

Bathroom and toilet

This Information Sheet provides information on water use topics, as a supplement to the Waterwise Business series of Checklists.

Water management options

A wide variety of water management options are available to building facility managers.

Some options simply involve educating building occupants on efficient water use through informational signs and stickers.

Others involve changing the way fixtures and equipment are operated and maintained.

The most significant long term savings usually require retrofitting or replacing fixtures and equipment.

Some options to reduce your water use will be immediately apparent, such as fixing a leaky tap. Others, such as determining how many and what types of toilets to install, require further research.

It is important to evaluate each option on its ability to conserve water, as well as its practicality.

For example, replacing a high-use fixture with a low-use fixture will enable you to realise the greatest amount of water savings over time.

Where limited budgets prevent the initial high price of replacement, other interim measures such as retrofitting toilets with displacement devices may help save significant volumes of water. Alternatively, look to replace the fixtures that are used most frequently first.

Refer to Information Sheet – *Flow Regulating Devices*.

User education

A simple way to manage water use is through user education. The use of signs in bathrooms encouraging efficient water use is becoming widely accepted. Some water saving tips are:

- Don't leave water running while brushing teeth or shaving.
- Encourage shorter showers.
- Ensure taps are properly turned off.
- Advise users that water efficient devices have been fitted throughout the building.

- Ask users to report any leaks.

These signs also promote the establishment as being environmentally and socially conscious.

Toilets and urinals

Toilets and urinals, particularly in areas of high public use, can account for up to 25% of a building's water use.

The following steps can be undertaken at nil or low cost:

- Fix leaks! A leaking toilet or urinal can waste up to 200 litres of water per day. Inspect all toilets regularly and conduct dye tests for leaks by putting a few drops of food colouring into the toilet cistern and checking for colour in the toilet bowl 15 minutes later.
- Check for damage. Some public toilets are prone to vandalism which may result in leaks.
- Check timing cycles and volumes for automatic flushing systems. Automatic flushing should be tied to the operating hours of the building.
- Have a regular inspection schedule and provide information on how users can report leaks.

Retrofit options:

- Install the latest dual flush toilets.
- Install low flow valves or adjust flush valves for 'on-line' urinals and toilets (ie without a cistern).
- Install waterless urinals. For more information, please see Information Sheet – *Waterless Urinals*.

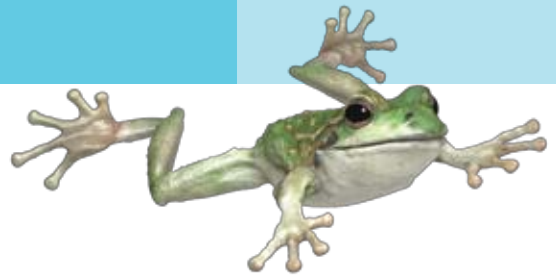
Possible problems:

One of the major causes of blocked toilets is the misuse of toilets as rubbish bins. In traditional 9 litre or larger cisterns, the high volume of water made most items 'flushable'.

With the dual flush cisterns, even if waste appears to flush, there is less water to propel the waste through the pipes, and blockages can occur if there is no additional water flowing from other sources. Consequently, regular inspection and maintenance is important. Also, ensure waste bins are provided.

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Taps and showers – general

Tap or shower use is controlled by the user, therefore the greatest water savings occur in restricting the flow from these fixtures. The user's perception of the quality of flow is an important consideration.

The following steps can be undertaken at nil or low cost.

- Fix leaks! A dripping tap can waste up to 500 litres of water per day. Inspect all taps regularly.
- Provide information of how users can report leaks.
- Provide water efficiency signs for users.

Taps

Consider fitting the following devices:

- Taps can be fitted with aerators which add air to the flow stream, resulting in a spray-like flow and reducing water usage, while maintaining washing effectiveness. These devices can reduce flow by up to 50%.
- Flow restrictors can be fitted inside the tap and can reduce flow by up to 50%.
- Tap aerators and flow restrictors are not necessary in baths where fast filling is required.
- Replace taps with reduced-flow models. Quarter turn taps with ceramic seats give greater flow control and are less prone to leakage.
- Install fixed flow taps that deliver a fixed quantity of water when operated (eg push-button taps).
- Install spring-loaded taps that shut off immediately after use.
- Install an automatic sensor controlled system for taps that uses a beam of infrared light to detect the presence of the user then delivers a fixed quantity of water.

Showers

Consider fitting the following devices:

- Flow restrictors can be fitted in shower taps, leaving the existing shower head in place.
- Replace shower heads with low flow models that can reduce the flow from up to 25 litres/min down to 9 litres/min. However, these may be prone to blockage in hard water areas, leading to increased maintenance. Flow restrictors within the tap may be preferable.
- Install fixed flow showers that deliver a fixed quantity of water when operated (eg push-button showers).

Baths and basins

When selecting hand basins and baths:

- Consider small hand basins with a pop-up plug which automatically closes the drain until a lever or button is pressed. These discourage running taps as the sink fills quickly.
- Consider deep and narrow baths. Have the bath insulated with fibreglass batts as it is installed.

For more information on the various products available and their individual water efficiency ratings please visit <http://search.waterrating.com.au>

References

Facility Manager's Guide to Water Management, Version 2.2
– Arizona Municipal Water Users Association.

DPPEA FY04-08 – North Carolina Division of Pollution Prevention and Environmental Assistance.

Further information

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