

## Adelaide Desalination Project Fact Sheet

### The pilot plant

#### What is a pilot plant?

A pilot plant involves running a small scale desalination plant to determine whether the seawater can be pre-treated to a sufficient quality and at a feasible cost for reverse osmosis. We test critical processes at a smaller scale to refine the process and pre-treatment information gained from pilot plant testing, including:

- Seawater quality information
- Pre-treatment requirements for the full scale desalination plant
- Chemical conditioning requirements
- Filter requirements
- Treated water quality information

#### Why do we need a pilot plant?

For large-scale membrane desalination plants, getting the pre-treatment process right is critical. A good understanding of the effect of feed water quality on membrane performance results in excellent quality water, lower energy consumption and reduced maintenance requirements.

Pilot plants are used to test local water quality within the area of the preferred site and determine and refine the pre-treatment processes for the desalination plant.

#### Port Stanvac pilot plant

A temporary pilot plant at Port Stanvac, in the southern suburbs of Adelaide, was an important first step for the \$1.8 billion Adelaide Desalination Project.



The Port Stanvac pilot plant has:

- Provided continuous online monitoring of seawater quality to detect any seasonal variations in water quality.
- Assessed how well different pre-treatment systems can handle changes in seawater quality throughout the year.
- Helped us assess the potential environmental impacts of brine discharge for the full-scale plant.
- Helped us assess the performance of the downstream reverse osmosis membrane system. This includes the chemical cleaning frequency, the quality of desalinated water and the anti-scaling dosing requirements.

The pilot plant is now being operated by AdelaideAqua – the contractor designing, building, operating and maintaining the Adelaide Desalination Plant – as part of its testing, and within strict environmental guidelines.

**More information about the pilot plant**

As the Adelaide Desalination Project progresses, we will keep the community informed through newsletters, information sessions, displays and other means of communication. We will also be engaging the local community and interested stakeholders through stakeholder forums, information days, site visits and briefings.

Visit the project website at [www.sawater.com.au](http://www.sawater.com.au) or call 1800 812 362.