

## Adelaide Desalination Project Frequently Asked Questions

### **What is a desalination plant?**

A desalination plant removes dissolved salts and impurities from a water source such as seawater and turns it into fresh drinking-quality water.

### **How does it work?**

Desalination has been used in Australia for about 20 years to treat salty groundwater and seawater. The most common technology used is reverse osmosis where high pressure forces the salty water through a membrane which acts like a fine strainer to remove salt and impurities.

### **What does desalination water taste like? How clean is it?**

Just like your normal drinking water mains supply, taste is really a matter of opinion. Some users may notice a slight difference in taste when the desalination plant is brought online but others may notice nothing at all.

When the plant is completed the water will be treated to meet Australian Drinking Water Guidelines and SA Department of Health requirements.

### **Does South Australia need desalination?**

Desalination is just one way we are securing our water for the future. Unlike other options, it's not dependent on climate. South Australia is a dry State and experiences long spells without rainfall so planning for the future means we need solutions that do not depend on rainfall.

### **What is being considered for South Australia?**

The South Australian Government is building a 100 gigalitre seawater desalination plant at Port Stanvac in Adelaide. This plant will supply up to half of Adelaide's annual water use.

### **Why Port Stanvac?**

The Government's Desalination Working Group recommended coastal Port Stanvac as the most suitable site for a reverse osmosis plant because of relatively deep seawater, marine dispersion characteristics, access to the water supply network, suitable land availability and construction costs.

### **How much will the Adelaide Desalination Project cost?**

The indicative cost for a 100 gigalitre seawater desalination plant in Adelaide is about \$1.8 billion. The actual final cost will depend on a number of factors including the plant's exact location, how and where the brine is dispersed and the energy used to run the plant.

### **How will the water be distributed?**

It is intended the water will be pumped from the desalination plant through a new pipeline to storage tanks at Happy Valley, where it will be combined with water from the Happy Valley water treatment plant before entering the existing water supply network.

### **Why desalination instead of recycling water?**

The South Australian Government is investigating a number of initiatives relating to recycled stormwater and wastewater. Desalination is one part of a four-way strategy to secure our water for the future, which includes managing use, recycling and improving storage capacity in our catchments.

### **What about energy use?**

Preliminary estimates are being investigated to offset the greenhouse gas emissions associated with the main construction activities and ongoing operation of the plant. The final approach to managing greenhouse emissions will be confirmed as the project plan progresses. The South Australian Government is committed to using renewable energy for the Adelaide Desalination Project.

### **What will be done about noise?**

The main noise associated with desalination plants is from high-pressure pumps and these are housed inside building structures. Any EPA noise regulations for industrial activities will be met and the plant will have an appropriate buffer zone to any residential areas.

### **Can we use the salt from desalination for other purposes?**

Calculations indicate we would need approximately a 6400 hectare area to dispose of saline waste from a 50 gigalitre per year desalination plant. This area is around eight times larger than the existing salt pans at Dry Creek north of Adelaide.

### **What kind of work will be involved on the site?**

The scope of the works will involve construction of buildings, tanks, pump stations and pipelines on the site, as well as some underwater work to install the marine intake and outfall pipes. Some heavy construction machinery will be required at times during the construction phase.

All work undertaken at the site will be done so within environmental, development and building controls and a series of management plans will be in place. SA Water and the project contractors will liaise closely with the neighbouring communities prior to and during construction.

### **Where do I find more information?**

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.