

VICTORIAN DESALINATION PROJECT

FACT SHEET

**WATER NOW
AND FOR THE FUTURE.
FOR SURE.**

MANAGING ACOUSTIC IMPACTS

Victoria's new desalination plant has been designed to meet strict noise limits defined by the Environment Protection Agency (EPA) and the environmental performance requirements of the project.

Were noise impacts considered during the planning stages of the project?

Yes. Noise impacts were assessed during the Environment Effects Statement (EES) for the project.

Noise monitoring was carried out at various locations to establish existing noise levels in the area prior to the desalination plant's operation.

The baseline study determined the amount of existing noise created by things like surf, wind, rain, local traffic, wildlife and agriculture.

Weather conditions can influence noise levels and this was also taken into account.

AquaSure continued these studies after being awarded the contract in July 2009, carrying out additional research to understand seasonal variations in more detail.

What are the noise requirements for the project?

Victoria's new desalination plant has been designed to meet strict noise requirements defined in AquaSure's contract and the EPA Works Approval for the project.

These requirements are based on the expectation that the desalination plant will operate 24 hours a day, 7 days per week.

They state that when the plant begins operating, it must comply with both EPA guidelines for noise in country Victoria and State Environment Protection Policy (SEPP) requirements.

Based on these requirements, the plant has been designed to comply with operating noise limits of 45 decibels (dBA) during the day and 39 dBA at night at the nearest neighbouring residences.

Noise limits are higher during the day. This accommodates normal activities which take place during this time – for example, people arriving for work in their cars, trucks delivering supplies and emergency generators which are periodically tested during the day.

Will the design of the plant achieve these noise limits?

Extensive computer modelling has been carried out to predict the noise impacts of the plant during operations.

The EPA has assessed and approved the results of this modelling, which indicates that the plant's design will meet the noise requirements of the project.



Modelling indicates that the plant's design will meet the noise requirements of the project

How will the design of the plant achieve the noise requirements?

In line with the objectives of the Victorian Desalination Project, the desalination plant has been designed to minimise environmental and social impacts wherever possible.

Some of the key design features that will assist in managing noise impacts include:

- ✓ Constructed dunes surrounding the plant serve a dual-purpose as a key landscaping feature of the coastal park and a sound barrier
- ✓ Plant buildings are set below ground level to provide even greater noise insulation
- ✓ The plant’s roof system also includes special acoustic panels, used with great success at airports and nightclubs
- ✓ Buildings that house noise generating equipment will be acoustically insulated and some equipment will be fitted with sound enclosures.

Will weather conditions influence the amount of noise?

Yes. Weather conditions can impact how far noise travels in certain directions.

For example, noise may be heard from further away on a very still day or with a light breeze than on windy or stormy days.

This type of effect has been allowed for in the noise modelling and plant design.

Who will verify that the plant is complying with these noise requirements?

The Independent Reviewer and Environmental Auditor (IR&EA) is overseeing the construction and operation of the desalination plant.

The IR&EA is responsible for reviewing performance and carrying out environmental audits to ensure that AquaSure and its contractors have complied with environmental requirements and environmental management plans.

HOW NOISY WILL THE PLANT BE?

