

## Water and Sanitation in the News

### *New water treatment device 'ahead of the curve'*

South Africa and South Australia have both been on the receiving end of the El Nino phenomenon that has sucked the land dry in recent years. While SA's drought has lasted two and a half years, Australia has seen a slight turnaround in average rainfall figures. September has been a particularly wet month according to the Australian Government's Bureau of Meteorology, and the higher rainfall has resulted in higher saline and alkaline levels.

However, water treatment chemicals and filters are being pushed out the pipeline to make way for a new device that fits on the outside of pipes. The device was invented by Hydrosmart in Adelaide, South Australia, one of the driest regions in the world. It was designed to treat water without the use of chemicals or filters. "We're a water conditioning business that doesn't use filters, chemicals or purifiers," Paul Pearce, managing director at Hydrosmart said.

#### *How the device works*

The microprocessor unit consists of an antennae wound in a metal coil that emits a series of computer-generated frequencies to break down scaling in pipes, taps and containers. Pearce explained that water infrastructure contains minerals such as calcium or iron that pass through the water in the pipes. These chemicals can bond together and block pipes.

The frequencies and pulses from the device pass through the coil to charge the water externally. This charge changes the behaviour of the water and disrupts the bonds shared between minerals. This process results in calcium, iron and gypsum scale being dissolving off water pipes. It also helps to reduce the size of mineral build-up when water passes through taps or showerheads which has previously resulted in damaged hair and irritated skin.

#### *Innovative, cost-effective technology*

Pearce described the technology as being "ahead of the curve". "People look at consumable technologies or water softeners for pulling calcium out but you need a lot of power to achieve those outcomes," he added. The microprocessor was developed to use approximately AU\$10 (roughly R108.00) worth of electricity a year, which in most cases, uses less power than a standard light bulb. The device recently found its way to Asian countries, including Bangladesh and has the capacity to work year-round, provided it remains activated.

Sources: [Infrastructurene.ws](http://Infrastructurene.ws), 17 October 2016

### WAMTechnology Advances at NMBM

WAMTech was appointed to implement the Municipal Assistant™ System at Driftsands WWTW as a pilot project. The implementation was executed in the following phases:

- **Phase 1:** Consisted of a Site Visit which involved Asset capturing and assessment on component level; Process Flow, Layout and Monitoring diagrams; an Organogram (flow of operational information at Driftsands WWTW); as well as providing historical electronic information of year 2016.
- **Phase 2:** Involved the uploading of electronic data where WAMTech provided IT services to setup & upload electronic data (records) such as WQ Records, Literature Docs, Wind Data, Rainfall Data, Inspections, Budgets, No of Staff Members, No of Suppliers, DWAS Incidents, GEO Overview, etc.
- **Phase 3:** Comprised the Handover of the deliverables at Driftsands WWTW, which included MA Master User Manuals, Process Flow Drawing, Layout Drawing, and Files with hardcopies: Preventative Maintenance Job Cards, Reactive Maintenance Job Cards, Inspections Templates, Daily Logbook Templates, and Administration File with hardcopies of technical drawings.



- **Phase 4:** Concluded the implementation with WAMTech presenting a 4-day MA Course in Port Elizabeth which focussed on the following modules: Support Tools, Administration, and Plant Compliance & Performance & Assets. Thank you to NMBM and Aurecon for providing the venue and organizing the course!

We are certainly looking forward to the work that lies ahead and all possible future collaborations in supporting NMBM in achieving and maintaining service delivery of the highest quality at all WTW and WWTW.

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WAMTech are specialists in implementing technology systems for improved governance, focussing on Water and Public Health Information Systems

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