Expenditure Forecast Review for the Victorian Regional Urban Water Businesses

- SOUTH GIPPSLAND WATER
  Recommendations on Expenditure Forecasts
  FINAL REPORT
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Contents

Document history and status

Revision	Date issued	Reviewed by	Approved by	Date approved	Revision type
1	29 January 2008	Stephen Sonnenberg, Pat Little	David Lynch	29 January 2008	Draft Report
2	13 March 2008	Stephen Sonnenberg, Pat Little, David Lynch	David Lynch	14 March 2008	Final Report

Distribution of copies

Revision	Copy no	Quantity	Issued to
1	e-mail	e-mail	M Crudden
2	e-mail	e-mail	M Crudden

Printed:	31 March 2008
Last saved:	31 March 2008 04:26 PM
File name:	I:\VWES\Projects\VW04246\Deliverables\Final Report\South Gippsland\VW04246 South Gippsland Water Final Report 080303.doc
Author:	Pat Little, Stephen Sonnenberg, David Lynch
Project manager:	Steve Sonnenberg
Name of organisation:	Essential Services Commission
Name of project:	Expenditure Forecast Review for the Victorian Regional Urban Water Businesses
Name of document:	Draft Report: South Gippsland Water - Preliminary Views on Expenditure Forecasts VW04246 Draft Report
Document version:	Version 2
Project number:	VW04246

1. Introduction and Background

Sinclair Knight Merz has been engaged by the Essential Services Commission (ESC) to undertake an independent review of the expenditure forecasts provided by the following eleven Victorian regional urban water businesses as part of their Water Plan submissions for the 5 year regulatory period commencing 1 July 2008 and ending on 30 June 2013:

- Barwon Water;
- Central Highlands Water;
- Coliban Water;
- East Gippsland Water;
- Gippsland Water;
- Goulburn Valley Water;
- North East Water;
- South Gippsland Water;
- Wannon Water;
- Western Water;
- Westernport Water.

The key objectives of the reviews are to determine whether the capital and operating expenditure forecasts in the Water Plans are:

- Reasonable and prudent;
- Appropriate in relation to key drivers and obligations;
- Robust and justifiable (with adequate demonstrated supporting analysis and systems); and
- Deliverable over the 5 year regulatory period.

In undertaking these reviews, SKM's key responsibilities are to:

- Assess the appropriateness of the expenditure forecasts in relation to the key objectives of the review;
- Provide independent advice to the ESC regarding the appropriateness of the forecasts; and
- Where SKM's advice indicates that a proposed expenditure level is not appropriate, propose to the ESC a revised expenditure level.

The key outputs to be provided to the ESC in relation to these reviews are:

- Issues papers: 23 November 2007;
- Draft Reports (one report for each water business): 31 January 2008; and
- Final Report: 5 March 2008,

[or other date agreed with the ESC].

A draft report, presenting the review team's preliminary views on the proposed expenditure forecasts and the further work undertaken to clarify the issues identified in the Issues Paper, was submitted to the ESC for the various businesses between late January and mid February 2008. The Draft Report, including preliminary recommendations, was made available to the relevant regional urban water business for its review and feedback. South Gippsland Water provided a written response and a further meeting and discussions with the business were undertaken to clarify any remaining issues, to ensure any factual errors or misinterpretations were corrected and to help the review team formulate its final recommendations.

This Final Report, which constitutes the third key output of this review, presents final recommendations on adjustments to be made to the operating and capital expenditure forecasts from the review.

1.1 Report Outline

The following layout has been adopted for this Draft Report:

- **Section 2** briefly describes the approach taken for the expenditure forecast review;
- **Section 3** discusses the key general issues that arose, common to many if not all of the water businesses, that provided a key focus for further more detailed review;
- **Section 4** provides background on the process used by the review team to form its view on the expenditure forecasts and identifies some of the key issues faced by the water business driving expenditure during the second regulatory period;
- **Sections 5 and 6** respectively address the issues identified for South Gippsland Water's capital and operational expenditure forecasts, and contain recommendations as to adjustments to be made to the forecasts and capital contributions, as appropriate.

2. Approach to the Review

2.1 Assessment of Operating Expenditure

The key item in assessing operating expenditure is the evaluation of the additional operating costs relative to actual operating costs incurred in 2006/07. These additional costs were assessed and changes recommended in order to achieve a productivity improvement during the second regulatory period. This is discussed in **Section 2.1.1** below.

2.1.1 Evaluating Productivity Improvement

The ESC has recommended that a productivity gain of 1% per annum, growth adjusted, should be assumed. In instances where the forecast level of the OPEX that is controllable by the business does not exhibit the desired level of productivity gain and/or there are increases above the assumed productivity, clarifying explanations for this will be sought.

The procedure proposed to test the increase above appropriately growth adjusted Business As Usual (BAU) operating expenditure is as follows. For each year of the regulatory period:

1) Establish a **Growth Adjusted Target BAU Opex** (BAU refer below for it's determination),
2) Compare the water business' **Forecast Gross Opex** for that year (as identified in its Water Plan) with the Growth Adjusted Target BAU Opex;
3) Establish the **"Variance from Growth Adjusted Target BAU Opex**" [Item (2) less Item (1) above]; and,
4) If the "Variance from Growth Adjusted Target BAU Opex" is positive (i.e. the Growth Adjusted Target BAU Opex is less than the Forecast Gross Opex), seek an explanation of the activities and the related expenditure comprising this difference.

The Variance from Growth Adjusted Target BAU Opex is a starting point for discussions and SKM will be considering the make-up of the positive variances and the justification and reasonableness of them with the water business. There will potentially be a variety of explanations.

Further elaboration of this proposed procedure and determination of the above parameters is provided below:

- The **Growth Adjusted Target BAU Opex** (BAU = business as usual) for a particular year will be determined by taking the actual gross operating expenditure for the business for the most recently audited full year's operation (i.e. Actual Gross Opex in 2006/07), subtracting the expenditure for licence fees, purchases of bulk water and the environmental levy, adjusting the remaining expenditure upwards in proportion to the growth in customer numbers that has

occurred since 2006/07 and then reducing this amount by the ESC's stipulated minimum productivity gain of 1% p.a. year on year.

Thus the formula applied to establish the Growth Adjusted Target BAU Opex is:

- $A = B *(C_{(year\ n)} / C_{(year\ 2006/07)}) * (1-0.01)^{(year\ n\ -2006)}$ **Equation 1**

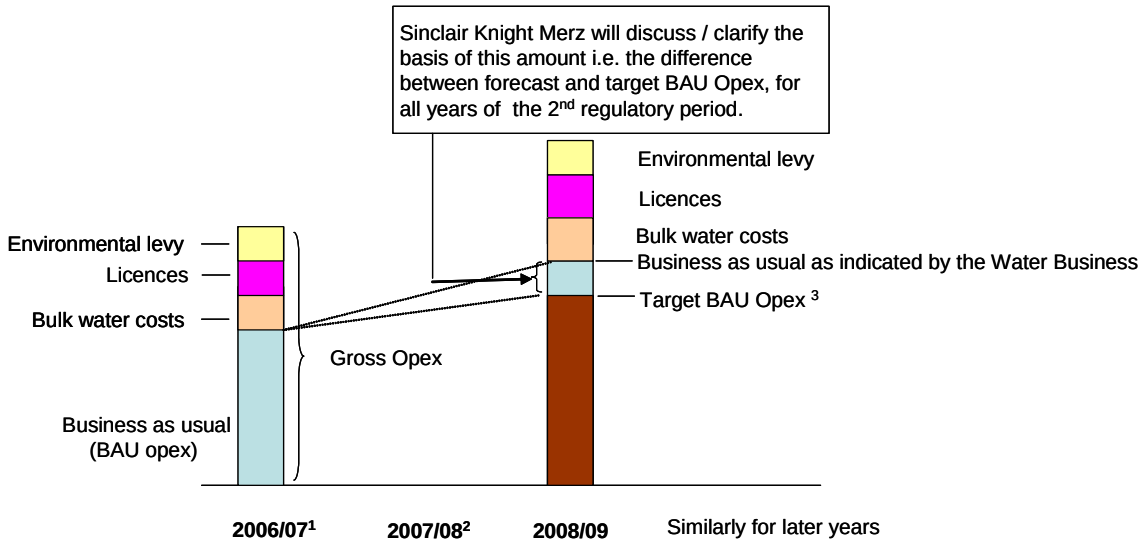
Where **A** is the Growth Adjusted Target BAU OPEX for year n;

B is the actual audited Gross Opex in year 2006/07 excluding costs for licence fees, environmental levy and water purchases.

C is the number of water supply customers (for the year indicated).

This is illustrated schematically in **Figure 1** below.

- **Figure 1: Illustration of Growth Adjusted Target BAU Opex**



Notes:

1. 2006/07 was selected by the ESC as the base year because this is most recent year for which recorded data is available.
2. 2007/08 is outside the 2nd regulatory period and will not be assessed in detail.
3. Target BAU Opex is estimated from BAU Opex in 2006/07 allowing for growth in customer numbers and productivity gains of 1% per annum (cumulative).

2.1.2 Issues which the ESC will resolve

The ESC will review and resolve the amounts to be budgeted for Licence fees, Environmental Levy, and the tariffs applicable to bulk water purchases (if any). These issues thus fall outside the scope of SKM's review.

It should be noted however that the forecast volumes of bulk water purchases fall within the scope of the SKM review. In so far as the assessment of bulk water purchases and the related expenditure impacts on South Gipsland Water's expenditure forecasts the review team has relied on the outcomes of the preliminary review of the demand forecasts undertaken by PWC.

2.1.3 Water Demand Forecasts

Information on the review of the demand forecasts undertaken by PWC for the ESC was made available to the SKM review team and was considered at least to the extent that the outcomes of that review were consistent with the demand forecasts influencing this expenditure review.

2.2 Assessment of Capital Expenditure

The process for reviewing capital expenditure forecasts is summarised below:

- A number of projects were selected, on a sample basis, but including any projects comprising a significant proportion of the total forecast capital expenditure;
- The selected projects were reviewed to confirm that the following criteria would be met:
  - **Appropriate in relation to key drivers and obligations** - with evidence provided of such drivers and in accordance with the Statement of Obligations that sets outs the responsibilities of each of the Water Business;
  - **Robust (with adequate demonstrated supporting analysis and systems)** - as may be demonstrated by a report which clearly enunciates the problem faced by the water business, and sets out the analysis undertaken of the options to resolve that problem and identifies the preferred solution. Evidence may also be sought to demonstrate that the preferred solution falls with in the overall strategy adopted by the water business.
  - **Deliverable over the 5 year regulatory period**. Usually evidenced by a Gantt chart, or similar detailed program, demonstrating that the key activities comprising the delivery of the project from planning to construction have been identified and thought through, and assigned an appropriate sequence and duration.
  - **Reasonable Cost Estimate**. The cost estimate is well supported either by a schedule of quantities using typical rates currently being experienced in the industry, or compare favourably with other similar projects or preferably both of the above.

3. General Issues

3.1 Issues Identified for Capital Expenditure

3.1.1 Pressure on Resource Availability

Expenditure on capital works in the Victorian water industry, based on data provided by all (metropolitan and regional) the water businesses in Victoria is expected to increase dramatically as shown in **Table 3-1.**

- **Table 3-1: Historical and Forecast Total Capital Expenditure in the Victorian Water Industry**

	1st regulatory period			2nd regulatory period			
Year	**2006/07**	**2007/08**	**2008/09**	**2009/10**	**2010/11**	**2011/12**	**2012/13**
Expenditure ($M / year)	950	1,680	2,800	3,220	2,150	1,000	820

The aggregate capital expenditure levels for the Victorian water industry are forecast to increase steeply from current capital expenditure levels in the first three years of the second regulatory period and then decrease but remain high for the final two years of the regulatory period. This is expected to place great pressure on available resources - in the water businesses themselves, the consulting sector and the contractors, especially in the first three years of the second regulatory period (RP2). Although this pressure may be mitigated somewhat as some of the large projects, such as the proposed Sugarloaf Pipeline for Melbourne, may not consume such large amounts of resources as the costs of those projects alone may indicate, the pressure is nevertheless expected to be severe. Furthermore, it will be exacerbated by high to very high workload levels in other infrastructure areas such as transport and in the mining sector. A positive aspect is the constructor resources coming off some of the big road projects currently nearing completion (e.g. Eastlink).

The limitations on pipeline supply, particularly steel pipeline, is a particular constraint facing the industry at present requiring businesses to place orders early or face price premiums for accelerated delivery.

In considering project deliverability and in reviewing the expenditure forecasts therefore the review team has considered the urgency of projects whose expenditure is forecast for the first three years of the second regulatory period and in some cases spread this expenditure and/or reassigned the expenditure to later years.

3.2 Issues identified in relation to Opex forecasts

The preliminary reviews of the Water Plans and the operational expenditure forecasts focussed particularly on items brought forward by the businesses to explain the Variance from Target BAU Opex. Effectively this comprised a list of activities where the costs are for new obligations, operating new infrastructure or increased costs for existing activities. In this way the major issues for each business were identified and formed the basis of the reviews producing the outcomes as outlined in **Section 6** of this report. In addition the following key issues were identified that required consideration in relation to some or all of the businesses.

3.2.1 Energy (Electricity)

3.2.1.1 Overview

Most water businesses have proposed **additional energy costs** throughout the regulatory period as a factor contributing to the explanation of the variance in BAU Opex. The following considers some of the issues relevant to this increased expenditure.

For a number of businesses, the current energy contracts with electricity suppliers were due to expire and be renewed with effect from around July 2008. In most cases the new agreements or contracts to cover the period beyond 1 July 2008 have not been executed. Consequently new tariffs were not yet established at the time of the Water Plan submission and the expectation was that significant increases throughout the regulatory period would occur.

The cost of electricity in 2006/07 generally ranged from about 5 to 13% of the total operational expenditure for regional urban water businesses in Victoria.

The water businesses, based on broad information provided to them from various sources in mid to late 2007, have in their Water Plans submitted variously put forward real increases in electricity costs over the second regulatory period ranging from

- No or minimal provision for real electricity cost increases relative to 2006/07 excluding new demands (e.g. Goulburn Valley Water, Central Highlands Water), to
- Substantial real electricity cost increases of up to 100% relative to 2006/07 (e.g. Barwon Water, Wannon Water). Such cost increases were a combination of predominantly price effects but also demand effects and other relevant impacting assumptions.

The review team notes that prices in the electricity market (and specifically the wholesale market) have moved considerably since the submission of the Water Plans and continues to have some volatility. However it is clear that the electricity prices have fallen considerably and reconsideration by the water businesses of this issue is appropriate.

The review team also notes that the current electricity contracts were for a three period and the negotiations for these were undertaken in circa early 2005 with effective operation from 1 July 2005. The base year of 2006/07 sits in the middle of the contract period.

In response to the Draft Report most businesses took further advice on the potential real increases in electricity costs. Notably, following provision of the Draft Reports to the respective water businesses, North East Water and Central Highlands Water provided the review team with copies of advice they had received from independent specialists in this area (Key Energy & Resources and Marsden Jacobs respectively). One business is well advanced in obtaining firm electricity prices for the next three years.

Based on circumstances prevailing at late February early March, this advice generally proposed that a likely outcome on real electricity prices (and therefore costs) over the regulatory period would be a flat increase of some 19 to 24 % overall (with the wholesale cost component being the primary influencer of this). [NB: It needs to be confirmed that there are no nominal (versus real) effects to be resolved.]

In summary, and as detailed in the rest of this section, the review team considered that these views took a slightly "pessimistic" or cautious view of the likely outcomes of electricity price increases to be negotiated by the water businesses before 30 June 2008. The methodology used by these advisers is broadly consistent with the strategic overview approach adopted by the review team in assessing likely electricity price outcomes.

The review team has concluded and recommends that the following increases in electricity energy prices should be adopted for regulatory expenditure purposes:

- 2008/09 12% (*relative to costs incurred in the base year, 2006/07)*
- 2009/10 onwards 15% (*relative to costs incurred in the base year, 2006/07).*

The review team notes the differences of views that the water businesses have on real electricity price increases (and their cost impacts). As is natural the water businesses have been cautious from a business management viewpoint in formulating their positions and it is expected that this would be moderated when viewed from a regulatory pricing position and the extent to which such costs should be incorporated into a reset regulatory "BAU" expenditure base. These differences will only be resolved when the water businesses enter into and conclude their respective negotiations with electricity providers. The review team notes that most businesses intend to adopt a similar approach as for the current contracts and use the Strategic Purchasing Unit to negotiate prices.

The review team recommends that the ESC revisit this issue following release of its Draft Pricing Determination and in moving to its final determination. This is prudent because this decision (given its significant impacts) needs to be made with the best and contemporaneous information

when making its final determination and the water businesses should be well advanced in its negotiations for new electricity contracts that all will need to be entered into before 30 June 2008.

The review team has formed its views on real electricity price increases (underpinning cost impacts) using the approach described in the remainder of this section.

3.2.1.2 Proposed Increase in Energy Tariffs:

The components of the delivered cost of electricity (which are separated into peak and off-peak components for larger users) are:

- Wholesale forward price
- Profile cost (represents the extent to which the actual load shape is correlated to the NEM pool price over a day/week/month etc)
- Losses adjustment (for transmission losses (MLF) and distribution losses (DLF))
- Transmission Use Of System costs (TUOS)
- Distribution Use of System Costs (DUOS)
- NEMMCO (National Electricity Market Management Company) fees
- Ancillary services charges
- MRET (mandatory renewable energy target) costs
- VRET (Victorian renewable energy target) costs
- Retailer's margin.

The *transmission cost* and the *distribution cost* are the other major components of the delivered cost of electricity, and together with the *wholesale forward price* make up between **80 to 90 %** of the total energy price.

Transmission Use of System costs **(TUOS)** and Distribution Use of System Costs **(DUOS)** are both regulated costs and represent approximately **40 to 50%** of the overall energy price. These cost components of the total energy price are generally constant (i.e. are increasing at CPI) or are declining in real terms. [NB: This is different from 'standing offer customers' where real increases in TUOS and DUOS of up to 17% have been recently experienced.]

Of the balance of the components of the total energy price:

- The retail, which are negotiable, and other costs make up approximately 5 to 13% of the total energy price.
- MRET and VRET charges were minor in 2002 but are rising to become a more significant cost element as these programs transition up to full effect.

- Many of the other charges rise consequentially because they are often determined as a percentage of the other charges (e.g. margins, losses etc).

Impacts of Carbon Trading Scheme

From sometime in 2010 to 2012 a carbon trading scheme is expected to be implemented in Australia which will have a material impact on electricity prices but that impact cannot be estimated until the design of the scheme (notably the "glide-path" for emissions reductions) is known (expected to be known in 2009 or 2010). The review team has not considered the impacts of this increase here and have assumed that any material price impacts would be reviewed by the ESC later and, if appropriate, adjustments made.

Future Price Movements (Aggregate level)

The ***wholesale forward price*** has risen considerably recently. Some of the drivers for this are seen to be the tightening of the supply/demand balance and the drought (which impacts on the ability of some generators to operate). However the futures market sees the wholesale forward price declining. The ***wholesale forward price*** is the principle variable component of the cost of electricity and currently makes up approximately **40 to 50%** of the total energy cost.

The wholesale forward price of electricity may be obtained from the Futures Market. Although prices are volatile on this market it reflects current market perceptions of the future wholesale forward price. **Table 3.2** provides a market view of wholesale forward prices for Victoria at January 2008 (Draft Report stage), adjusted to real January 2007 prices by assuming a CPI of 2.5%, and averaged to cover financial rather than calendar years. The increase with respect to 2006/07 has then been calculated.

- **Table 3-2: Victorian Electricity Futures - Wholesale Forward Price only (Draft Report Stage, January 2008)**

Calendar year	Forward unit cost for calendar year ($/MWh – real Jan 07)	Financial year starting	Forward unit cost for financial year	% REAL increase in wholesale forward price - relative to 2006/07
2006	41.89			
2007	43.13	July '06	42.51	
2008	59.54	July '07	51.34	21%
2009	45.95	July '08	52.75	24%
2010	43.52	July '09	47.73	5%

The market is anticipating that current steep prices will decline in future and this is already reflected in Queensland (see Financial Review article in Appendix A) where drought breaking rains

have occurred. There had been further movements in prices by the time of commencing preparation of the Final Report (from those at the Draft Report stage).

In forming its views the review team has been primarily informed by the information in the following:

- **Table 3-3** – which provides a view of the wholesale forward prices now (flat contract forward in nominal $/MWhr as at 4 March, the date of commencing preparation of the review team's Final Reports on the expenditure reviews) and which will provide a backdrop to the current electricity price negotiations of the water businesses; and
- **Table 3-4 –** which provides an indicative view of the wholesale forward prices in late 2004/early 2005 (flat contract forward in nominal $/MWhr) and which provided a backdrop to price negotiations at the time of entering into the current electricity contracts. [NB: The market appeared to be reasonably stable at that time.]

- **Table 3-3: Wholesale Prices - Flat Contract forward as at 4 March 2008**

Wholesale Prices - Flat Contract forward as at 4 March 2008 (in nominal $/MWhr)			
State	Calendar Year		
	2008	2009	2010
NSW	40.26	46.51	52.87
Vic	42.09	45.6	51.22
QLD	50.2	44.87	47.03
SA	69.8	60.51	50.03

- **Table 3-4: Wholesale Prices - Flat Contract Forward circa 2005 contract negotiations**

Wholesale Prices - Flat Contract Forward circa 2005 contract negotiations (in Nominal $/MWhr)				
State	Calendar Year			
	2005	2006	2007	2008
NSW	35.5	36.5	37	38
Vic	33	34	34.5	35.5
QLD	33	35	35.3	36
SA	39	41	41	42

3.2.1.3 Overall Approach:

In forming its view the review team has adopted the following overall approach:

- Establish from **Table 3-3** the "average" Victorian wholesale electricity price (flat forward contract) for the period of the current contract based on the generally prevailing market view of prices at the time of the negotiations for the current contract. This is assumed to be the average of the 2006 and 2007 calendar year prices, namely $34.3/MWhr. Fortuitously this also happens to be the base year for the current expenditure review.
- Escalate this price to current day dollars (assuming only 2.5% p.a. escalation). This yields a price for comparison with current view of 2008/09 prices of $36/MWhr.
- Compare this with the 2008/09 (average of calendar prices for 2008 and 2009 from **Table 3-4**, namely $43.9/MWhr). This yields an effective real increase in this wholesale price of 22% for 2008/09 relative to 2006/07.
- This can be repeated for other years. For 2009/10 the point of comparison is with the conversion of the average 2009 and 2010 calendar year prices de-escalated to give comparison in real terms. This yields an effective real increase in this wholesale price of 30% for 2009/10 relative to 2006/07.
- Assume that the real increase for 2009/10 (relative to 2006/07) also applies for the later years of the regulatory period.
- Input these real wholesale price increases into a spreadsheet assessment for the real overall price increases taking into account all components of the price as indicated in **Section 3.1.2** and their real movements, noting that the wholesale price component is the most volatile and represents approximately 40 to 50% of the overall price.

[NB: The real cost increases are relative to 2006/07, not year on year cumulative. Choosing other states and/or a mix of states may give rise to a lower percentage increase, noting that this is a national market. The forward prices also probably include a higher escalation factor than has been assumed by the review team].

For any water businesses demonstrating completed contracts with electricity suppliers covering the second regulatory period the forecast expenditure for energy purchases was based on the tariffs contained in that contract. The review team also understands that contracts being entered into currently appear to be for a three year period.

Recommendations: The review team recommends, based on the above approach, that the following increases in energy prices should be adopted for regulatory expenditure purposes:

- 2008/09 12% (*relative to costs incurred in the base year, 2006/07)*
- 2009/10 onwards 15% (*relative to costs incurred in the base year, 2006/07).*

In making these recommendations the review team also:

- Notes that these increases do not include changes in demands (as these are dealt with separately for the respective businesses; and they do not include any future impact of carbon trading on future prices.
- Recommends that the ESC review the real electricity price increases expected on the basis of any further and better information available during the period following release of its Draft Pricing Determination and before the final determination.

The review team has applied these real increases in electricity costs consistently across all the water businesses.

3.2.2 Green Energy

The ESC indicated in its' Water Plan Issues Paper (December 2007) that many water authorities had forecast increases in operating expenditure due to implementing greenhouse gas (GHG) management strategies. Water authorities provided a number of reasons for implementing such strategies, including EPA requirements for licensed premises, statement of obligations requirements to develop greenhouse gas reduction strategies and the results of customer consultation which indicated that customers were willing to pay for (or contribute towards) carbon neutrality.

No water authority cited any requirement that set specific targets it was compelled to achieve. Within the regulatory period, reduction targets ranged between 0 percent and 30 percent, with some large new projects such as the Goldfields Superpipe targeting GHG neutrality (as mandated by government for that project).

The review team considered that GHG targets of the businesses should typically be in the range 10 to 15% (for the assessment of expenditure for regulatory pricing purposes). This is understood to be broadly consistent with government expectations at this stage.

The EPA outlines four broad categories of carbon offsets (EPA web site) including, bio-sequestration (e.g. tree planting), energy efficiency, renewable energy and greenhouse gas avoidance, capture and destruction projects. Water authorities who propose to reduce their greenhouse gas emissions and set themselves specific targets propose to undertake a range of activities that fit into these categories. The majority of authorities are proposing to review the energy efficiency of their assets in preference to buying green energy or carbon offsets. Some water authorities propose to buy green energy and carbon offsets.

The price of green energy and carbon offsets can depend on the "quality" of the energy/offset being offered. Some carbon offsets offered by the market are not accredited and even those that are accredited can be of a different "quality". A report produced by RMIT Global Sustainability,

"Carbon Offset Providers in Australia 2007" compares products offered by 15 different carbon offset providers. The report found that there is a significant difference in price charged per tonne of offset, with tree planting focussed providers charging approximately $9 to $13 per tonne of CO_2 offset and renewable energy oriented providers charging between $20 and $40 per tonne of CO_2 offset.

The review of greenhouse gas reduction strategies considered the process that water authorities went through to set targets, strategies and budgets. Budgets which resulted in an effective price per tonne of carbon offset consistent with the RMIT report were considered reasonable.

For the purposes of this assessment the review team considers that an appropriate reasonable benchmark cost for carbon offsets is $20 per tonne of CO_2. It is acknowledged that the market is relatively immature and future prices may fluctuate.

3.2.3 Labour and staff costs

"EBA" real increases: Real increases (i.e. increases in excess of CPI) in overall employment costs were not generally considered as contributing to extraordinary growth in operational costs as they should be offset by improvements in productivity. Thus it could be argued that increased salary costs negotiated in enterprise bargaining agreements (EBA's) above CPI do not form part of the Variance to BAU Opex.

It is acknowledged that high levels of employment nationally may serve to drive up labour costs particularly in areas of skills shortage. In current conditions it is expected that professional technical specialists would be expected to command higher percentage increases than the average, while others lower.

We note the government's directive to its businesses that labour cost increases should be contained to approximately 3.25% per annum in nominal terms.

In summary, for this review labour cost increases of CPI + 1.25% were considered as reasonable. Increases above this are assumed to be absorbed in productivity offsets and not form the basis of increased operating expenditure above the Target BAU Opex. The allowance for a real increase of 1.25% p.a. (cumulative) on base labour costs was applied consistently across all water businesses.

The real labour cost increases of 1.25% p.a. (above CPI) are the only component of labour cost increases (fixed number of personnel) which are considered justifiable in terms of explaining the Variance from Target BAU Opex. The CPI increase does not represent a real cost increase and labour cost increases greater than 1.25% p.a. real are expected to have offsetting productivity gains - and neither have been passed through as justifying explanations of the Variance from Target BAU Opex.

New personnel resources: Costs for additional new operators of facilities completed after the base year (2006/07), or staff employed to meet new obligations imposed through the Statement of Obligations were however included, where appropriately justified.

Band increments: The review team notes that businesses have an obligation to pay band increments (and other) entitlements under appropriate arrangements. However in the context of this review for regulatory pricing purposes, such amounts are not an explanation of Variance from BAU. Thus in this assessment such amounts are expected to be funded from productivity improvements and/or already accommodated in the adjustment of Target BAU Opex through the growth rate adjustment and/or are already in the Base BAU Opex at a reasonable amount.

3.2.4 Labour on-costs

In addition to the direct salary costs for additional staff, and where appropriately justified, the on-costs of employment such as for superannuation contributions (9%), payroll tax (5.05%) and workers compensation (2%) and other items totalling approximately 19% were included in the costs allowed for additional staff. Overhead costs such as for accommodation were not regarded by the review team as contributing to the increased operating expenditure above the Target BAU Opex.

3.2.5 Limit of Materiality

In explaining the variance from Target BAU Opex a number of businesses included numerous items amounting to less than 0.2% of gross operating expenditure. The review team considers that such items would be part of the normal "swings and roundabouts" of variations in operating expenditure from year to year. Such costs are either not material and/or are covered by the allowance for growth (in setting the Target BAU and establishing the Variance from target BAU Opex) and/or are in the base year and/or a part of the "swings and roundabouts" of expenditure which occur from year to year where activities come and drop off.

These have generally not been considered or as justified for inclusion as part of the explanation of the Variance from Target BAU Opex over the regulatory period, unless very clearly identifiable as being related to new infrastructure or new obligations.

3.2.6 Demand forecasts

The forecast water demands submitted as part of the Water Plans have been reviewed on a preliminary basis by PWC. The impact of the preliminary review has been considered in the preparation of this Final Report (see **Section** Error! Reference source not found.).

3.2.7 Adjustments Principles

Two key principles were applied in establishing any adjustments to be made:

- Any expenditure that was clearly not accepted [e.g. any real increases in the businesses Water Plan electricity expenditure in excess of the electricity costs (price effects) greater than that determined as indicated in **Section 3.2.1**].
- The total of any adjustments should not result in an actual recommended regulatory expenditure in any year less than the Target BAU Opex. established as indicated in **Section 2**.

4. South Gippsland Water: Overview

The initial approach to the review of the Water Plan expenditure forecast for South Gippsland Water has been as follows:

- Identification of the key issues through the preliminary review of the Water Plan and associated information templates (submitted to the ESC in October 2007). Information on the key issues was summarised in a memorandum communicated by the review team to South Gippsland Water on 29 November 2007 (File Note titled "South Gippsland Water's Water Plan – Operating and Capital Expenditure Review");
- Further more detailed examination and investigation of the key issues through:
  - A meeting and discussion of the expenditure forecasts and key issues with relevant South Gippsland Water personnel on 4 December 2007.
  - Further responses and the provision of information by South Gippsland Water immediately following the meeting on 4 December 2007 and in January 2008.
  - Correspondence from South Gippsland Water sent to the ESC via email on 21 February 2008 and copied to the review team.

A further meeting was offered to South Gippsland Water, but as SGW had no variation to Target BAU Opex to explain it was not held.

The review team informed the ESC that South Gippsland Water appeared to be well prepared in general and particularly well prepared for the first meeting held on 4 December 2007 and were able to supply all the information requested by the review team immediately following the meeting. The ESC suggested that this should be noted in the review team's report.

4.1 Key Issues

Some of the key issues in relation to South Gippsland Water's expenditure forecasts are:

- The estimated average annual price increase for tariffs in South Gippsland Water's region, based inter alia on the CAPEX and OPEX forecasts submitted by South Gippsland Water is 4.29 %.
- The proposed desalination plant for Melbourne is to be constructed near Wonthaggi, a town in South Gippsland. Water from this plant will become available to South Gippsland Water, but the commercial arrangements for this are not yet known, and the arrangements and cost for accessing this potential water source have not been factored into SGW's Water Plan;
- South Gippsland Water's Water Plan does not identify any targets related to sustainability which may have been adopted such as greenhouse gases abatement, biosolids beneficial reuse, increased recycling or reductions in per capita water use.

5. Capital Expenditure (Capex)

Table 5-1 presents South Gippsland Water's forecast capital expenditure by cost driver and by asset category.

- **Table 5-1: Capital Expenditure by Driver and Asset Category (Real 1/1/07 $M)**

Expenditure in $ millions real (1/1/07)		FIRST REG PERIOD			SECOND REG PERIOD				
		2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
Capital Expenditure									
Gross capital expenditure		**14.28**	**12.33**	**11.46**	**12.07**	**10.24**	**9.86**	**8.55**	**7.18**
Gross capex - business as usual		14.28	12.33	11.46	12.07	10.24	9.86	8.55	7.18
Gross capex - new obligations					-	-	-	-	-
Approved 1st period gross capital expenditure		19.72	6.30	4.55					
Average annual 1st period capex	12.69								
Average annual 2nd period capex	9.58	Annual 2nd period capex is on average 25% lower than the 1st period							
Breakdown of business as usual gross capex									
Water headworks		14.28	6.25	2.46	3.63	0.53	2.98	4.97	3.38
Water pipelines / network		-	0.79	1.23	0.58	0.67	0.50	0.68	0.77
Water treatment		-	0.20	0.93	0.36	0.24	0.44	0.24	0.75
Water Corporate		-	0.93	0.81	0.49	0.48	0.49	0.45	0.44
Water sub-total		***14.28***	***8.17***	***5.43***	***5.05***	***1.93***	***4.41***	***6.34***	***5.35***
Sewerage pipelines / network		-	0.71	3.60	4.72	6.76	3.13	0.82	0.97
Sewage treatment		-	1.88	1.25	1.31	0.66	1.24	0.55	-
Sewerage Corporate		-	1.58	1.18	0.98	0.89	1.08	0.85	0.86
Sewerage sub-total		***-***	***4.16***	***6.03***	***7.02***	***8.31***	***5.45***	***2.21***	***1.83***
Bulk Water sub-total		-	-	-	-	-	-	-	-
Recycled water		-	-	-	-	-	-	-	-
Rural Water		-	-	-	-	-	-	-	-
Breakdown of BAU gross capex by cost driver									
Renewals					2.45	2.55	2.55	1.92	2.41
Growth					6.58	5.22	3.52	3.28	2.80
Improved service					0.45	0.22	0.28	0.24	0.53
Compliance					1.79	1.25	1.90	1.14	0.80
Government contributions					0.16	0.19	0.55	1.31	-
Customer contributions					0.64	0.81	1.06	0.67	0.64

5.1 Deliverability of the Capex Program

South Gippsland Water recognises that obtaining sufficient appropriate resources has the potential to adversely impact deliverability of its capital program (timing and cost).

SGW advises that it uses three (3) local contractors (Kevin Staley, Lindsay Woodhams and South Gippsland Quarries) for its project works and for recent projects has received good responses from them (both in terms of timing and cost). These contractors are able to deliver a range of projects, including pipe work (Lindsay Woodhams), civil works, storages, treatment plants (Kevin Staley) and earthen storages (South Gippsland Quarries). SGW has however had to go outside its local area for some projects where resources have not been available.

The review team has provided further comments regarding the deliverability of specific projects in the following sections.

The review team notes that:

- the size of the South Gippsland Water's program is well within the scope of what it has delivered previously.
- there is an increased risk of SGW not being able to deliver this program because of State wide issues, but considers on balance that South Gippsland Water's confidence in deliverability of its program is reasonable (particularly as its program has already been reasonably reduced and smoothed).

5.2 Key Projects

South Gippsland Water's Water Plan forecasts $47.89 million of capital expenditure over the regulatory period. The top two projects make up $14.35 million (approximately 30%) of this, and are listed in **Table 5-2**.

- **Table 5-2: Key Projects (Real 1/1/07 $M)**

Expenditure in $ 000's real (1/1/07)	RP1	SECOND REGULATORY PERIOD (RP2)						*% of total Capex*
	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	Total	
Capital Expenditure								
Key projects								
Poowong / Loch Nyora Sewerage Scheme	-	1,700	4,000	2,200	-	-	**7,900**	***16%***
Tarra River off-stream Storage	-	200	250	3,000	3,000	-	**6,450**	***13%***
Total	**-**	***1,900***	***4,250***	***5,200***	***3,000***	**-**	**14,350**	***30%***
% of total Capex in financial year indicated		16%	42%	53%	35%	0%		

Two further projects were reviewed (Meeniyan Sewerage Scheme and Coalition Creek Reservoir) given the top two projects only accounted for 30 percent of expenditure.

5.2.1 Poowong / Loch Nyora Sewerage Scheme

The towns of Poowong, Loch and Nyora (372 occupied dwellings) do not currently have reticulated sewerage. The sewering of these areas has been nominated by the Minister for Water in the Country Towns Sewerage Scheme and Clause 19 of South Gippsland's Statement of Obligations essentially requires it to sewer any areas nominated by the Minister.

South Gippsland Water has provided a report titled "Innovative Sewerage Services for Poowong, Loch and Nyora, Concept Design" (URS, 12 December 2007). The report summarises South Gippsland Water's investigations into various sewerage options, including gravity sewers, pressure sewers, common effluent disposal, septic tank effluent pumping and vacuum sewers. The report indicates that the preferred options are either gravity sewers or common effluent disposal. The report also considers treatment options, including a shared treatment facility connected by 15 kilometres of pipe in total or separate treatment facilities connected by 6 kilometres of pipe

(assuming a treatment plant is constructed within 2 kilometres of each town). South Gippsland Water has adopted the proposal for a shared treatment facility.

South Gippsland Water has supplied a copy of a letter from DSE regarding funding (approximately $1.98M where this was to provided in stages, was considered as a "notional" amount and subject to final DSE approval) for its small town sewerage scheme and a copy of a related Strategic Approval Statement (an internal SGW approval paper). These documents provide further evidence of the need for the project.

The cost of the scheme as detailed in the URS report was estimated to be $16.6M which is significantly more than the cost forecast in an earlier draft report and as included in the Water Plan submitted (of approximately $7.9M). South Gippsland Water is still in the process of forming a view on the reasons for the cost difference.

In its draft report the review team suggested that the timing of this project also be reviewed, based on the URS report provided and the timing of the expenditure as indicated by South Gippsland Water in a detailed break-down of its capital program. The review team understands that South Gippsland Water has not yet finalised negotiations for land required for the scheme. It is noted that this critical activity has not yet commenced (viz. commencement of formal negotiations for land acquisition). Design and construction of the project is likely to be highly dependent on land access.

In broad terms, the review team considers that despite the requirements in South Gippsland Water's Statement of Obligations this project needs further information to support it's justification and particularly it's costing. The recent cost estimate for the sewerage scheme indicated a current unit cost of approximately $34,400 per allotment and the total cost is well in excess of the original budget for the project (an approximate doubling of costs since the original decisions were made).

The review team considers that prima facie the costs of the scheme(s) appear to have increased so significantly that their economic justification is now doubtful. At the very least the economic justification of the schemes should be reviewed. The review team considers that the ESC should seek clarification from DSE:

- as to whether South Gippsland Water must deliver the project regardless of the economic issues that have arisen and confirm that there are broader social and environmental (or triple Bottom Line) drivers.
- on the timing for delivery of the schemes.
- Its likely commitment to funding of the schemes.

The review team considered that depending on the response from DSE and South Gippsland Water's own analysis it may be appropriate to continue with the project. The review team further

considered that the project was reasonable and the expenditure justifiable and prudent at the original Water Plan cost.

The review team notes that in general for small town sewerage schemes the following issues are relevant to a final position on capital expenditure related to them:

- The potential for delay in expenditure – as there appears to be drift in the deliverability of such schemes given their problematic economic justification at the current level of (and caps on) contributions from the beneficiaries and the contributions from government in contributing to the recovery of the cost of the schemes. It is understood that the caps have not been indexed to keep pace with the increasing costs of such schemes.
- Smaller and mid-size projects are more likely to be delayed with contractors focussing on larger projects.
- Some schemes have greater merit than others because of the environmental consequences in not proceeding. For example rapidly developing towns in sensitive areas (e.g. coastal areas) and where significant quantity of sewage is generated.
- The constraints for such projects are becoming increasingly more onerous.

South Gippsland Water has formally responded to the draft report indicating that "In contrast to SKM's [the review team's] recommendation to seek further clarification on the necessity of the Scheme, South Gippsland Water considers that it has a regulatory obligation to deliver on its Statement of Obligations and therefore the P/L/N Sewerage Scheme, regardless of economic issues. It must be pointed out that the CAPEX forecasts in the Water Plan will need to be adjusted up (by approximately $8M) prior to the draft determination."

Central to South Gippsland Water's view of its requirements to deliver the Poowong Loch Nyora scheme is its interpretation of the obligations imposed on it by its Statement of Obligations. The review team considers a number of clauses of SGW's Statement of Obligations as being relevant, including:

- Section 6 Guiding Principles. "In performing its functions and providing its services the Authority must:

  …

  (b) effectively integrate economic, environmental and social objectives into its business operations; and

  …

  (e) operate as efficiently as possible consistent with sound commercial practice; and

  (f) manage its business operations to maintain the long-term financial viability of the Authority; and

  (g) undertake continuous review, innovation and improvement; and

(h) collaborate with other public authorities and government agencies to take account of regional needs."

- Clause 8.3. "In developing the Water Plan the Authority must consult with the Department on matters to be included in the Water Plan and that relate to the performance of the Authority's functions and the obligations included in the Statement."
- Clause 19.2 "If reticulated services:

(a) have been identified in a domestic wastewater management plan as the preferred option for improved domestic wastewater management; or

(b) have been nominated by the Minister in any Government program,

the Authority must develop a sewerage management plan in conjunction with the Environment Protection Authority and relevant municipal council, and in consultation with the local community that:

(i) identifies the preferred types and levels of sewerage services to be provided together with costs and funding options;

(ii) identifies priorities and possible timelines for the provision of services;

(iii) identifies how the wastewater collected, including biosolids, will be sustainably managed; and

(iv) provides for a regular review of the plan and priority areas for sewering."

The purpose of outlining the above excerpts from SGW's Statement of Obligations is to acknowledge that SGW does indeed have an obligation to undertake such projects but that it is not an unqualified one. Also the review team wishes to indicate how its views have been informed and demonstrate the primary point that the obligation in relation to these schemes should be clarified explicitly through further discussions (and if necessary with further direction from) the DSE. In particular the provisions to be included in the Water Plan warrant such discussion given the changed circumstances and new information on the costs of the proposed schemes.

The review team considers that the statement by South Gippsland Water, that " … South Gippsland Water considers that it has a regulatory obligation to deliver on its Statement of Obligations and therefore the P/L/N Sewerage Scheme, regardless of economic issues" as problematic given Section 6 of its Statement of Obligations which clearly requires South Gippsland Water to be guided by economic issues (Section 6 sub clauses (b), (e) and (f)). The review team considers that

- Section 6 of the Statement of Obligations should guide South Gippsland Water to discuss Poowong Loch Nyora with DSE further given the high cost of the scheme (Section 6 sub clauses (g) and (h) and clause 8.3),
- It is unreasonable to interpret the Statement of Obligations as requiring South Gippsland Water to implement programs "at any cost", and

- Clause 19.2 does not prevent South Gippsland Water changing the timing or scope of any scheme in consultation with DSE.

The review team discussed South Gippsland Water's response with both it and the ESC. In turn the review team understands that the ESC has had, or will have, discussions with DSE on this matter. The review team has not discussed this issue with the DSE. However, the review team generally understands that both the ESC and DSE are not opposed to delaying sewerage schemes (implicitly including the Poowong Loch Nyora project) to allow further consideration of the options and/or the costs of such schemes and that both the ESC and DSE would not see this as being inconsistent with South Gippsland Water's Statement of Obligations.

In summary the review team considers that:

- the project is justified in broad terms;
- the project commencement and associated expenditure should be delayed by two years until towards the end of the second regulatory period;
- the original provision in SGW's Water Plan of $7.9M should be replaced by a gross provision of approximately $16M consistent with the most recent cost estimate in the URS report of December 2007 (assuming that the government's contribution of $2M is accounted for in the revenue received, otherwise this amount will need to be adjusted downwards); and
- the bulk of the capital expenditure should be included in the last two years of the regulatory period with a small balance of expenditure to completion provided for in the first year after the second regulatory period. The total provision in the regulatory period is $14M.

5.2.2 Tarra River Off-stream Storage

This project involves the construction of a new 200 ML storage reservoir to improve the security of supply and provide for growth within the Yarram area. The project includes acquisition of private land near Tarra River, community consultation, design, construction of an embankment wall, provision of power, vehicle access track, pump station and transfer delivery pipeline to an existing water treatment plant.

South Gippsland Water has provided a copy of its Water Supply Demand Strategy. Section 15 of this document outlines the justification for this project. This section provides detailed demand forecasts and shows that a "do nothing" option will lead to restrictions in approximately every third year. Two strategic options were considered including demand management and construction of a new offline storage.

A functional design report was completed in May 2007 (Functional Design Report, Tarra Valley Offstream Storage, URS, May 2007) and a copy of this report has been supplied to the review team. The report considers three (3) options for the off stream storage. The first option was to build a 200 ML storage located in the upper section of the Tarra Valley catchment. The second

option is to build a 200 ML storage further down the Tarra Valley catchment. The final option is to construct a 400 ML storage in the downstream section of the catchment. The report found that the lowest cost location for the storage was the upstream section. The upstream section had more reliable geological conditions. South Gippsland Water is proposing to construct a 200 ML storage in the upstream section of the catchment (Option 1).

The report provides schedule of rate cost estimates for the three options and also provides risk based cost estimates. The cost estimate for the preferred option detailed in the report is $5.3M including contingency and the reported worst case risk based project cost is $6.1M. The cost includes the inlet (1,300 metres) and outlet (1,100 metres) works. The cost does not include South Gippsland Water costs and the cost of land purchases. The cost in South Gippsland Water's Water Plan is $6.45M which allows for those items not included in the URS report.

The review team considers that there is a strong justification for the project which is based on South Gippsland Water's water supply demand strategy and supported by a sufficiently rigorous options selection and refinement process. The costs proposed are prudent and reasonable and the timing proposed for the works is appropriate. No change is recommended to the capital expenditure for this project or the profiling of the expenditure.

5.2.3 Meeniyan Sewerage Scheme

The issues around this project are broadly similar to those identified for the Poowong / Loch / Nyora small town sewerage schemes as discussed in **Section 5.2.1**.

In its draft report the review team noted that it had left the expenditure for this project in the Water Plan period but had shifted it out two years consistent with the wording in SGW's Water Plan (refer page 46). The review team noted that there was a discrepancy between the Water Plan and the capital expenditure breakdown by project provided by SGW during discussions. The former indicates that this project would be undertaken in 2010/11 at a cost of $4.05M (representing SGW's contribution), while the latter indicated that the project would be undertaken in 2008/09 ($2.0M) and 2010/11 ($1.81M). South Gippsland Water has advised that "….the (Meeniyan) Scheme, as Table 5.4(c) of the Water Plan points out, is due for completion in 2010/11 with construction commencing 2008/09. The scheme is well advanced in terms of design and is expected to be delivered on time."

The review team also notes the slight difference in capital cost is associated with design costs that have or will be incurred in the 2007/08 financial year (where $0.6M has been budgeted for such costs). However, the review team notes that while the scheme is due for delivery in 2010/11, based on the information supplied by South Gippsland Water, no expenditure proposed in 2010/11.

The review team considered shifting the 2 year construction expenditure profile provided by South Gippsland Water to occur over the year 2009/10 and 2010//11 consistent with South Gippsland

Water's comments that the scheme will be delivered in 2010/11. However, based on a final discussion with South Gippsland Water the review team acknowledges that the scheme will be most likely be delivered in 2009/10 and is satisfied that South Gippsland Water can deliver the project by this date.

No change is recommended to the quantum or profiling of capital expenditure for this project, although reconciliation of the finer details of the costs described in various documents is needed.

5.2.4 Coalition Creek Reservoir

The primary drivers for the Coalition Creek Reservoir project are dam safety and risk reduction. The project involves rehabilitation of the dam embankment (to address excessive seepage issues) by constructing an embankment crest and a downstream toe drain and outlet tower works (to address a lack of stability of the outlet tower in the event of an earthquake). The embankment raising will also increase storage capacity by 100ML.

The review team has discussed with SGW the current status of this project and expenditure to date. This project has already been deferred from the initial target date of 2005/06 to 2007/08/09. South Gippsland Water advised that "Works were delayed in order to ensure integration with South Gippsland Water's Water Supply Demand Strategy." The review team considers that the basis for delaying the project is reasonable and that South Gippsland Water should be able to deliver the project by the programmed date.

The estimated cost of the project is $3.3M. The review team considers that this expenditure is prudent and reasonable in comparison with the costs of like works for other water authorities.

No change is recommended to the quantum or profiling of capital expenditure for this project.

5.3 Recommendations

Table 5-3 outlines the proposed revisions to South Gippsland Water's capital expenditure forecasts for the 5 year regulatory period.

[NB: **Table 5-3** is on the next page.]

Table 5-3: Recommended Changes to BAU CAPEX

Change Item	Project/Description		$M						
			2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	Later Periods
1	Poowong Loch Nyora Sewerage Scheme	Original Water Plan Forecast:		1.70	4.00	2.20	0.00	0.00	
		Recommended Revised Forecast:		0.00	0.00	1.70	6.00	6.30	2.00
		Recommended Net Change:		-1.70	-4.00	-0.50	6.00	6.30	2.00
Total Recommended Net Change:			$ -	$ (1.70)	$ (4.00)	$ (0.50)	$ 6.00	$ 6.30	
Original Water Plan Total Regulatory Capex:				$ 12.07	$ 10.24	$ 9.86	$ 8.55	$ 7.18	
Recommended Revised Total Regulatory Capex:			**$ -**	**$ 10.37**	**$ 6.24**	**$ 9.36**	**$ 14.55**	**$ 13.48**	

6. Operating Expenditure (Opex)

Table 6-1 presents a breakdown of historical and forecast operating expenditure in a format used by South Gippsland Water in its management reports.

- **Table 6-1: Historical and Forecast Opex (Real Costs $M p.a.)**

	Operating Expenditure (Real) $M p.a.						
Category	**2006-07**	**2007-08**	**2008-09**	**2009-10**	**2010-11**	**2011-12**	**2012-13**
Labour	4.71	5.10	5.31	5.34	5.50	5.58	5.73
Materials	0.15	0.12	0.13	0.12	0.12	0.12	0.12
Chemicals	0.92	0.84	0.85	0.84	0.84	0.84	0.84
Energy	0.69	0.65	0.66	0.65	0.65	0.64	0.65
Outsourced services	0.12	0.12	0.12	0.12	0.12	0.11	0.12
Maintenance	1.26	0.79	0.80	0.78	0.79	0.78	0.78
Licences	0.11	0.12	0.12	0.12	0.12	0.12	0.12
Sampling & testing	0.29	0.28	0.28	0.27	0.28	0.27	0.27
Communications	0.14	0.14	0.14	0.13	0.14	0.13	0.13
Vehicles	0.35	0.36	0.36	0.36	0.36	0.35	0.36
Insurance	0.22	0.23	0.23	0.23	0.23	0.22	0.23
Bank Charges	0.10	0.10	0.10	0.10	0.10	0.10	0.10
Computer Expenses	0.12	0.11	0.11	0.11	0.11	0.11	0.11
Balance of OPEX	1.71	0.91	0.93	0.91	0.92	0.91	0.91
Operations Projects	0.76	0.89	1.57	1.27	1.29	1.30	1.28
New Opex	0.55	0.57	0.70	0.67	0.66	0.64	0.63
Total	**12.21**	**11.31**	**12.41**	**12.02**	**12.22**	**12.25**	**12.38**

Note: SGW data converted by SKM from nominal $ (as provided by SGW) to real $ as at 1 January 2007.

The major increases in expenditure are associated with Labour and Ops Projects. There are a number of new positions proposed by South Gippsland Water that contribute in part to these increases and these are discussed in the following sections.

6.1 Derivation of the Variance

Table 6-2 shows the estimation of the Target BAU Opex costs (derived as described in **Section 2**) and the variance of the planned Opex from that Target BAU Opex for South Gippsland Water.

- **Table 6-2: Historical and Forecast Opex and Variance to Target BAU (Real 1/1/07 $M)**

Expenditure in $ millions real (1/1/07)	FIRST REG PERIOD			SECOND REG PERIOD				
	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
BAU opex	10.25	11.55	10.61	11.60	11.22	11.43	11.45	11.59
New obligations				0.11	0.11	0.11	0.11	0.11
Sub-total Opex	***10.25***	***11.55***	***10.61***	***11.71***	***11.33***	***11.54***	***11.56***	***11.70***
Bulk water charges	-	-	-	-	-	-	-	-
Licence fees	0.10	0.13	0.15	0.14	0.14	0.15	0.17	0.18
Enviro levy	0.55	0.53	0.56	0.56	0.55	0.53	0.52	0.51
Gross operating expenditure	**10.89**	**12.21**	**11.31**	**12.41**	**12.02**	**12.22**	**12.25**	**12.38**
Target BAU Opex			**11.60**	**11.65**	**11.69**	**11.74**	**11.78**	**11.82**
Variance from Target BAU Opex			**(1.00)**	**0.06**	**(0.36)**	**(0.20)**	**(0.22)**	**(0.12)**
Customers and Consumption								
Total customers ('000)	16.11	16.84	17.09	17.33	17.57	17.81	18.06	18.30
Growth relative to 2006-07	-	1.00	1.02	1.03	1.04	1.06	1.07	1.09

Overall the total planned operating expenditure in the second regulatory period is less than Target BAU Opex both in aggregate over the five year period and for each year other than 2008/09. This indicates that (after allowing for growth) productivity improvements exceeding 1% per annum relative to the 2006/07 base year are expected.

6.2 Additional costs relative to the 2006/07 base ('Explanation of Variance')

South Gippsland Water advised the review team of a number of "new" / additional costs that it expects to incur during the regulatory period and that it regards as additional to the normal BAU Opex incurred in 2006/07. As such, these costs indicated the extent by which planned productivity improvements exceed 1% per year, after allowing for growth.

The list of additional costs advised by South Gippsland Water (for nominated projects and activities) is shown in **Table 5-3**. The list of projects and activities is sorted from most to least expensive. [NB: This list would ordinarily be considered as potentially justifying a 'Variance to Target BAU Opex' where the variance is positive. As noted above, for SGW the variance is negative and effectively if none of these additional costs were allowed the Growth Adjusted Target BAU Opex would still be achieved.]

- **Table 6-3: New" Costs or Explanation of the Variance from Target BAU Opex submitted by South Gippsland Water (Real 1/1/07 $M p.a.)**

Description	Forecast Expenditure ($ 000 - real Jan 2007)					
	2008/09	2009/10	2010/11	2011/12	2012/13	Total
Saline Outfall Costs	120	120	120	120	120	600
Electricity (Extra Operating Costs)	120	120	120	120	120	600
Sustainability Obligation	113	113	113	113	113	565
Lance Creek Chloramination	110	110	110	110	110	550
Minor Trade Waste Surveillance Cost	75	75	75	75	75	375
Korumburra Drought Works	90	-	90	-	90	270
Poowong, Loch, Nyora Sewerage Scheme	-	-	-	125	125	250
Catchment Officer	45	45	45	45	45	225
Leongatha Drought Works	50	-	50	-	50	150
Meeniyan Sewerage Scheme	-	-	37	37	37	111
Dumbalk WW Management Scheme	20	20	20	20	20	100
Yanakie WW Management Scheme	10	10	10	10	10	50
Total	**753**	**613**	**790**	**775**	**915**	**3,846**
Variance from Target BAU Opex	61	(363)	(196)	(221)	(125)	(844)
Difference	**692**	**976**	**986**	**996**	**1,040**	**4,690**

As the "Variance from Target BAU Opex" is negative and only a small quantum of the variance requires explanation these "new" costs have not been assessed in detail by the review team. Nevertheless the review team did assess the additional items identified for reasonableness in broad terms. The review team notes that the information suggests in broad terms (assuming all the above items were considered justified after more detailed examination):

- South Gippsland Water intends to achieve an implied "productivity" increase of approximately 5% in the first year (including the stipulated 1% productivity improvement post allowance for growth), approximately 3% in 2009/10 (including the stipulated 1% productivity improvement post allowance for growth) and a productivity in the last three years of slightly greater than the 1% minimum stipulated productivity (post growth).

Concise information on the significant items in **Table 5-3** which were explored in some detail with South Gippsland Water is presented in the following sections.

6.2.1 Saline Outfall Costs

The saline outfall costs shown in **Table 6-3** are the result of a new trade waste agreement with a major trade waste customer (Murray Goulburn). Previously this large trade waste customer was receiving a service provided at cost plus margin. This process required South Gippsland Water to write out costs in its accounts and show only the margin as income (with neither the costs shown as operating expenditure or a corresponding equivalent amount as revenue). The trade waste customer is to commence a new agreement imminently and will pay an amount based on tariffs established in the agreement. The change in arrangements means that all the costs of managing the major trade waste customers will be fully recognised in South Gippsland Water's accounts.

The review team considers that establishing such a trade waste arrangement with Murray Goulburn a prudent and appropriate and the cost of managing this trade waste is broadly reasonable (given that Murray Goulburn is a large customer and discharge large volumes of trade waste).

In its draft report the review team indicated that it needed to better understand SGW's accounting practices (through receipt of further advice) to determine whether the expenditure is new or existing. Based on advice from South Gippsland Water, the review team understands that the expenditure is new to its accounts (notwithstanding that SGW has been incurring these costs up to this point). South Gippsland Water has indicated that the costs are not double counted and that revenue is fully disclosed."

The review team recommends that, as a minimum, that further checks be undertaken to ensure that the revenue for management of this trade waste under the new arrangements is also properly accounted for in SGW's revenue forecasts in its Water Plan (noting that it has not been up to this point). The review notes that South Gippsland Water had undertaken further checks and has confirmed that both revenues and costs are included in its Water Plan.

The review team highlights that it is satisfied that this item is acceptable as contributing to the explanation of Variance from Target BAU Opex and that no change be made to this expenditure. However given the nature of this explanation of variance (i.e. an historical accounting anomaly), the review team recommends that this be further reviewed as part of a future accounting audit.

6.2.2 Electricity (Extra Operating Costs)

South Gippsland Water has provided data on its assessment of the real increases in annual electricity costs which amount to approximately $591.5K or in total ($600K in round terms) for the five year regulatory period. South Gippsland Water has also advised that its estimate of electricity costs was based on assumed price rises and not material increases in energy demand. The review team has applied percentage increases as outlined in **Section 3.2.1** of this report instead of the price rises nominated by South Gippsland Water.

South Gippsland Water responded to the review teams draft report by stating that:

Our electricity consultant has read through the SKM [review team] section on electricity and did note that the rates quoted are much lower than offered in the wholesale/retail market at present.

SKM [the review team] has used future pricing which are seen as misleading and irrelevant. Futures are speculative and there is little point in using them as an index in the current conditions as they don't take into account load considerations, timing to market or retail margins and are generally large traded volumes. The figures indicate a contango effect in the short term over 2 yrs with the future forecasts going into backwardation. The retailer's recent submissions to our consultant don't indicate a backwardation effect in 2011, but more of a bullish forward curve.

The consultants further observe that the SKM [review team] rates in Table 3-2 are unrealistic and outdated as rates have recently moved marginally higher.

From pricing they have received lately all retailers are high in 2010 and beyond due to the uncertainty in the carbon scheme. Many businesses will be required to renegotiate another contract come 2011 and with these rates unknown they recommend building in additional margin to cover this uncertainty, much the same as a retailer will when hedging an electricity contract.

South Gippsland Water offered to arrange a discussion between the review team and its electricity consultant but South Gippsland Water's consultant was not able to follow through. The review team's position is detailed in **Section 3.2.1**.

However, the review team notes:

- The information from South Gippsland Water's adviser and that SGW proposes to contract for electricity through the Strategic Purchasing Unit (in conjunction with water authorities).
- That it sought advice from a number of specialists in the area which indicated that using futures prices was an acceptable way to forecast electricity prices.
- That it is not aware of the details of the alternate forecasting methodology proposed by South Gippsland Water (the underlying methodology was not sighted) and so could not fully assess how SGW arrived at its estimates.

South Gippsland Water indicated to the review team that whilst they had a different view on the future price of electricity that they were not opposed to the review team basing its findings on its current methodology. This was on the proviso that if electricity contracts are signed with Strategic Purchasing piror to water prices being set (which South Gippsland Water expects might be the case) that the electricity contract prices be used to set South Gippsland Water's prices instead of the price forecasts established by the review team. In broad terms the review team considers this to be a reasonable approach.

The review team recommends that the electricity price increases in **Section 3.2.1** be adopted and South Gippsland Water's energy expenditure be adjusted accordingly. This would result in reductions in energy costs of $41K (2008/09), $18K (2009/10), $16K (2010/11), $13K (2011/12) and $10K (2012/13).

6.2.3 Sustainability Obligation

Table 4.4(a) in South Gippsland Water's Water Plan indicates that it has allocated $65K for the appointment of a sustainability officer in response to clause 24 of its Statement of Obligations which requires it to apply the Sustainable Management Principles (as defined in Schedule A of the Statement of Obligations) in performing its functions, exercising its powers and carrying out its

duties. South Gippsland Water provided further information and advises that it has allowed $113K per annum in its Water Plan for this initiative. This resource will have to develop and implement programs for assessing, monitoring and improving South Gippsland Water's performance in relation to responding to climate change, maintaining and restoring natural assets, using resources more efficiently and managing everyday environmental impacts.

The review team has considered Clause 24 and believes that the work associated with meeting the obligations under this clause appears to be work that South Gippsland Water has not previously undertaken in detail and could substantially occupy a full time sustainability officer. South Gippsland has allowed $65K in labour costs and a further $48K for additional activities and consultancies (to be managed by the sustainability officer). The review team considers that the new $113K annual planned Opex is reasonable and justifiable.

6.2.4 Lance Creek Chloramination

The Lance Creek Chloramination project was commissioned after 2006/07 and does not contribute to South Gippsland Water's 2006/07 operating expenditure. It was constructed to ensure that the drinking water supply quality to residents supplied from the Lance Creek water source meets the new Australian Drinking Water Guidelines. Without the plant the drinking water quality would be at risk of not meeting these guidelines. The cost of operating the chloramination plant includes $80K per year for ammonia and $30K per year for chlorine. The plant will treat up to 6 ML/d.

The review team considers that there is sufficient justification for the project and that the estimate of additional/new costs is reasonable and prudent. The review team recommends that no adjustment be made to the cost of this activity.

6.2.5 Minor Trade Waste Surveillance Cost

Table 3.4(b) in South Gippsland Water's Water Plan indicates that significant improvement has been achieved in the area of treatment plant compliance to EPA licences through better management of trade waste customers. This table notes the requirement of the Statement of Obligation pertaining to trade waste (clause 21). It also notes that this is BAU expenditure. In Section 7.1.9.2 of SGW's Water Plan there is reference to a need for South Gippsland Water to identify and manage minor trade waste customers consistent with the draft recommendations of a trade waste review conducted by DSE. The expenditure proposed by South Gippsland Water will cover the cost of an additional trade waste officer and associated costs.

In its draft report the review team considered that based on ESC guidance there is insufficient justification to use management of existing trade waste customers as an explanation for expenditure in excess of Target BAU Opex as these are existing and not new trade waste customers and an allowance for growth has already been made in determining the "Variance from Target BAU

Opex". Nevertheless the review team considers that undertaking this work for minor trade wastes as proposed by SGW is prudent.

South Gippsland Water responded that;

While South Gippsland Water certainly concedes that better management of existing trade waste customers is not a "new obligation", it draws SKM [the review team] to the fact that South Gippsland Water has put forward a new minor trade waste pricing regime, one that has never previously been administered by the Corporation. South Gippsland Water considers it a new service with its own identifiable revenue streams and operating costs of management.

To remove these costs means that South Gippsland Water would either need to abandon the new minor trade waste regime (and associated income) or absorb the extra costs into a cost base that, as SKM [the review team] observe, already delivers "productivity improvements in excess of growth".

The review team considered the argument that a new service was being offered given that the changes to the management of trade waste were significant. The review team's view is that there is merit in South Gippsland Water's argument and the review team considers that the expenditure is a reasonable and justifiable explanation of variance to Target BAU Opex. A more rigorous assessment of this explanation would have been undertaken if South Gippsland Water had a Variance to Target BAU Opex that actually required explanation.

6.2.6 Korumburra Drought Works

During the drought South Gippsland Water has undertaken emergency measures to supply water to Korumburra. This has required South Gippsland Water to obtain temporary licences to extract water from rivers and has included the costs associated with diesel fuel to pump river water into its reservoirs. South Gippsland Water has determined that it will need an additional annual expenditure of $90K in every second year of the regulatory period starting from 2008/09. This estimate is based on pumping 720 ML in the July to October period using 3 existing diesel fuelled pump sets. In its draft report the review team considered that this expenditure is prudent if drought was to continue and the cost estimate reasonable.

However, in its draft report the review team considered whether it was reasonable to assume that drought conditions would continue and concluded that, given the overall position of SGW's water resources and current reservoir levels in the region with recent heavy rains, inclusion of such Opex in the list of allowable new/additional operating expenditure is problematic and can be potentially removed. The review team considered that as an alternative it may be more appropriate to make a mid term regulatory adjustment to account for drought if this was to exacerbate the current position with regard to water storage levels and/or the drought was to continue.

South Gippsland Water responded that:

South Gippsland Water has consistently moved into restrictions in the Leongatha and Korumburra regions over the last ten years. The extra pumping costs are not just about providing water in Stage 4 restrictions, but are about maintaining "level of service" to customers.

South Gippsland Water's target level of service objectives for maintaining an adequate supply to customers are specified as follows:

- *any level of water restriction should not occur more frequently than 1 year in 10 (i.e. 10 years in 100)*
- *more severe restrictions (levels 3 and 4 of four stages) should not occur more frequently than 1 year in 15 (i.e. ~7 years in 100).*

Stages 1 and 2 restrictions tend to restrict the times at which users can use water for certain activities, whereas Stages 3 and 4 restrictions tend to affect the activities that can be undertaken at any time. These level of service objectives for the frequency of restrictions are comparable with other non-metropolitan urban water authorities in Victoria. South Gippsland Water has already implemented permanent water saving measures in line with the rest of Victoria.

If these costs are removed then this puts South Gippsland Water's ability to provide its most basic service standard at risk.

The review team discussed this issue further with South Gippsland Water and came to the conclusion that the "Korumburra Drought Works" were not really drought works, but part of the ongoing provision of water supply to Korumburra. This is based on South Gippsland Water's comments regarding the frequency of restrictions without the additional supply as compared to the frequency of the drought.

The review team recommends that no adjustment be made to this expenditure.

6.2.7 Poowong, Loch, Nyora Sewerage Scheme

This scheme has been reviewed and discussed in the Capex section of this draft report. The infrastructure required under the scheme includes a treatment plant and most likely three (3) sewage pumping stations. These assets will lead to an increase in Opex associated with monitoring, maintenance, energy, administration and reporting. Planning for the Poowong, Loch and Nyora sewerage scheme is in its early stages and a detailed breakdown of the $125K per annum was not able to be provided (and was therefore not reviewed). Allowing an operating cost of between $10K and $20K per annum for the small sewage pumping stations would leave between $45K and $95K per annum to operate the lagoon based treatment system. Given the early stage of planning an amount of $125K per annum is a reasonable estimate of the schemes operational costs.

However, the review team has adjusted the timing of this expenditure based on the discussion in the Capex section above. No Opex would occur during the second regulatory period based on the timing proposed by the review team (refer Section 5.2 and Table 5.3).

6.2.8 Catchment Officer

Table 5.3(b) in South Gippsland Water's Water Plan indicates that an EPA sponsored employee will be paid $45K p.a. to inspect water catchments and manage risks in raw water supplies. The review team understands that the EPA will contribute to the funding of this employee and that there are synergies between the roles that the person will undertake for both the EPA and SGW.

The purpose of this expenditure is to meet drinking water guidelines and SDWA obligations. The expenditure is justifiable as it addresses an existing risk and obligation and represents an additional activity that was not previously undertaken. The review team considers that the cost is justified and robust and notes that there are likely to be savings associated with cross organisation cooperation as proposed by the EPA and South Gippsland Water.

The review team recommends that no adjustment be made to this expenditure.

6.2.9 Leongatha Drought Works

During the drought South Gippsland Water has undertaken emergency measures to supply water to Leongatha. This has required South Gippsland Water to obtain temporary licences to extract water from rivers and has included the costs associated with fuel and electricity to pump river water into its reservoirs. The scheme is similar to that as described above for Korumburra Drought Works, but the cost to pump water at Leongatha is cheaper than at Korumburra because two of three pump sets are powered using electricity (rather than diesel). The review team considers that the expenditure is prudent and the cost estimate reasonable.

However similar to the Korumburra drought Works expenditure item, the review team considered whether it was reasonable to assume that drought conditions would continue and concluded that, given the overall position of SGW's water resources and current reservoir levels in the region with recent heavy rains, inclusion of such Opex in the list of allowable new/additional operating expenditure is problematic and could be potentially removed. The review team considered that as an alternative it may be more appropriate to make a mid term regulatory adjustment to account for drought if this was to exacerbate the current position with regard to water storage levels and/or the drought was to continue.

The review team discussed this issue further with South Gippsland Water and came to the conclusion that the "Leongatha Drought Works" were not really drought works, but part of the ongoing provision of water supply to Leongatha. This is based on South Gippsland Water's comments regarding the frequency of restrictions without the additional supply as compared to the frequency of the drought.

The review team recommends that no adjustment be made to this expenditure.

6.2.10 Meeniyan, Dumbalk and Yanakie Schemes

The Meeniyan Sewerage Scheme, Dumbalk Waste Water Management Scheme and Yanakie Waste Water Management Scheme are all new projects which are part of South Gippsland Water's small town sewerage program. The need for the schemes is to sewer properties that are currently connected to septic tanks and which cannot contain waste on site. Construction of the schemes will lead to additional Opex associated with energy, chemicals, operation and maintenance. The increased expenditure is planned to occur in the year after the respective sewerage schemes are constructed.

The review team considers that the schemes and associated Opex are justified. The actual planned expenditure appears reasonable as a percentage of the capital expenditure and based on the number of properties to be serviced. The review team indicated that the timing of the Opex required for Dumbalk and the status of the Dumbalk project may need to be confirmed as South Gippsland Water's Water Plan indicates it is currently unsewered.

South Gippsland Water responded that;

The Dumbalk and Yanakie schemes are not mandated in South Gippsland Water's SoO and we are having difficulty agreeing with DSE the size and shape of the propose schemes. Regardless, the income and expenditure for the two schemes are matching at $20,000 p.a. and the inclusion or exclusion of both revenue and cost is academic. The Meeniyan scheme is as discussed a SoO item.

The review team understands that Dumbalk and Yanakie are part of its sewerage backlog program rather than a country town scheme. The review team considers this a reasonable explanation for the timing of expenditure.

The review team recommends not change to this expenditure item.

6.2.11 Summary

Table 6-4 presents a list of projects and activities that South Gippsland Water has provided to explain the Variance to Target BAU Opex shown in **Table 6-2** adjusted based on the preliminary views of SKM as discussed in the previous sections.

- **Table 6-4: New" Costs or Explanation of the Variance from Target BAU Opex – Review Team's Preliminary Assessment (Real 1/1/07 $M p.a.)**

Description	Forecast Expenditure ($ 000 - real Jan 2007)					
	2008/09	2009/10	2010/11	2011/12	2012/13	Total
Saline Outfall Costs	120	120	120	120	120	600
Electricity (Extra Operating Costs)	79	102	104	107	110	502
Sustainability Obligation	113	113	113	113	113	565
Lance Creek Chloramination	110	110	110	110	110	550
Minor Trade Waste Surveillance Cost	75	75	75	75	75	375
Korumburra Drought Works	90	-	90	-	90	270
Poowong, Loch, Nyora Sewerage Scheme	-	-	-	-	-	-
Catchment Officer	45	45	45	45	45	225
Leongatha Drought Works	50		50		50	150
Meeniyan Sewerage Scheme	-	-	37	37	37	111
Dumbalk WW Management Scheme	20	20	20	20	20	100
Yanakie WW Management Scheme	10	10	10	10	10	50
Total	**712**	**595**	**774**	**637**	**780**	**3,498**
Variance from Target BAU Opex	61	(363)	(196)	(221)	(125)	(844)
Difference	**651**	**958**	**970**	**858**	**905**	**4,342**

Even after the review team's potential adjustments to the "allowable new/additional costs" the reasonable allowable Variance from Target BAU Opex for the first year of the regulatory period is still significantly in excess of the Variance to Target BAU Opex. That is no adjustment to SGW's planned Opex for that year (or the other years) is proposed.

6.3 Conclusions and Recommendations

The review team recommends that:

- No change be made to the total regulatory Opex submitted by South Gippsland Water in its Water Plan based on the fact that the Variance from Target BAU Opex requires no explanation (i.e. is negative) for all years other than 2008/09 and most of the "additional new costs" proposed by SGW are considered reasonable and prudent (refer **Table 6.4**);
- Had this not been the case then the following adjustments would have been proposed (comparison of the third last lines in **Tables 6.3** and **6.4**.
  - 2008/09: ($41K)
  - 2009/10: $32K
  - 20010/11: ($16K)
  - 2011/12: ($88K)
  - 2012/13: ($135K)

References

"South Gippsland Water, Water Plan 2008/09 to 2012/13", South Gippsland Water, 15 June 2007.

"Water Supply Demand Strategy – Submission to Government, Final", South Gippsland Water, 6 June 2007.

"Innovative Sewerage Services for Poowong, Loch and Nyora, Concept Design (Early Draft"), URS, 7 November 2007.

"Functional Design Report, Tarra Valley Offstream Storage (Final)", URS, 7 May 2007.

"Wastewater System Development/Implementation, Nyora/Poowong/Loch Wastewater Sewerage Scheme", South Gippsland Water Strategic Approval Statement, 23 February 2005.

"Country Towns Water Supply and Sewerage Program", DSE Letter to Mr Steve Evans CEO South Gippsland Region Water Authority, 11 May 2006.

"Water Plan 2 Summary (Capital Program)", 7 Page Excel Spreadsheet, South Gippsland Water.

"Additional Operating Costs", 5 page handout with spreadsheet, notes and emails relating to electricity price increases attached.

"Water Industry Act 1994 Statement of Obligations South Gippsland Region Water Authority", John Thwaites MP, Minister for Water, Environment and Climate Change (undated).

"South Gippsland Water Comments Inserted into South Gippsland Water Expenditure Review File Note", SKM, 29November 2007.

Appendix A Futures Price of Electricity

Article from the Australian Financial Review of 16th January 2008.

Electricity futures lose some spark

Stephen Wisenthal

Financial Review 16 January 2008

Queensland electricity futures prices have slumped more than 35 per cent in the past three months, increasing the opportunities for power retailers to vie for customers in a market that opened to competition last July.

Utilities, including NSW government-owned EnergyAustralia, CLP Holdings-owned TRUEnergy and several smaller companies that had been planning to enter the Queensland market, scaled back or abandoned their plans as the cost of locking in electricity prices soared last year.

But summer rain in south-east Queensland has started refilling dams, reducing the chances that power plants will have to cut output because they cannot get enough water for cooling.

This has reduced the risk of power shortages, while electricity demand has dropped due to low summer temperatures.

The spot electricity price in Queensland has averaged $39.45 a megawatt hour so far this month.

Contracts on the Sydney Futures Exchange that lock in Queensland power prices for all of 2008 rose as high as $92 a megawatt hour in June, three times their price at the beginning of last year, as dam levels fell toward 17 per cent.

But they have fallen to $56.24 a megawatt hour this week.

Power price futures for Victoria and NSW have also declined from their mid-2007 peaks, but have not dropped as steeply as Queensland prices.

The cost of locking in prices for 2008 in NSW is $54.62 a megawatt hour, while Victorian 2008 futures are $56.72 a megawatt hour.

South Australian futures have bucked the trend, amid concern about generation capacity, rising to $81.55 a megawatt hour this week, from $45 a megawatt hour a year ago.

The slump in Queensland wholesale power prices increases the margins that are available to retailers.

AGL Energy and Origin Energy each spent $1.2 billion last year to buy power retailers from the Queensland government.

They have each said they have hedged their electricity price exposure this year, although AGL's profit downgrade last year included a $12 million reduction in earnings because of lower margins on sales to retail customers.

But the 18 per cent annual rate of "churn", or changing of supplier, by Queensland retail customers in December, indicates the state's market is becoming more attractive to utilities.

"Churn is a sign that there is more margin available," UBS analyst David Leitch said.

This was likely to bring back some of the big retailers that avoided Queensland when full competition started, he said.

But the tough credit market could hamper the efforts of smaller groups to gain the loan guarantees they needed.

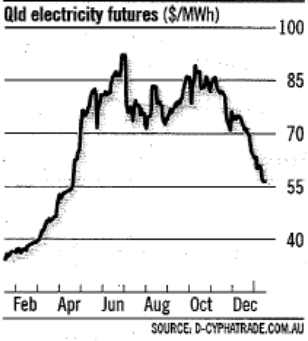
Origin and AGL are both working to increase the proportion of their electricity sales that they generate themselves. Origin is spending $1.3 billion to build a 630 megawatt power station near Dalby, fuelled by gas from its coal-seam methane fields.

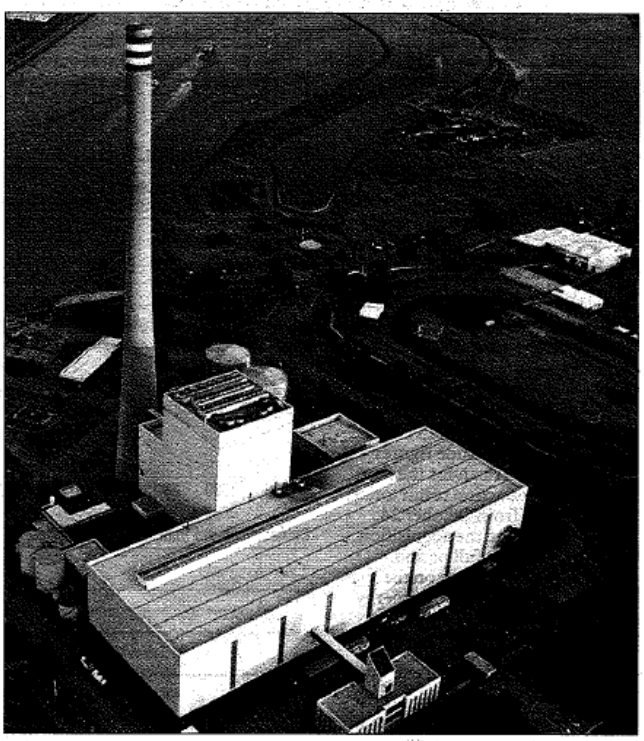
And AGL has locked in electricity supply from a power plant that Queensland Gas is building on its coal-seam methane fields.

This reflects the longer-term outlook for rising electricity prices, as costs of fuel and new power plants increase.

"Some of the heat has gone out of the market," Mr Leitch said. "Over a three to five-year view there is still a lot of cost pressure on the generating sector."

Sparking interest





Low summer temperatures have reduced Queensland electricity demand. Photo: JAMES DAVIES