times you have to top the pool/spa up by keeping a cover on your pool when it's not in use.
- For information regarding the impact of water restrictions on pool and spa maintenance please refer to the SA Water website [www.sawater.com.au](http://www.sawater.com.au)

### **Further information**

For more information on water conservation solutions within your business please contact us via email [businesswatersaver@sawater.com.au](mailto:businesswatersaver@sawater.com.au)

To measure your current appliance flow rates simply use a jug / bucket and stopwatch and record the water volume against time elapsed

For further information on water efficient products visit the product registry on the WELS website [www.waterrating.gov.au](http://www.waterrating.gov.au)

When altering flow rates ensure restriction devices are watermark certified and compatible with your water heater and the Australian Standard for Plumbing and Drainage AS/NZS 3500 is adhered to.

Sourced from Sydney Water Fact Sheet 'Public Amenities' [www.sydneywater.com.au](http://www.sydneywater.com.au) and Brisbane City Council Fact Sheet 3 'Water Efficiency for Hotels' [www.brisbane.qld.gov.au/](http://www.brisbane.qld.gov.au/)

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