

# An Australian experience with cisterns

After four weeks in Australia and New Zealand, I am pleasantly surprised to report that their toilets actually do flush in a different direction.

The stranger part is that it's not about flushing clockwise or counterclockwise. Toilets from Down Under flush perpendicularly to the surface of the water in the bowl. First, the flush jets straight toward you; then, miraculously, the mini-geyser gets sucked down, under and out of sight.

But the more bizarre part is where their water comes from. Sure, it comes from the sky. But then it slides down rooftops into cisterns and gets pumped to the toilet, the shower, the drinking water squirter in the fridge and the garden.

Contrast this scenario with all the work that our water has to go through. Our water comes from the sky, too, but it takes a long time to make it to the tap. First, it probably had to freeze and end up glom-

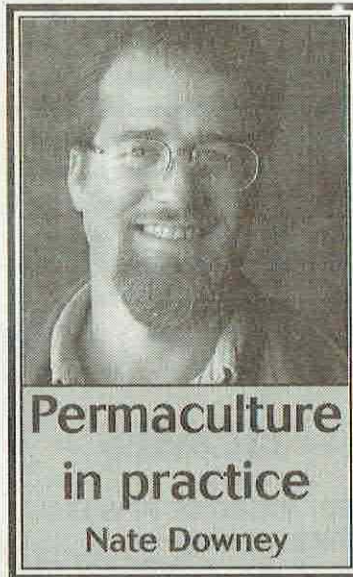
ming onto a glacier. Then after eons it sank down into our aquifer.

Centuries later we hire engineers, geologists and hydrologists (or at least a dowser) to tell us where our nearest water source might be. We pay for a massive drilling and pump project and the digging of a deep trench and the laying of a pipeline. The pump requires a large expenditure of electricity.

Sometimes, even after all of this work, our water must be cleaned with a "healthy" dose of chlorine.

Compared to the efficient and sustainable roofwater-catchment systems of the Aussies and Kiwis, our water delivery system is an energy-inefficient process that borders on the ridiculous.

It would be funny if it were not so serious. Right now communities throughout the Southwest are still in the midst of a frenzy to acquire and defend water rights. Since our aquifer is being depleted faster than



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it is being replenished, one day people will begin to see that a new approach to water is needed.

This approach will have to include cisterns. With our 13 inches of average annual precipitation, a 1,000-square-foot roof harvests nearly 10,000 gallons of water per year. This is certainly more than enough water for establishing and maintaining a native land-

scape around the home or business.

When combined with greywater recycling and composting toilets, families throughout the state could live independent of expensive water rights or diminishing aquifers. If we consider garages, carports, portals, sheds and other impervious surfaces, most households have water catchment potential that far exceeds 1,000 square feet.

In Australasia, where only the simplest filtration systems are commonplace, no one seems worried about getting sick from drinking roof water. Here in New Mexico, however, where we have more lawyers than cows, cistern systems that filter water for drinking can be complicated: charcoal, micron, cellulose and ultra-violet filters and ozone distribution and "first rinse" systems.

"Especially if your roof is flat, viruses, bacteria and oxidized paint on the ground can be blown onto your roof," said Greg

Friedman at Good Water Company in Santa Fe, "so it is very important that appropriate filtration systems are installed." The company's roofwater filtration systems range in price from \$300 to \$5,000.

As we say in permaculture, it is usually best to "start small." Our first step as a community will not be to drink water off of our roofs. It would probably be best to get in the habit of using cistern water for landscaping, because flowers, grasses, shrubs and trees need very little in the way of filtration.

For many people, using cisterns would be like turning the world upside down. This might be just what folks need given the Southern Hemisphere's wealth of inspiration.

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