

THERE ARE SOME SIMPLE AND EFFECTIVE STRATEGIES THAT CAN BE USED TO MINIMISE THE RISK OF CONTAMINATION IN EVAPORATIVE SYSTEMS

Avoiding the swampy nasties this summer

Finding a way to keep your home cool in Victoria doesn't have to get you in a sweat this summer. Neil Cox discusses why swampies are safer than you think...

Ask a Queenslander what a swampy is and they'll give you a puzzled look. Ask a New South Welshman the same question and the result will probably be similar. Ask a Territorian and their mind will possibly drift to National Geographic documentaries profiling the alligator wrestling folks of America's deep south.

To the rest of us, who live in a broad swathe across the south, central and west of the Australian continent, a swampy is something that lives on our roof and fills our home with that gloriously cool, moist air throughout the dry, summer months.

The cooling method employed by evaporative air coolers, as the brochures refer to them, is as basic as it is effective. It mimics the Coolgardie coolers of the late 19th century that miners used as a rudimentary evaporative cooling

technique to keep their perishables edible. Some suggest that the prospectors themselves got the idea from observing the way Aborigines used kangaroo skin to carry their water and keep it cool in soaring temperatures. Either way, evaporation has long been realised as a highly effective method of heat transfer.

In the simplest terms, cooling methods such as cooling towers use the air to cool the water. The humble swampy effectively uses the water to cool the air. Evaporative air cooling systems consume a relatively small amount of electricity to run their fans and pumps that create and distribute the cool air. Water use is mainly by evaporation, and this produces the cooling effect, but there is generally a dilution-based system aimed at minimising salt build-up within the unit's water.

When that final cool change blows through in autumn, the roof goes silent and the evaporative cooler sits idle until the warmth of spring brings it back to life.

Greg Downing, director at Australian water treatment company HydroChem, has been treating water for almost 40 years in its various forms and says this is where the story gets interesting.

"Evaporative cooling systems, in residential or commercial settings, have not been implicated in any outbreak of Legionnaires' disease that we know of, even though the bacteria that causes the disease, Legionella, is detected from time to time."

"The NSW Code of Practice for Legionnaires' disease issued by the NSW Health Department makes reference to evaporative coolers," continues Downing. "Despite the evaporative cooler not being a regulated system, the Code of Practice still gives guidance on designing, installing, operating and maintaining them."

"There are some simple and effective strategies that can be used to minimise the risk of contamination in evaporative systems," says Downing. "Before shutting down their system, users and operators should be encouraged to run the fan in isolation for a few minutes to dry the filter pads. All units have this as an option, and they generally have a bleed-off built in too. The systems can be bled to prevent an excess of dissolved solids and impurities from building up within the units."

Downing also points out that while in Victoria evaporative coolers are not covered under the state's Legionella regulations, the government did release an operation and maintenance guide for evaporative coolers a number of years back. The document recommends cleaning and disinfecting the units at least every six months to prevent bacteria and fungi from growing during periods of inactivity that can then adversely affecting air quality when operation resumes.

"We see a spike in searches on our company's website with consumers using a variation on the search term 'evaporative cooler tablets chlorine' each spring," continues Downing. "Plumbing supply companies pleaded with HydroChem to develop a form of slow release bromine/chlorine that would offer their clients long term protection from algae, slime and bacterial growth, including Legionella. We did this a few years back, and it is now one of our leading lines in the plumbing market."

"The existence of nasties on your roof is entirely avoidable with a little spring cleaning," concludes Downing with a smile.

This article was written by Neil Cox from Neil Cox Ink, on behalf of HydroChem.

HydroChem is an Australian owned and operated company that has been a national leader in Australia's water treatment industry for almost 40 years.

