

Thursday, 21 April 2011

LAST LOOK AT ADELAIDE'S DESAL TUNNELS AS FIRST WATER NEARS

Adelaide's \$1.83 billion Adelaide Desalination plant has now reached several major milestones, with the completion of intake and outfall tunnels.

Minister for Water Paul Caica today inspected the recently completed underground tunnelling shafts before they are due to be flooded with seawater in the coming days.

Mr Caica said the completion of the intake and outfall tunnels and the intricate work done on the cross-connection under the seabed, is a major milestone in the project's construction phase.

"Two borers named *Cora the Bora* and *Nessie* by local school children, worked for more than 40 weeks to dig the 2.4km of tunnels under the sea bed," he said.

"For the past 15 months, crews have been working to complete the construction of the tunnels.

"This will be the last time we can get down here for a look at what is a key milestone for South Australia as we look to secure water for our future.

"Construction of the project's intake and outfall tunnels was completed in late March and now the final touches are being made to ensure commissioning can begin soon.

"Once the tunnelling system is commissioned, the intake will be able to draw in raw seawater from 1.4 kilometres offshore and into the plant's pre-treatment area before it runs through the reverse osmosis process.

"Following the treatment process, the one-kilometre outfall tunnel will then take the brine and disperse it out to sea in line with SA Water and AdelaideAqua's environmental management program.

"This milestone is a critical step in building the desalination plant that will ensure South Australians have a secure water supply into the future completely independent of climatic conditions.

"We are advised the desalination plant is on track to produce first water by the end of July and overall completion of the 100 gegalitre plant by the end of 2012."

Mr Caica also marked the final installation phase of the reverse osmosis rack which will be desalinating the first water from the plant.

The superfine membranes which are placed within the reverse osmosis tubes are currently stored off site and will be transported to site only days before seawater first goes through this rack.

“The reverse osmosis rack is what the construction team refers to as the ‘lungs’ of the plant where the seawater will be pushed through super-fine membranes at incredibly high pressure to remove up to 99 per cent of the salt and inorganic matter in the water,” Mr Caica said.

“This is integral to the desalination process which removes all impurities from the water and turns it into fresh, quality water.”

Mr Caica said AdelaideAqua has also completed construction of the pre-treatment system for first water and this is now going through the final commissioning phase.

“This is another important milestone to allow the start of wet-testing and provide the opportunity to carry out critical tests prior to the introduction of seawater to the plant,” he said.

Other key milestones which, have been completed (or are underway) on site are:

- Approximately 200,000 tonnes of material moved from the site spoil mound as part of our promise to the local community, businesses and in line with our environmental commitments;
- Successful hydro-testing of one of the two 25 megalitre treated water storage tanks;
- Construction start of the southern and western wetlands basins – and important part of maximising our use of stormwater on site;
- Progressive installation of solar panels on the roof of the first 50 gigalitre reverse osmosis building;
- Complete erection of the Interpretive Centre’s steel structure; and
- Energisation of a number of switchboards across the site.