DESALINATION - CASE STUDY

Nauru

> The customer

Government of Australia with the project to be located at the Nauru Utilities site and eventually handed over to the Government of Nauru.

Photo shows both the 800k/day SWRO and the 500kl/day SWRO supplied by Avanale Water Solutions



> The needs

For many years Nauru has had a water deficit which at times has been serious due to:

- Drought conditions with rainfall being below average
- Limited availability of natural water resources with no natural freshwater lakes or rivers
- Very limited Bore water is increasing in salinity
- Increase in demand for water due to population growth and economic development.
- A containerised solution with an extremely short lead time was required.

Avanale Water Solutions-800 m³/day

- Avanale Water Solutions was successful in tendering for the supply of an 800kl/day containerised reverse osmosis process funded by the Government of Australia. The scope involved full design of the process and whilst not a part of the scope Avanale assisted in site layout. The clients instructions was to design and build a unit in the shortest time possible. A training and an ongoing upskilling program was also specified.
- ◆ The seawater desalination plant utilised the membrane reverse osmosis process. This is a containerised system utilising an existing sea water intake for the feed water. The system is capable of producing 29.2 million litres of potable water a year. The system is fully automated and compliments the previously supplied 500kl/day reverse osmosis unit supplied 6 months earlier
- Avanale was engaged to perform full installation and had the unit operation within one week of attending site. The unit was specified to be built in an extremely short lead time, which was achieved.
- Over the last decade the cost of producing desalinated water has fallen Significantly, this system utilises a Fedco energy recovery process.

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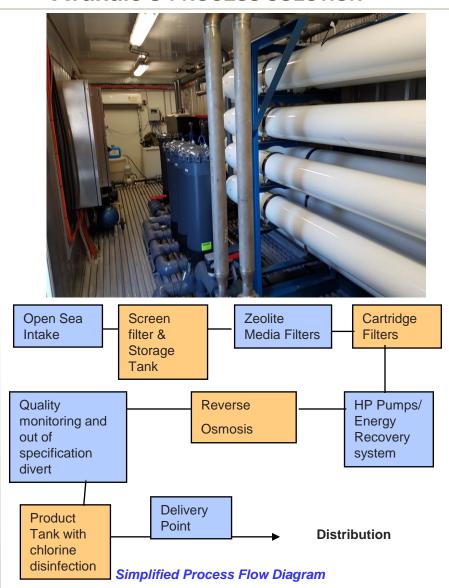
 Nauru being a small Island state has always been exposed to the risk of water shortages, with no natural lakes or rivers and a growing population, water security has been one of their main challenges.



Avanale's PROCESS SOLUTION

> Results

- The extremely short lead time was achieved
- The unit was installed within a couple of weeks with water flowing within one week of Avanale attending site
- The Reverse Osmosis process will provide a reliable source of potable drinking water for the people of Nauru
- The installation will contribute to Nauru water security
- The client was extremely satisfied with the success of the project to the point of appointing Avanale as on on-going "Subject Matter Specialist" for 3 years to assist with operation and training of their water and wastewater assets.



> Contact

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