

Watershed days for Desaln8

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By Mark Lawson

One company hoping to turn a dollar out of the drought in the Murray Darling is Desaln8, which is producing a device that can extract usable water from brackish aquifers at a commercially viable cost.

Based in the Melbourne suburb of Mulgrave, Desaln8 is finishing testing and trials of its product – a pipe with a filter unit that is sunk in the ground and can treat the water to acceptable standards.

Desaln8 managing director Chris Dawson says demand has been so strong that the company will look at increasing production and may have to be selective in filling orders.

One business to get a system is Glenkara Winery in the Victorian Pyrenees region (near Avoca and Ararat).

When the winery was established 11 years ago it was expected to produce 10 tonnes of premium grapes a hectare in a normal rainfall year. Since then, because of consecutive years of drought, it has produced little more than one tonne a hectare.

The Desaln8 unit is now extracting usable water from a huge underground aquifer that was previously considered too saline for irrigation. More importantly, company executives say the water is being extracted at a lower capital and operating cost than a conventional desalination plant.

Dawson says the costs vary depending on the type of aquifer, its depth below the surface and the chemical composition of the water. But if the aquifer is at a depth of 35 metres and the system is to be designed to cut the total dissolved salt content of the water from 3500 parts per million to 100 ppm (which is too low for long-term drinking – some salts are desirable), then capital plus operating costs work out to \$1200 to \$1500 a megalitre, which Dawson considers comparable with the cost of water from a town supply.

Invented by Chris Barber in Perth, the system is a pipe with a filter acting by reverse osmosis. The water flow is helped along by a small electric pump.

According to its inventor, the way the system is designed, the filter does not have to be cleaned often and the pump requires only a small amount of power.

In raising the money required to get its product to the market, Desaln8 was backed by a number of small shareholders but relied mainly on its major backer, Melbourne-based Mecrus Pty Ltd, a process improvement and asset management company.

Dawson hopes Desaln8 will be cash-flow positive within six months, but it may take up to 18 months, and by the time it is fully viable it will have used \$2 million to \$5 million in capital.

A great deal of water could be available. The aquifer system beneath the Pyrenees region is estimated to contain the same volume as the Thompson Dam, Melbourne's largest reservoir.