

# SOUTH EAST QUEENSLAND REGIONAL WATER SUPPLY STRATEGY



securing the future of  
South East Queensland's  
water supply

[www.seqwaterstrategy.qld.gov.au](http://www.seqwaterstrategy.qld.gov.au)

## SEQRWSS CONSULTATIVE WORKSHOP REPORT 2

March 2006  
Number 2

### IN THIS ISSUE

• <b>Workshop 2: Overview</b>	1
• Figure 1: WSAA Sustainability Assessment Framework	2
• <b>Workshop 2 Outcomes</b>	4
• Table 1: Questionnaire Results	5
• <b>Aims of Next Workshop</b>	7
• <b>Next Workshop</b>	7

### WORKSHOP 2: Demand Management

Twenty people each representing a different stakeholder group attended this workshop in Brisbane. The workshop had a number of aims:

- report back on issues raised in the first workshop
- present information about demand management
- enable participants discuss issues relating to demand management
- provide the Strategy team with information about the participants views on this issue.

The workshop was broken into two sections.

#### Section 1

The first section of the workshop was concerned with responding to issues and questions raised at the workshop in December 2005.

At the first workshop participants expressed an interest in:

- whether the Strategy was seeking to benchmark water consumption against international best practice
- how the Strategy was going to reconcile and balance social, environmental and economic concerns and criteria.

## Benchmarking

Mark Carden (Project Manager) explained that it was very difficult to benchmark water consumption in SEQ with areas overseas.

The challenge associated with benchmarking is that by and large published statistics on water consumption are incomparable over time, or too inaccurate to permit meaningful comparisons. Also water consumption/use appears to be dependent on a range of location-specific factors:

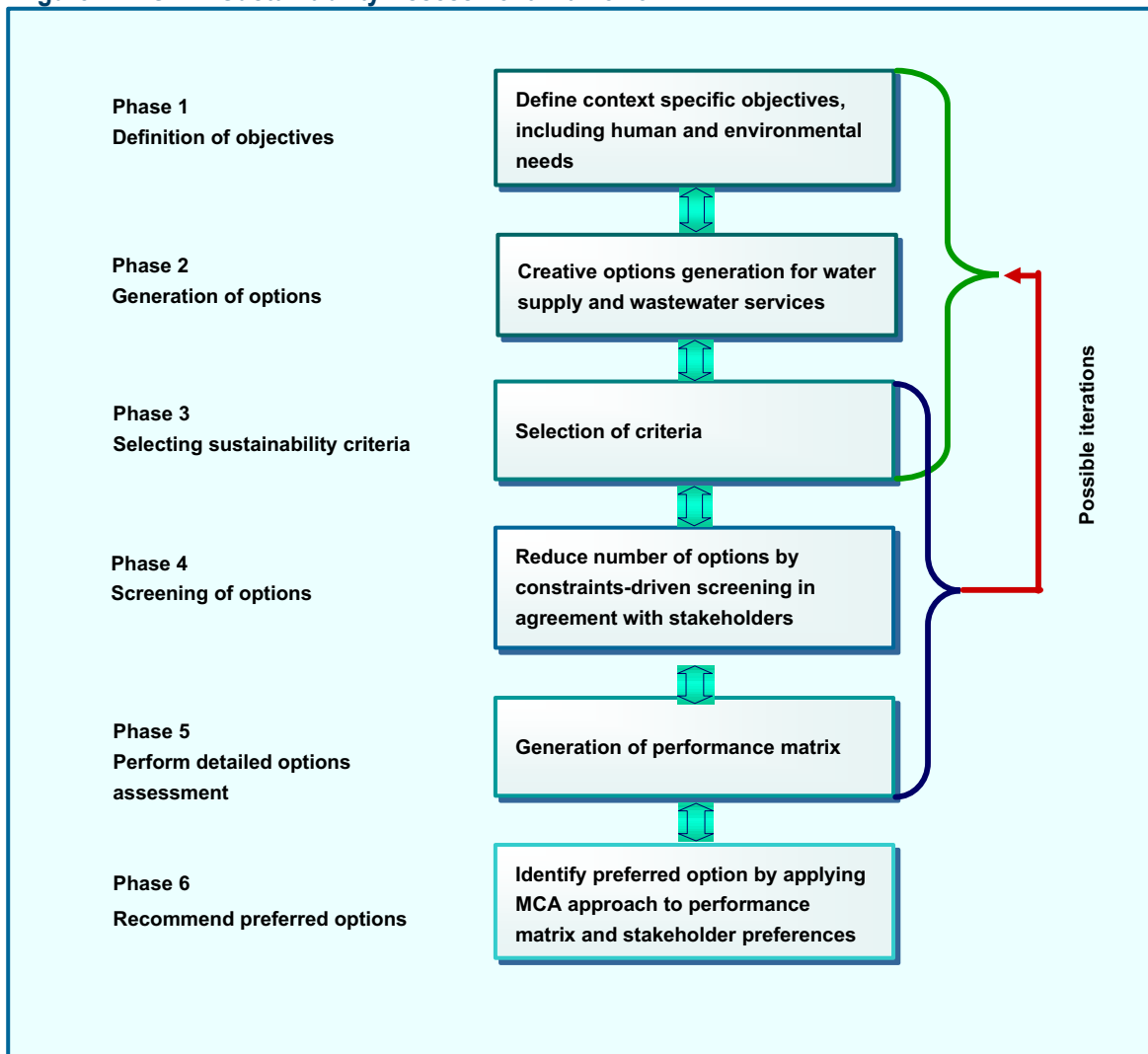
- climate
- urban form
- demography

- income
- age and range of appliances installed
- regional economic structure.

Such location-specific factors also impact on the value of the data published in Australia (eg WSAA\* Facts) for benchmarking SEQ against other Australian regions.

For these reasons the SEQRWSS is developing an SEQ water accounting and reporting system: if we can't benchmark with other regions overseas or in Australia, then local governments can at least benchmark with each other in SEQ.

**Figure 1: WSAA\* Sustainability Assessment Framework**



Source: Lundie, S., Ashbolt, N., Livingston, D., Lai, E., Kärman, E., Blaikie, J., and Anderson, J. (2005), *Sustainability Framework: Methodology for Evaluating the Overall Sustainability of Urban Water Systems*, Centre for Water and Waste Technology, School of Civil Engineering, University of New South Wales, Kensington, NSW.

\* Water Services Association of Australia

## Triple Bottom Line Assessment

Ian Pullar (Strategy Technical Manager) provided an overview of the Triple Bottom Line (TBL) assessment processes currently being used by the Strategy. He explained that the Strategy is utilising best practice multi-criteria assessment (MCA) methods and techniques.

He explained that the Strategy has adopted an approach consistent with the WSAA Sustainability Assessment Framework for evaluating the overall sustainability of urban water systems. This framework is summarised in Figure 1 on page 2.

He presented an overview of the existing suite of criteria for screening out options that are likely to be socially, environmentally or economically unacceptable. This generated considerable discussion.

He also explained that *MCA is an art not a science*.

The field of MCA has grown in size and complexity in the last 25 years. A large number of techniques have been created, and are used overseas.

A challenge facing the Strategy will be determining which techniques and criteria to use.

A good source of information on MCA is a manual on the subject developed by the Office of the Deputy Prime Minister of the United Kingdom. This manual is available at the following website: [www.odpm.gov.uk/index.asp?id=1142251](http://www.odpm.gov.uk/index.asp?id=1142251)

This manual provides practical guidance on the application of MCA techniques, in non-technical language. It is designed to help non-specialists gain an overview of the advantages offered by MCA, and what its requirements may be in terms of resources for undertaking appraisals. The manual also has more detailed appendices on various MCA techniques.

## Section 2

In the second phase of the workshop, information regarding a major project of the Strategy was presented by:

- Mr Kirk Stinchcombe — Gold Coast Water
- Shane O'Brien — MWH Australia Ltd.

The aims of their project are:

- to develop a standard methodology for assessing and characterising water consumption in all local government areas
- using this method to determine water consumption levels in each local government area
- based on these levels estimate how much water consumption can be reduced by demand management policies and practices, and the costs of achieving these reductions.

They explained that:

- at the regional level their work roughly agrees with the initial estimates of water consumption developed in Stage 1 of the Strategy
- there are differences at the local government level between their work and estimates developed in Stage 1.

Preliminary results of this project also indicate that:

- there is wide variation in water use across the region and across sectors
- depending on the local government area per capita water consumption is rising or stationary.

They explained that all studies regarding water consumption patterns indicate that water demand is dependent on a range of factors including:

- climate
- number of residents per household—the fewer people in each residence the higher the per capita water usage)
- income—the higher the income the higher per capita water usage
- the range and age of appliances installed
- design and age of suburbs
- the range and type of industries in an area.

There is no reason to suspect SEQ will be any different from other areas. Consequently, given the likely economic and demographic changes in SEQ over the foreseeable future, it is probable that there will be an underlying upward pressure on per capita demand for water in the region. If this turns out to be true, then over time this upward pressure will tend to erode savings from demand management measures.

## THE WORKSHOP'S OUTCOMES

The workshop contained two linked activities.

First, participants were asked to complete a questionnaire regarding their views about policies on demand management. A summary of the results of the questionnaire is in Table 1.

Second, participants were asked to break into small groups and consider a number of demand management related policy questions:

1. Should we have permanent watering restrictions? If so, how aggressive should we be in setting levels and enforcing them?
2. Who should deliver and enforce demand management programs?
3. Should water conservation be voluntary or mandatory? To what extent?
4. Who should bear the cost of demand management?
5. How fast should implementation be scheduled (rapid or paced)?

Each group was asked to attempt to come to a "consensus view", and record the robustness of the consensus reached in terms of the following 5 point scale:

1. we have great support for the decision = consensus reached
2. the decision is not perfect but acceptable = consensus reached
3. some have strong concerns; but they can live with the majority's decision = consensus reached
4. members have strong reservations; but won't block the choice = consensus reached
5. individuals in the group must oppose the majority's choice = no consensus reached .

Most groups were able to reach some level of consensus on most questions. However, participants were unable to reach consensus regarding questions 1 and 5.

**Question 1**, no consensus was reached. From the comments recorded there appear to be three reasons for the lack of agreement:

- more information was required
- if there are permanent restrictions, then there is no demand to cut back in drought times
- people felt that freedoms should only be removed in exceptional times, not when it is not essential to do so.

**Question 2**, the consensus view appears to be that State and Commonwealth governments should deliver and enforce demand management programs to ensure:

- clarity in messages
- consistency in approaches, delivery and legislation

**Question 3**, the consensus was that:

- in non drought times water conservation should be voluntary
- while in drought times it should be mandatory.

However, each group that considered this question stressed that water conservation should be supported through:

- pricing mechanisms
- education and community consultation, especially when conservation is mandatory as in drought times.

**Question 4**, the consensus for this was that costs should be shared and the user pays principle should be applied where appropriate. This question created significant debate among those who considered it. Of particular concern were equity issues, especially for those with low incomes.

**Question 5**, only one group that considered this question reached consensus. This group believed it was acceptable to bring in demand management rapidly, provided penalties for not complying with any mandatory requirements were brought in:

- gradually
- after extensive community consultation.

The other group that considered this question was unconvinced that demand management was going to make a significant difference to demand. They felt that they needed more information to decide whether these measures should be introduced rapidly or more slowly.

Overall there seem to be some differences between the views expressed in the questionnaire and those coming from the group discussions.

**Table 1: Questionnaire Results**

Question	Agree		Disagree		Neutral					
<b>1) Internal Water Use</b>										
there should be restrictions on internal individual water use in normal times	56%		28%		17%					
there should be restrictions on internal individual water use in drought times	83%		11%		6%					
there should never be restrictions on internal individual water use in drought times	17%		83%		0					
<b>2) restrictions on individual external water use</b>										
there should be restrictions on individual external water use in normal times	78%		6%		16%					
there should be restrictions on individual external water use in drought times	94%		6%		0					
there should never be restrictions on individual external water use	0		100%		0					
	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>
<b>3) how many years out of 10 would it be acceptable to have individual internal water restrictions</b>	25%	6%	6%	0	13%	0	0	0	0	50%
<b>4) how many years out of 10 would it be acceptable to have individual external water restrictions</b>	0	13%	0	13%	7%	0	0	0	0	67%
	<b>Agree</b>		<b>Disagree</b>		<b>Neutral</b>					
<b>5) restrictions on business water use</b>										
there should be restrictions on business water use in normal times	63%		25%		12%					
there should be restrictions on business water use in drought times	88%		0%		12%					
there should never be restrictions on business water use	0%		94%		6%					
<b>6) who should wear the cost of demand management</b>										
Federal government	70%		20%		10%					
State government	80%		10%		10%					
Local government	80%		10%		10%					
Business	70%		20%		10%					
Developers	70%		20%		10%					
Residents	70%		20%		10%					
All of the above	79%		7%		14%					

**Table 1: Questionnaire Results** continued

Question	Agree	Disagree	Neutral
<b>8) Enforcement of water use efficiency measures</b>			
water use efficiency measures should be enforced i.e. water users may get fines for not implementing water efficient measures	53%	24%	23%
water use efficiency measures should not be enforced	24%	53%	23%
<b>9) Equity in water use?</b>			
all households irrespective of number, age and income of residents should be entitled to use the same amounts of water per annum	11%	78%	11%
all households irrespective of number, age and income of residents should be entitled to pay the same amount per kilolitre for water per annum	61%	33%	6%
detached residences and units should be entitled to the same amounts of water per annum	24%	65%	11%
detached residences and units should be entitled to pay the same amount per kilolitre for water per annum	65%	18%	17%
<b>10) Sooner or later with timing?</b>			
demand management measures should be implemented and enforced immediately	60%	13%	27%
demand management measures should be introduced over a few months and enforced accordingly	53%	20%	27%
demand management measures should be introduced over a few years and enforced accordingly	40%	40%	20%
demand management measures should be introduced over the next decade and enforced accordingly	13%	73%	14%

## AIMS OF NEXT WORKSHOP

The next workshop will be broken into two main parts.

In the first part basic information about the range of bulk water supplies being investigated by the Strategy and their possible interactions will be presented. As stated many times before, the Strategy is investigating the full range of bulk supply options including:

- surface water including — dams, weirs, and stream harvesting
- groundwater
- recycled water for industrial and agricultural use
- indirect potable recycling
- desalination.

In the second part a number of hypothetical scenarios involving mixes of bulk supply options will be presented. Wherever possible each scenario will be based on actual data.

In the workshop participants will be placed in groups and asked to choose the mix of options in each scenario that they believe is the best way to supply water. These scenarios will be constructed around sub-regions. Regional level issues and considerations will form the basis of subsequent workshops.

After determining a preferred mix within each scenario, each group will then be asked to determine the criteria they used to make their choice.

We wish to run this particular exercise because we are interested in understanding:

- what choices workshop participants (which are drawn from nearly 30 professional and community groups in SEQ) would make regarding mixes of bulk supply options, and the trade-offs associated with such choices
- why workshop participants would make such choices
- the criteria that workshop participants would use to make choices.

The information obtained will be used to inform and guide the Water Balance Task Group when they formulate regional water supply scenarios and the criteria to assess them.

We will endeavour to make these scenarios closely match actual choices that may need to be considered by the Strategy.

## NEXT WORKSHOP

**Date:** Friday 7 April

**Start:** 10.00am

**Finish:** 4.00pm

**Location:** Room 1, 80 George Street, Brisbane.  
Lunch, teas, and coffee provided.