

# COMMUNITY UPDATE – SOUTHERN SEAWATER DESALINATION PLANT

*This is the first in a regular series of articles, news and other matters of interest involving the new seawater desalination plant that will be built at Taranto Road. It will complement our community newsletters and other communications.*

## What is desalination and how does it work?

Desalination is the removal of salt and impurities from groundwater or seawater to produce fresh drinking water.

It actually happens naturally every day as part of the Water Cycle – water evaporates from the sea leaving the salt behind – the fresh water vapour rises to form clouds, and eventually falls as rain.

This process of desalination by distillation – heating water, leaving the salt and impurities behind, and condensing fresh water from the vapour, or steam – has been used for thousands of years.

The Southern Seawater Desalination Plant will use a process called Reverse Osmosis. Reverse Osmosis is simply a filtering process. Seawater is pumped into the desalination plant from the ocean and passes through two levels of initial filtration to remove most of the large and small particles and impurities.

The filtered seawater then enters the reverse osmosis plant. Here, it is forced under pressure through special membranes that act like microscopic strainers. The pores in the membranes are so tiny that bacteria, viruses and other impurities – and the salt – are left behind as fresh water flows through.

Around 40% of the water that goes through the desalination plant comes out as fresh drinking water.

The other 60% is pumped back into the ocean. As it is more salty than normal seawater, special diffusers ensure it mixes quickly and thoroughly back into the sea. This reintegration is closely monitored to make sure our marine environment is not harmed in any way.



*The environment will be closely monitored to safeguard marine and land-based flora and fauna.*

Come and meet us: Binningup Country Club on 25 September 2007 for a project update and an opportunity to meet the project team and ask questions about the project. More information on this forum in the next four weeks.

For more information please contact us by email [desalination@watercorporation.com.au](mailto:desalination@watercorporation.com.au) by phone 1800 810 075, or write to us at PO Box 100 Leederville, WA 6902.

