

SOUTHERN SEAWATER DESALINATION PLANT

MYALUP COMMUNITY MEETING – 30 MAY 2007

7.00pm, MYALUP COMMUNITY RECREATION CENTRE

STICKY NOTE QUESTIONS AND ISSUES WATER CORPORATION RESPONSES IN ITALIC

These questions were written on sticky notes by members of the community, and posted on noticeboards at the front of the room. The responses have been provided by the Water Corporation project team.

Technical

1. How far apart will the inlet and discharge pipes be? Which pipe will be south, which north?

How far will the inlet pipe be from Binningup and the nearest reef and also the outlet pipe?

The inlet and outlet pipes will be in roughly the same location, approximately 1km north of Binningup town. Detailed design of the intake and outlet pipes has not yet been developed, however the intake pipe is expected to be located at a depth of 6-7m (approximately 400m from the shore) and the outlet pipe at a depth of 10m (approximately 500-800m from shore). The pipelines will be located to minimise any effects on sensitive marine habitats, such as seagrasses and reef systems.

2. Nick said if we have 2 dry years the project will be rushed through. How is this possible in the given timeframe of end of 2011 start up, when it will take all this time to plan and consider environmental consequences and approvals?

Construction is expected to begin in 2009 and be completed in 2011, with the new plant operating by late 2011. The formal environmental approvals process is expected to take 12 to 24 months, however if this process is completed more quickly it may be possible to begin construction slightly earlier.

Social

1. New Terrorist target. The desalination plant is a new potential terrorist target on our doorstep.

Being critical infrastructure and supplying a high percentage of the state's water it is a prime target. How will the Water Corporation address the need for terrorism security in such an open and accessible site? Will you warn residents of a major potential new terrorist target?

Safety and security of the plant and the local community is vital to the Corporation. Detailed security plans will be developed and implemented during construction and operation of the plant.

2. Has there been any measurement of the increase in noise from the Kwinana Desalination Plant and the impact this level of noise would have on Binningup and Myalup?

Noise will be controlled so it's no louder than normal noise levels at the fence line. You won't be able to hear it in Binningup or Myalup.

Noise sensitive design and sound enclosures on machinery and buildings can be used to minimise the noise from the plant. The Corporation will do noise studies in a range of locations, in different weather conditions before, during and after construction so we know exactly what normal noise levels are. We'll work with the community and the regulators to decide on a noise level for the edge of the property that is reasonable and meets world's best practice, then we'll design the plant to meet that noise level or better.

3. Kemerton option must be investigated further! Water Corp must be transparent!

Kemerton Industrial Park is considered to be not a suitable location for the plant, based on a range of factors. In particular it is too far inland, requiring significantly more energy to pump the water into the plant and back out to the ocean. The Corporation is preparing a detailed response outlining some of the reasons Kemerton Industrial Park was considered an unsuitable location for the desalination plant.

4. Is the plant likely to attract other industry infrastructure? Where there is one there will be more zoning?

Desalination is not heavy industry and the desalination plant should have no impact on surrounding land use.

Environmental

1. Will there be detailed research studies done on effects on vegetation in the locality given all studies seem to be directed to the marine environment and not the terrestrial one?

Detailed environmental studies will be done on land and in the ocean to ensure the plant has minimal impact on the surrounding environment. The main issues on land are associated with wetlands, clearing of vegetation and fauna that are supported by that vegetation. Impacts will largely be avoided by routing pipes around wetlands and using cleared areas wherever practical for pipelines and the plant.

Further work is being done to ensure we can best manage all possible environmental impacts and the community will be kept informed throughout this process.

2. Publish

- actual energy use
- actual energy cost
- actual plant production

Detailed design of the plant has not yet been developed so the exact energy use and cost are not available, however a desalination plant generally uses around 4 kilowatt hours to produce one kilolitre. The estimated cost of building the plant is \$640million and an additional \$315million will be required for integrating it into the water supply scheme, approximately \$955million in total.

3. Independent checking of product water quality publish info.

All drinking water from all Water Corporation sources undergoes regular water quality testing and meets Australian Drinking Water Guidelines. Further details including the Water Corporation's Drinking Water Quality Policy is available at http://www.watercorporation.com.au/W/waterquality_policy.cfm?uid=4439-2667-8653-9931

4. THM's from R/O plant cause CANCER.

THMs (Tri Halo Methanes) are caused when organic material comes into contact with chemicals including chlorine or bromine. All water supply has the potential to produce THMs, and this is an issue the Water Corporation takes very seriously. Desalinated water produced in WA has extremely low levels of organic material due to the fine filtration process. Therefore desalinated water has a very low risk of producing THMs, much lower than most other water sources.

5. Noise is indicated as being low impact –

- What level?

- What Db is acceptable under DEC requirements?

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6. What benchmark studies have been completed in relation to marine habitat, flora and fauna?

The Corporation has undertaken environmental and engineering investigations to assess the viability of the site including marine and weather monitoring. Further detailed studies including marine and land flora and fauna surveys are underway. As part of the environmental approvals process the Corporation will develop and publicise an Environmental Scoping Document which describes the project, the environmental issues and outlines the studies and approaches that will be used to assess impacts.

The Water Corporation has implemented the most intensive ocean monitoring program of any desalination plant in the world at its Kwinana desalination plant. A thorough monitoring program will also be used at the Binningup plant.

Economic

1. Cost comparisons of above and below ground power supply options must be done properly and also consider economic and social considerations.

A power line will be built from the plant to the power network at Kemerton Industrial Park. The power supply route, above and below ground options and the associated costs are being planned in discussion with the local council and Western Power. This is yet to be finalised.

2. Potential for negative impacts on land/housing values. What studies either have been done or are planned?

The Corporation will consider the impact of the plant on land values in the surrounding area as part of a Sustainability Assessment of the plant.

3. What is real desalination cost?

- \$1.16: Perth Seawater Desalination Plant; and
- \$1.90: projected for Southern Seawater Desalination Plant, compared to:
- \$2.55: QLD Government