



PUBLIC WORKS COMMITTEE

Inquiry Information Paper

SOUTH EAST QUEENSLAND (GOLD COAST) DESALINATION PROJECT

BACKGROUND

The Queensland Parliamentary Public Works Committee has decided to examine the South East Queensland (Gold Coast) Desalination Project.

The committee is calling for written submissions from interested persons and organisations to be sent by Friday, 27 June 2008 to:

The Research Director
Public Works Committee
Parliament House
George Street
Brisbane QLD 4000

This paper has been produced to provide information to interested persons and organisations on the inquiry, the project, the committee, and how to make a submission.

THE PUBLIC WORKS COMMITTEE

The Public Works Committee is an all-party committee of the Queensland Parliament. The committee is established under the *Parliament of Queensland Act 2001*, which gives the committee its powers and functions.

The committee's areas of responsibility under the Act are to examine and report on (a) public works undertaken by a constructing authority for the work if the committee decides to consider the work, and (b) any major Government Owned Corporation (GOC) work if the committee decides to consider the work.

The committee endeavours to ensure that Queenslanders receive value from the government's capital works program. To this end it routinely conducts inquiries into a range of projects throughout the state at different stages from inception to post completion, of various costs and in all portfolio areas.

The Act gives the committee certain powers to ensure it can fulfil its responsibilities. These include the power to call for persons, documents and other things and powers dealing with entry to and inspection of a public work.

The committee is not part of the formal project approval process and it is not involved in the tendering process or the awarding of contracts. Inquiries on these matters should be directed to the constructing authority or GOC.

TERMS OF REFERENCE

The terms of reference for the inquiry are to examine the South East Queensland (Gold Coast) Desalination Project and report to the Parliament on:

- a) the purpose of the work
- b) the necessity for, and the advisability of, the work
- c) the suitability of the work for its purpose
- d) the cost, recurrent costs, revenue and value for money of the work
- e) the impact of the work on the community, economy and environment
- f) procurement methods for the work
- g) the balance of public and private sector involvement in the work
- h) the performance of the constructing authority and the consultants and contractors for the work

THE PROJECT

Cost: \$1.122 billion

Location: Tugun, Gold Coast

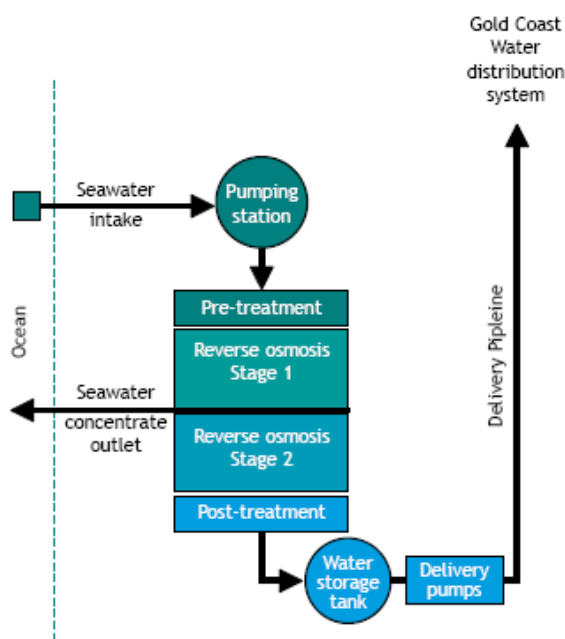
Project Description:

The South East Queensland (Gold Coast) Desalination project is a Project Alliance for the delivery of a seawater reverse osmosis desalination facility on the Gold Coast and associated raw water delivery, saline water release and potable (drinking) water delivery systems. The plant will be located at Tugun on a 6 hectare former landfill site adjacent to the Gold Coast Airport. When fully operational the facility will supply 125 mega-litres a day of pure drinking water to South East Queensland (SEQ).

Water will be drawn through a gravity fed riser, 1.4 kilometres out to sea and delivered to the desalination plant by a 3.4 metre wide, 70 metre deep intake tunnel. The water will be pre-treated in settlement tanks and then passed through a series of reverse osmosis filters to remove dissolved salts and other minerals. Following further treatment, the water will be delivered to the new SEQ Water Grid via a pipeline currently under construction.

The unused seawater (about 50%), containing dissolved salts and minerals, will be returned to the ocean via an outlet tunnel, 1.2 kilometres out to sea and dispersed in water approximately 20 metres deep. The salty water will be released under pressure through a 1 metre diameter pipeline containing 8 diffuser heads. Slightly heavier than seawater, the salty water will spray upwards for about 6 metres and disperse as it falls and mixes with the surrounding seawater over an area of about 120 metres by 220 metres.

Figure 1: Sea Water Reverse Osmosis Desalination Process



Project Scope

The project scope includes:

- finalising site selection investigations and determining a preferred desalination plant site and scheme arrangement, including the location and configuration of the associated infrastructure and development of the augmentation strategy;
- undertaking all necessary environmental investigations and obtaining environmental, planning and development approval;
- undertaking all necessary community and stakeholder consultation and communication;
- preparing a Concept Design of the desalination scheme;
- obtaining all other approvals necessary for the construction and operation of the scheme;
- designing, constructing and commissioning the desalination plant and associated infrastructure components including the pipeline connecting into the Water Grid; and
- operating and maintaining the desalination plant and associated infrastructure (including asset renewal and replacement) for the Operation & Maintenance Term of ten years (plus a five year option).

Project Delivery

The South East Queensland (Gold Coast) Desalination Project is a joint initiative between the Queensland State Government and Gold Coast City Council.

A special purpose company, South East Queensland (Gold Coast) Desalination Company P/L (trading as 'SureSmartWater') was established in November 2006 to deliver the project on behalf of its equal partnership owners, the Queensland Government and Gold Coast City Council.

The state government is currently in discussion with Gold Coast City Council to purchase its shares in

SureSmartWater to provide for full state ownership of the company.¹

The project is being delivered by the GCD Alliance, made up of John Holland, Veolia Water, Sinclair Knight Merz and Cardno, in partnership with SureSmartWater.

The Queensland Government's Department of Infrastructure and Planning is coordinating delivery of the SEQ Water Grid.

Project Approvals

As the project is a water treatment facility, it is exempt from Development Approval (DA) under the Gold Coast City Council town planning scheme, however all other approvals under the Integrated Planning Act (IPA) were required.

The project was referred to the Commonwealth Department of Environment and Heritage (DEH) for status under the *Environmental Protection and Biodiversity Conservation Act*. The project was also the subject of regulations passed under the *State Water Act* and the *State Development and Public Works Organisation Act* and was referred to the Environmental Protection Agency (EPA) for assessment under the *Environmental Protection Act and Integrated Planning Act*.

Approvals under these Acts have not triggered the need for an Environmental Impact Statement (EIS); however environmental investigations were necessary to meet other Queensland legislative requirements.

A copy of the GCD Alliance report prepared to support the application for approval to the EPA is available online at:

http://www.goldcoastwater.qld.gov.au/t_gcw.asp?pid=6541

This report discusses the following environmental elements:

- Land use
- Topography, geology and soils
- Air quality
- Noise and vibration
- Groundwater
- Acid sulfate soils
- Traffic
- Marine environment
- Contaminated land
- Terrestrial ecology
- Greenhouse gas
- Cultural heritage
- Visual amenity
- Sustainability

In addition to these reviews, GCD Alliance has completed construction and operational management plans to guide the development at all levels of the project.

¹ This is being pursued in light of the regional significance of the project to the wider South East Queensland region as a drought contingency measure. The acquisition by the state government is also in line with the recent decision to progress institutional reform of water infrastructure asset ownership, with ownership of key infrastructure to be transferred from Councils to state-owned entities.

Further information

Further information on the project is available on the following internet pages:

- <http://www.desalinfo.com.au>
- <http://watergrid.infrastructure.qld.gov.au>

Project timeframes

Milestone	Date
TOC completion	Sep 2006
TOC approval	Nov 2006
Commencement of performance trials with production of potable water at 33% capacity	Nov 2008
Production of water at 100% capacity	Jan 2009

Project Context

The SEQ region is Australia’s fastest growing region, and is home to approximately 2.7 million people or 80% of Queensland’s population. The region has experienced an average annual growth of 55,000 new residents over the past two decades. Based on this level of growth, it is expected that the region’s population will continue to grow to around 4 million people by 2026, and 5 million by 2051. The population of the Gold Coast region is predicted to more than double by 2056.

This population growth presents a number of challenges, including the provision of reliable and adequate water supplies for future populations and associated economic activities.

In response to the projected population growth, and prevailing drought conditions, both the State Government and Gold Coast City Council (Gold Coast Water) conducted numerous water supply investigations, over a period approaching two decades. These investigations have lead to the preparation of a number of water supply strategies.

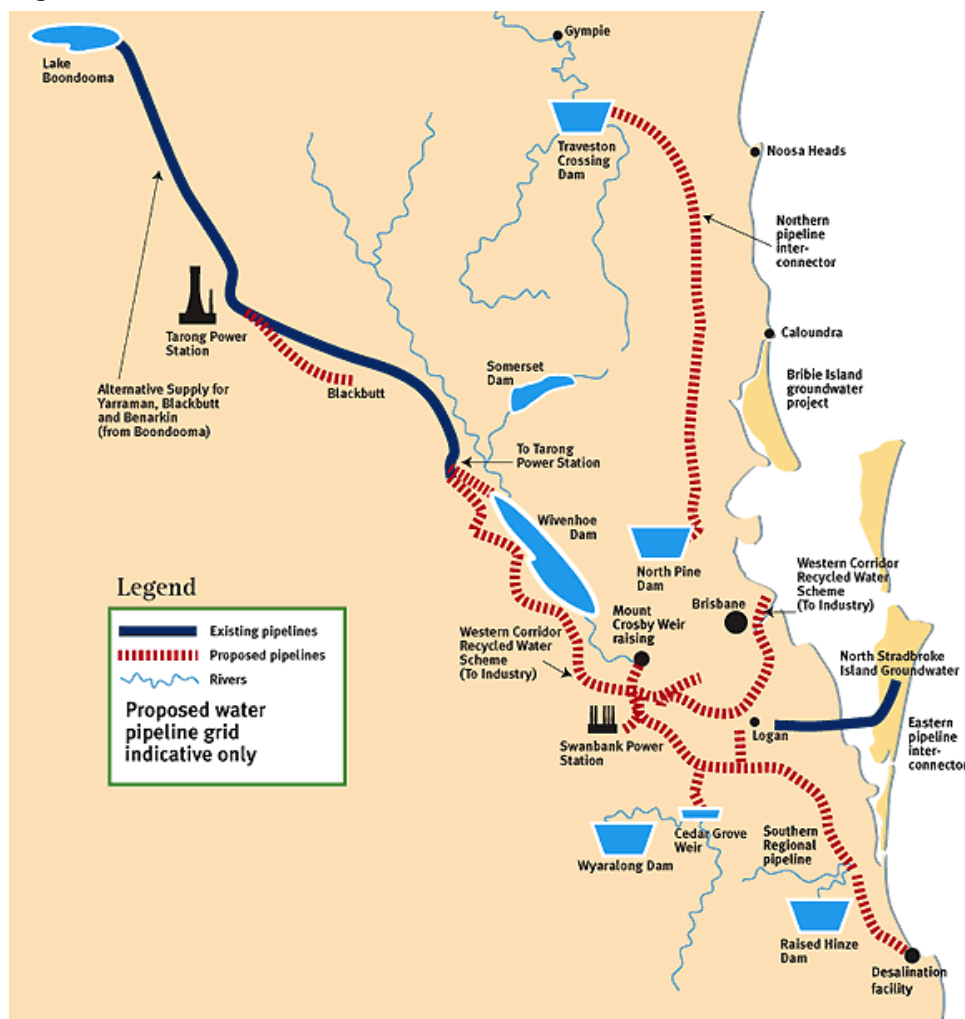
The South East Queensland (Gold Coast) Desalination project is part of the State Government’s \$9 billion SEQ Water Grid, Gold Coast City Council’s Waterfutures Strategy and the State Government’s South East Queensland Regional Drought Strategy Contingency Supply Plan.

In addition to the desalination plant, the grid comprises:

- around 450 kilometres of pipeline
- three advanced wastewater treatment plants
- two new dams
- works on several other water storage projects

The grid is shown in Figure 2 below.

Figure 2: South East Queensland Water Grid



GUIDELINES FOR MAKING A SUBMISSION

By asking for public submissions the committee provides an opportunity for interest groups, private citizens and others to contribute to an important review and evaluation process. Submissions can add greatly to the knowledge the committee has about a project. Often the public is aware of specific issues and impacts of which the committee is unaware. Public participation is an important and necessary ingredient in the committee's investigations and is an opportunity for the public to see, and take part in, the operation of Parliament.

Form

While there is no prescribed form for written submissions to a committee it is helpful to structure your submission using the inquiry terms of reference.

The best submissions are to the point, supported by evidence and use plain english.

The committee will only consider written submissions. Typed or printed text is preferable, though legible hand-written submissions are acceptable.

All submissions must include (i) the name, (ii) a postal address and (iii) a daytime contact telephone number of the person who makes the submission.

Number the pages and, if the submission is over twenty pages long, provide a brief summary at the front and include a table of contents.

Relevance

The submission must be relevant to the inquiry; otherwise the committee may not accept it. The committee will inform you of its decision to accept your submission or otherwise.

Confidential submissions

The committee will not consider anonymous submissions though it may direct that a submission be treated confidentially. The Public Works Committee attempts to run its inquiries in the most open way possible. However, if you believe that your submission (or part of it) should not be made public clearly write 'confidential' on each page and, in a brief covering letter explain why your submission should be treated confidentially.

Lodgement of submissions

Please send your submission to:

The Research Director
Public Works Committee
Parliament House
George Street
Brisbane QLD 4000

SUBMISSIONS CLOSE ON FRIDAY, 27 JUNE 2008

Extensions to the closing date may be given. If you need more time to make a submission contact the committee secretariat. Do not assume that a late submission will be accepted.

Unauthorised release

Once the committee receives a submission it becomes the property of the committee and must not be published or released without its permission.

Publishing a submission without the committee's authorisation may be contempt of Parliament and the submission will not be protected by Parliamentary privilege.

The committee may table submissions in the Legislative Assembly or otherwise publish them.

Further information

Contact the committee secretariat on:

- Phone: (07) 3406 7689
- Fax: (07) 3210 0128
- Email: pwc@parliament.qld.gov.au

This paper and other Public Works Committee publications are on the committee's Internet site at:

<http://www.parliament.qld.gov.au/committees/>

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