



## Grapes, oceans and the Olympics

Plenty of businesses are struggling with water availability and the quotes for treatment plants are beyond absorbing into most budgets. But there is an alternative.

"It is desperation which has brought some of these people to us", admits Hydrosmart's Paul Pearce. "I guess we're an alternative technology, but that's more because we sit outside the solutions being sold by the big players. Yes, our technology is based on complex science, but it's delivered simply and is therefore low cost."

Hydrosmart water treatment systems are used by a range of industries and businesses. "The vineyards and market gardeners probably are not so surprising, but we're also working with the body responsible for cleaning

water in preparation for the Beijing Olympics, and we're currently setting up a trial in Singapore for one of the world's largest shipping tanker lines, Neptune Orient Lines (NOL)," said Paul.

"Victorian vineyards which are being forced to use bore water with a sodium chloride saturation of 3,000 parts per million. Based on the high volumes of water they need to process, they've been considering a million dollar reverse osmosis plant with an ongoing running cost of \$300,000. This would be a major investment into a solution which has other hidden environmental costs: what to do with the reject stream of highly concentrated salt water, and the waste chemicals used in pre-treatments and system cleans."

"The Hydrosmart system is cheaper and doesn't produce toxic by-products. It uses resonance frequencies to break the bonds between the salt crystals (secondary school science) so that from a growing plant's perspective the water is no longer saline. It also runs on as much energy as a light globe."

Beijing has issues with blue green algae and the trial Hydrosmart is running will almost certainly be taken up with speed to tackle contaminated water in various sites prior to the Olympics. But perhaps the strangest application is the one at sea. "All tankers use sea water as ballast, when they unload they adjust their riding height to remain seaworthy. The problem lies in the picking up and dropping off of large amounts of

water all over the world – the source of algal, bacterial and micro-organism cross-seas' pollution." said Paul.

"One shipping company, NOL, is looking at onboard treatment solutions; one of their ships is currently being fitted with Hydrosmart technology. In this case the salt break down releases free chlorine which acts as an antibacterial."

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