

Integrated Water Strategy

Desalination

May 2007

Questions and Answers

Why do we need desalination?

Existing groundwater supplies are not sufficient to meet expected growth in water demand in Agnes Water and Seventeen Seventy. Council investigated all available options and on all factors considered, desalination was Council's preferred choice.

How does desalination work?

Desalination produces drinking water by removing dissolved salts and other impurities from sea water. Miriam Vale Shire Council's desalination plant will use reverse osmosis (see *What is desalination?* Fact Sheet)

Does anyone else use desalination?

There are at least 20 desalination plants in operation in Queensland. Ten of these are seawater desalination plants, including five in the Torres Strait Islands and one on Hamilton Island. Desalination plants are currently planned for the Gold Coast, Sydney and Perth. The Middle East is still the largest user of desalination, and seawater desalination plants of capacity over 300 ML/d are being constructed there. There is increasing use in Europe in countries such as Spain, and in North America with plants of over 100ML/d capacity in the Caribbean.

What are the advantages of desalination?

Desalination will provide a safe, reliable supply of water for the growing community. Desalination offers the following advantages:

- lowest whole of lifecycle cost;
- most robust and reliable water supply source; and
- equivalent greenhouse emissions to the pipeline option.

What will be the cost?

The first stage of the desalination project will cost \$20m with the cost of the ultimate plant being \$54m.

How will this be funded?

The Queensland Government has substantially funded the project. Funding has been provided under the

Queensland Government's Smaller Communities Assistance Program and the Water and Sewerage Program.

Where will the plant be constructed?

The desalination construction will be situated behind Chinaman's Beach, within an existing water holding trench. The pipes will run underground all the way to the ocean outflow. Over the land, construction will involve digging trenches. The outlet will be situated 800 metres off shore, with the inlet 600 metres off shore. Computer modelling has shown that waste water will not be redrawn.

Will indigenous sites be impacted?

Council will work with the local cultural heritage team to manage any impacts to the site.

How will the project be built?

The project will be built and managed by the private sector. Miriam Vale Shire Council has advertised for Expressions of Interest to build, own and operate new treatment plants. A preferred tenderer is expected to be decided by the end of this year.

Do I have to connect to the water system?

The desalination plant will provide a reliable source of water to all residents in Agnes Water and Seventeen Seventy. Council will provide water infrastructure to the property boundary however, it will be a property owner's responsibility to connect the scheme to the house.

What will be the cost?

Costs will need to be negotiated with a plumber or the contractor installing the mains in the road reserve.

Will my rates rise?

Miriam Vale Shire Council is not planning on increasing rates as a result of the desalination plant. Any rate rise would be part of the usual CPI increase.

**For further information contact:
(07) 4974 6222**

