

Independent Pricing and Regulatory Tribunal

Review of Capital Expenditure, Asset
Management and Operating Expenditure for
Gosford City Council and Wyong Shire Council

Final Review Report - Wyong

27 February 2006

The logo for Halcrow, featuring the word "Halcrow" in a bold, blue, italicized sans-serif font. The letter "H" is stylized with a diagonal stroke.

McLennan Magasanik Associates Pty Ltd

Independent Pricing and Regulatory Tribunal

Review of Capital Expenditure, Asset
Management and Operating Expenditure for
Gosford City Council and Wyong Shire Council

Final Review Report - Wyong

27 February 2006



McLennan Magasanik Associates Pty Ltd

Halcrow Pacific Pty Ltd

Level 1 542 Station Street Box Hill Melbourne VIC 3128
Australia
Tel +61 3 9899 9777 Fax +61 3 9899 1214
www.halcrow.com

Halcrow Pacific Pty Ltd has prepared this report in accordance with the instructions of their client, the Independent Pricing and Regulatory Tribunal (IPART) of New South Wales for their sole and specific use. Any other persons who use any information contained herein do so at their own risk.

© **Halcrow Group Limited 2006**

Contents

1	Introduction	1
1.1	<i>General</i>	1
1.2	<i>Scope</i>	2
1.3	<i>Review Process</i>	3
2	Identification of Major Issues	5
2.1	<i>General</i>	5
2.2	<i>JWS Desalination Project</i>	5
2.3	<i>JWS Hunter Water Corporation Connection Project</i>	6
2.4	<i>JWS Groundwater Extraction Project</i>	6
2.5	<i>Water Sharing Plans</i>	6
2.6	<i>Stormwater Charges</i>	7
2.7	<i>Trade Waste Charges</i>	7
2.8	<i>Other Items</i>	7
3	Capital Expenditure	10
3.1	<i>General</i>	10
3.2	<i>JWS Drought Contingency Projects</i>	10
3.3	<i>JWS Desalination Project</i>	11
3.4	<i>JWS Hunter Water Corporation Connection Project</i>	15
3.5	<i>JWS Groundwater Extraction Project</i>	19
3.6	<i>Water Sharing Plans</i>	22
3.7	<i>Stormwater Charges</i>	23
3.8	<i>Trade Waste Charges</i>	27
3.9	<i>Other Items</i>	28
3.10	<i>Capital Expenditure for Projects Not Reviewed</i>	68
3.11	<i>Capital Efficiency Targets</i>	69
3.12	<i>Historical Capital Expenditure Review</i>	70
3.13	<i>Recommended Capital Expenditure</i>	74
3.14	<i>Conclusion</i>	77
4	Operational Expenditure	78
4.1	<i>Introduction</i>	78
4.2	<i>Significant Actual Increases in Operating Cost</i>	78
4.3	<i>Significant Projected Cost Increases</i>	79
4.4	<i>Significant Changes to Projected Operating Costs between the 2004 and Current Submissions</i>	80
4.5	<i>Corporate Cost Allocation to Water, Wastewater and Stormwater</i>	83

4.6	<i>Historical Alignment of Budget to Actual Costs</i>	86
4.7	<i>Performance Benchmarking</i>	89
4.8	<i>Efficiency Targets</i>	89
4.9	<i>Recommended Projections</i>	90
4.10	<i>Conclusion</i>	92
5	Asset Management	95
5.1	<i>Information Required</i>	95
5.2	<i>Comments/Recommendations</i>	95
6	Summary Recommendations	98
6.1	<i>General</i>	98
6.2	<i>Recommended Expenditure 2005/2006</i>	98
6.3	<i>Recommended Expenditure 2006/2007 to 2008/2009</i>	99
6.4	<i>Other Issues</i>	100

Appendices

Appendix A – Other Items Listing	A
Appendix B – Capex Form	B

1 Introduction

1.1

General

Halcrow was engaged by the Independent Pricing and Regulatory Tribunal (IPART) to undertake an independent review of the proposed capital expenditure, asset management and operating expenditure for Gosford City Council (Gosford Council) and Wyong Shire Council (Wyong Council or Council) Water Agencies in order to set prices for regulated services for the period from 1 July 2006 to 30 June 2009 (“the price path period”). This report details the results of the review completed for Wyong Shire Council.

The Tribunal had previously set prices for Gosford Council and Wyong Council for the period from 1 July 2005 to 30 June 2006 (“the 2004/05 review”) (IPART, 2005a) based on a detailed review of capital expenditure, asset management and operating expenditure conducted by the Tribunal’s consultant (Atkins/Cardno, 2005).

The 2004/05 review was originally designed to set prices for Gosford Council and Wyong Council for the period from 1 July 2005 to 30 June 2009. However, at the time of the review there was considerable uncertainty in both Councils’ predictions of future capital and operating expenditure. This was a result of circumstances such as an ongoing drought and the investigation of strategies to manage a growing water supply/demand imbalance over the whole Central Coast region.

The Tribunal decided, on the basis of the uncertainties in the Councils’ submissions, to limit their price determination to a one year period only from 1 July 2005 to 30 June 2006. During this one year period, the Councils would have time to complete the strategy investigations underway at the time of the 2004/05 review and be given an opportunity to revise their pricing submissions on the basis of the results of the investigations.

The Tribunal is conducting the current review (“the 2005/06 review”) in order to align the Councils’ price paths with those of the other three regulated agencies - Sydney Water Corporation, Sydney Catchment Authority and Hunter Water Corporation, that is, the four year period from 1 July 2005 to 30 June 2009. The current review will consider only that information which has significantly changed from the 2004/05 review for Gosford Council and Wyong Council.

1.2

Scope

The key objectives of the review are to assess:

- the prudence of operating expenditure for the 2005/06 financial year;
- the efficiency of any changes since the 2004/05 review to Council's estimates of operating expenditure for the period from 1 July 2006 to 30 June 2009;
- the prudence of capital expenditure for the 2005/06 financial year;
- the efficiency of any changes since the 2004/05 review to Council's estimates of capital expenditure for the period from 1 July 2006 to 30 June 2009 ("the price path period"); and
- the asset management system(s) being implemented by Council and proposed expenditure on further development of the asset management system(s).

IPART has also identified some specific issues that it will address during the current review including:

- Future water supply augmentation – water restrictions have been in force on the Central Coast since February 2002 and in recent months the volume of water in storage has continued a downward trend. Information provided by Gosford Council and Wyong Council indicates that lower than average rainfall is resulting in a short term supply/demand imbalance, however, IPART identified that there is also a longer term imbalance due to current extraction methods combined with ongoing population growth. The Councils are investigating alternative water supply augmentation options such as groundwater abstraction, transfer of bulk water from Hunter Water Corporation, and construction of a desalination plant. These options are all likely to have a significant effect on the prices set by the Tribunal.
- Water demand forecasting – the demand forecasts for the 2004/05 review incorporated water restrictions into the pricing assessment when this is not usual practice for the Tribunal, however, there were special circumstances for their inclusion. The Tribunal wishes to revisit the demand forecasts in light of any significant changes to the special circumstances that were in place for the 2004/05 review.
- Long Run Marginal Cost (LRMC) – the Tribunal wishes to investigate the option of determining a LRMC of supply in the Central Coast region given the potential availability of sufficient information for the calculation. This calculation represents a change in the method for determining prices and will obviously have an effect on the prices set.

- Funding arrangements for stormwater services – the Tribunal indicated in the 2004/05 review that it was not yet able to establish a clear relationship between revenue raised by stormwater drainage levies imposed by the Councils and associated stormwater drainage expenditure. The Tribunal wishes to set separate, cost reflective stormwater drainage charges in a similar manner to the prices set for water and wastewater services. This change will have a significant effect on the review of stormwater charges and the prices set.

1.3

Review Process

The review process for Wyong Shire Council has involved the following steps:

- *Inception meeting with IPART and Council.*
The Halcrow/MMA team met with representatives from IPART and Council to discuss the scope of the project and the proposed timetable for each stage.
- *Presentation by Council.*
Representatives from Council gave a short presentation providing some background to the current review and highlighting some of the major changes between their submissions for the 2004/05 review and the current review.
- *Preparation of Issues Report.*
Halcrow/MMA prepared an Issues Report that gave a summary of the major items that would be investigated in the current review. The items were identified after discussions with IPART and Council and reviews of Council's submission for the current review.
- *Preparation of Council Information Request.*
Halcrow/MMA prepared a Council Information Request that gave more specific details on the information that would be required from Council in order to undertake the current review.
- *Detailed Interviews with Council.*
The Halcrow/MMA team held detailed interviews with key Council staff to discuss the major changes in their submissions. Some additional information was requested during the interviews and this information was provided.
- *Preparation of Review Report.*
Council's submission for the current review was then examined in detail in the context of the key objectives of the review and was compared to the submission provided for the 2004/05 review. The results of this detailed investigation, and the previous stages of the review, were collated and

presented in a Draft Review Report. The findings as presented in the Draft Review Report were then discussed with both IPART and Wyong Council and, where appropriate, additional information assessed before presenting the final results of the investigation and Halcrow/MMA's recommendations in this Final Review Report.

2 Identification of Major Issues

2.1

General

This section outlines the issues we believe are the key changes between Council's previous and current submissions. This list of key changes has been derived from our detailed interviews with Wyong Council and from discussions with IPART.

The scope of the project, as detailed in **Section 1.2**, required that only the significant changes between the current submission and the previous 2004/05 submission be reviewed. IPART advised that the materiality of the change is the best method for determining if the change should be reviewed in detail. IPART also set a materiality threshold whereby if the change in the capital or operating expenditure for any single item/project exceeded \$40,000, then the item/project was to be considered in the current review.

A number of the major issues/projects considered in this review are identified as joint water supply (JWS) projects. This means that these projects are managed through the Gosford and Wyong Council's Water Authority (GWCWA). The costs for these projects, and hence the proposed expenditure, is shared between the two Councils in accordance with the Gosford/Wyong Councils' Water Authority Agreement 2000, "the GWCWA agreement". In most cases the capital costs are shared equally between the two Councils while the operating costs are shared on the basis of a defined formula that takes into account the proportional water usage.

2.2

JWS Desalination Project

The previous submission included significant expenditure for the investigation of desalination options to supplement the water supply for Gosford and Wyong. Capital expenditure was forecast over the previous price control period with the costs for the scheme estimated at \$50 million shared between the two Councils.

Wyong Council's current submission allows for a total of approximately \$350,000 in capital expenditure over 2005/06 and 2006/07, matched by an equal amount from Gosford Council. Discussions at the inception meeting with Council indicated that the planning approval for this project now resides with the Department of Planning as the project has been deemed to be of 'state significance'. Council has advised that the forecast expenditure on this project relates to pre-construction work only, as required to bring the project to a state

where consent to proceed has been given and construction can be commenced at short notice.

2.3

JWS Hunter Water Corporation Connection Project

In the previous submission, Council allowed a capital expenditure of \$250,000 in 2004/05 for works required to facilitate the transfer of water from the Hunter Water Corporation system. This allowance was matched by Wyong Council.

At the time of the previous submission, there was a degree of uncertainty associated with the project in respect to both its feasibility and the amount of water that would be available for transfer. There was, at the time, pressure on the Hunter system with declining storage levels and restrictions proposed to be introduced. The Councils and Hunter Water Corporation recognised the need to undertake additional investigations to ensure that the desired transfer capacity of 20ML/day was feasible.

The current submissions allows for a major increase in the forecast capital expenditure with a total of over \$9 million (with a matching contribution from Gosford Council) forecast by Wyong Council in 2005/06 and 2006/07. The increase is due to the proposed upsizing of the supply capacity to approximately 20ML/day. The results of studies underway at the time of the last review are also now available to guide the allocation of capital expenditure.

2.4

JWS Groundwater Extraction Project

The previous submission included significant expenditure for the development of groundwater supplies. Wyong Council allowed \$700,000 in capital expenditure over the period 2004/05 while Gosford Council allowed a total of approximately \$4 million in expenditure in 2004/05 to 2006/07.

The current submission includes a major increase in this expenditure. The project has been 'fast tracked' and expanded with an allowance of over \$12 million for Wyong Council (with an equivalent contribution by Gosford Council) over the period 2005/06 to 2007/08. Over 90% of the expenditure is programmed to occur in the first two financial years. For both Councils the actual total expenditure to date is over \$8.5 million.

2.5

Water Sharing Plans

The impact of water sharing plans is not obvious in Council's expenditure submission, however, we note that Council addressed the issue of water sharing plans in their written submission for the 2004/05 review.

2.6

Stormwater Charges

In the previous reviews, stormwater charges have generally not been considered in a separate pricing structure. For Wyong Council, there was no separate accounting for stormwater services. There is no drainage levy imposed with capital expenditure recovered from the water business, via the water and sewerage usage charge, and the operational expenditure paid for out of general council funds.

For the current submission, Wyong Council has provided details of capital and operating expenditure for the past and current financial years and have also provided details of expenditure forecasts. Council's expenditure forecasts for stormwater are grouped into two categories – "Future works (renewals/standards)" and "Future works (growth)" rather than being listed by project.

Wyong Council have indicated their intention to implement a new stormwater pricing policy and have, in the mean time, introduced an interim policy. Council's proposed interim policy is designed to have a neutral effect on the water and sewerage usage charge.

2.7

Trade Waste Charges

During the 2004/05 review, IPART set prices for trade waste charges for one year. Wyong Council has previously indicated they would undertake a major overhaul of the trade waste charging system and that they were proposing to introduce policies similar to the one in place at Sydney Water. The original timeframe for the implementation was for Council to introduce their system in 2006/07 and it appears that this timeframe is still valid.

2.8

Other Items

Wyong Council has indicated that they have made changes to a number of other items in their submissions (in addition to those listed above). The changes relate to variations in costs that are a result of CPI, salary changes, or revised or more accurate cost estimates for projects.

A full list of items included in Wyong Council's submission that satisfy IPART's materiality threshold (other than the major items considered above) has been provided by the Council and is summarised below in **Table 2-1**. Full details of the projects are included in **Appendix A**.

**Table 2-1 Capital Expenditure Items for Wyong Council Exceeding IPART
Materiality Threshold (Part A – Water Supply Projects)**

Expenditure Item	2004 Review (\$000, 2005/06)	2005 Review (\$000, 2005/06)	Difference (\$000, 2005/06)
WATER SUPPLY PROJECTS			
Refurbishment (Discretionary Standards)			
Reservoir – Repainting/ re-roofing	420	530	-110
Reservoirs – Other	0	56	56
Mains – rehabilitate steel mains	1,227	399	-828
Growth Contributions/Other			
Mains – Other	0	170	170
Pump Stations – Electrical refurbishment	436	532	96
Pump Stations – Other (critical spares)	0	160	160
General (Communications/Equipment) – refurbish telemetry	538	696	158
General (Communications/Equipment) – refurbish 2-way radio system	0	100	100
General (Communications/Equipment) – Other (office)	0	618	618
JWS Mardi Dam Raising	1,832	1,622	-210
JWS Mardi to Mangrove Transfer System	1,538	500	-1,038
JWS Project Management for Major Projects	0	1,637	1,637
Mains – Mardi/Warnervale trunk main	4,495	4,709	214
Mains – Section 94 works (by Council)	1,405	986	-420
Mains – Trunk main Gorokan to Norah Head	3,075	0	-3,075
Mains – Trunk main Gwandalan to Chain Valley Bay	0	0	0
Mains – trunk main Warnervale to Bushells Ridge	3,379	8,846	5,467
Mains – Entrance/North Entrance trunk main	410	700	290
Mains – Other	1,753	2,099	346
JWS Mardi High Lift Pump Station and Associated Works	3,835	8,825	4,990
JWS Mardi Dam Transfer System	4,114	9,500	5,386
JWS Mooney Mooney Transfer System Upgrade	1,910	645	-1,265
JWS Lower Wyong Transfer System Upgrade	2,623	2,900	277
Standards (All Classes)			
Treatment – Fishway-Upper Ourimbah Ck weir	308	116	-192
Treatment – Other (ultraviolet disinfection – effluent reuse)	0	400	400
Treatment – Other (activated carbon plant- Mardi)	0	200	200
Reservoir – Flowmeters	0	50	50
Mains/Pump Stations – General items	533	659	126
Unidentified works	3,921	8,602	4,681

Note: Costs provided for joint water supply projects (JWS) are shared between Gosford and Wyong Councils. (Sources – Wyong Council email dated 6 January 2006). We note that the item “Unidentified works” was not included in the information provided by Wyong Council. This item was identified from a review of Atkins’ recommendations and the current AIR/SIR.

**Table 2-2 Capital Expenditure Items Exceeding IPART Materiality Threshold
(Part B – Sewerage Projects)**

Expenditure Item	2004 Review (\$000, 2005/06)	2005 Review (\$000, 2005/06)	Difference (\$000, 2005/06)
SEWERAGE PROJECTS			
Refurbishment (Discretionary Standards)			
Treatment – General mechanical/refurbishment	202	256	54
Treatment – Replace fluid couplings - aerators (tank 3) Wyong Sth STW	0	71	71
Treatment – Civil refurbishment	81	150	69
Treatment – Flow meter refurbishment	328	295	-33
Treatment – Other	0	79	79
Mains – Sewer rehabilitation	1,222	1,117	-105
Mains – Other	0	208	208
General – Refurbish telemetry	398	592	194
General – Refurbish 2-way radio system	0	83	83
General – Mains power at Scaddens Ridge	0	315	315
General – Other	0	339	339
Growth Contributions/Other			
Treatment – Section 94 works (by Council)	4,526	3,496	-1,030
Treatment – Other	0	209	209
Pump stations – B3/B4 and rising main	200	1,792	1,592
Pump stations – B10 PS	0	0	0
Pump stations – B11/B13 PS	366	803	437
Pump stations – B5 PS and rising main	0	0	0
Pump stations – B6 PS and rising main	0	0	0
Pump stations – B7 PS elec/mech	0	0	0
Pump stations – B16	0	0	0
Pump stations – WS29/31 A/B elec/mech	0	89	89
Pump stations – MP5 elec/mech	0	0	0
Pump stations – WS9 PS/RM	414	667	253
Pump stations – other	771	1,040	269
Standards (All Classes)			
Treatment – Other	0	1,036	1,036
Treatment – WAS pits	0	119	119
Treatment – Replace aerators Wyong South	0	417	417
Treatment – Roadway Wyong South	0	238	238
Mains – Other	0	101	101
Pump stations – Other	0	83	83
Unidentified works	10,403	7,307	-3,096

Note: Item “Treatment – Other” under “Standards (All Classes)” has been adjusted to match the AIR/SIR as there was an error in the information supplied. (Sources – Wyong Council email dated 6 January 2006). We note that the item “Unidentified works” was not included in the information provided by Wyong Council. This item was identified from a review of Atkins’ recommendations and the current AIR/SIR.

3 Capital Expenditure

3.1

General

This section outlines the major capital expenditure items for Wyong Council that have been reviewed in detail including the major items identified in Section 2 and those items identified as exceeding the materiality threshold set by IPART (refer **Section 2.1** and **2.8**). The structure of this section is as follows:

- a brief overview of the information requirements for each item is provided;
- this is followed, in each case, by a comparison of the expenditure included in the 2004/05 review submissions to the expenditure proposed in the current review; and
- finally, a short discussion on the justification for the expenditure and our comments and recommendations is presented.

A decision on whether the proposed capital expenditure is considered prudent or appropriate requires a consideration of whether the expenditure is both necessary and cost effective, that is:

- firstly, that the expenditure is required to maintain the quality, quantity and reliability of the water, wastewater and drainage services provided by Wyong Council; and
- secondly, that the expenditure is a cost effective method of achieving these goals.

All cost values included in this section are, unless otherwise indicated, expressed as real values for the 2005/06 financial year.

3.2

JWS Drought Contingency Projects

A number of the water supply headworks projects being undertaken jointly by Gosford Council and Wyong Council under the direction of the GWCWA have been identified as drought contingency projects. These projects were initially identified for investigation and assessment in respect to their feasibility for augmenting the supply of water during the current period of ongoing drought.

The projects identified for investigation included the following:

- Construction of a desalination plant.
- Groundwater extraction.
- Transfer of water from the Hunter Water Corporation water supply system.

Council has indicated that, investigation results available at the time of the 2004/2005 submission were not conclusive, and that subsequent investigations have provided some better definition in respect to the development priorities assigned to each of these options. The uncertainty at the time of the previous submission contributed, in part, to IPART's decision to make a one year price determination at that time.

Council has now advised that whilst investigation and development of all three projects is still progressing, development of the groundwater extraction and Hunter Water Corporation connection projects are more advanced. As outlined in **Section 2.2**, the desalination project is currently progressing through the planning approval process and will not proceed further unless consent to proceed is given and water harvested from other sources is found to be inadequate to address the supply/demand imbalance.

At the time of preparing the current submission, it was anticipated that the groundwater extraction and Hunter Water Corporation connection projects would provide sufficient additional yield to address the imbalance, however, this is yet to be confirmed.

3.3

JWS Desalination Project

3.3.1

Information Requirements

The interviews focused on whether the forecast expenditure in the current submission was prudent and considered whether the project is still a priority, whether the consideration of the project as 'state significant' has any bearing on the forecast expenditure, and whether the timeframe for the project requires adjustment. Specifically the information requested included the following:

- Latest planning/strategy reports on the project.
- Details of feasibility assessment that priorities the development of alternative water sources.
- Details of the involvement of both Council and the Department of Planning in the planning approval process.
- Details of proposed expenditure over the price path period.
- Detailed justification of proposed expenditure, that is, correlation of expenditure with proposed investigations / strategy studies.
- Details of the expected program for project.

3.3.2

Expenditure Comparison

Table 3-1 below shows the adjustment in the proposed expenditure between the 2004/05 review and the current review.

Table 3-1 Expenditure Comparison for Wyong Council's 2004/05 to 2005/06 Submissions - Desalination Project

Expenditure (\$'000 2005/06)	Actual	Forecast				
Submission	2004/2005	2005/2006	2006/2007	2007/2008	2008/2009	Total Forecast
2004/2005 Review (\$'000 2004/05)	750	7,500	11,750	5,000	0	24,250
Adjusted 2004/2005 Review	769	7,688	12,044	5,125	0	24,857
2005/2006 Review	1,761	250	100	0	0	350
Difference	992	-7,438	-11,944	-5,125	0	24,507

Note: All figures are (2005/06 \$'000s) values except original 2004/05 Review figures, which are included as (2004/05 \$'000s) values for reference purposes only.

Escalation rate of 2.5% applied has been applied to original 2004/05 Review figures to provide Adjusted 2004/05 Review figures in (2005/06 \$'000s) values.

3.3.3

Comments/Recommendations

There is a significant change in the proposed capital expenditure for this project from the 2004/05 review to the 2005/06 review with Wyong Council's proposed expenditure over the price path period decreasing from over \$24.9 million to \$0.35 million. Council has advised that the primary reasons for the change are the outcomes of the investigations undertaken since the 2004/05 submission and the need to refer the project to the Department of Planning for planning approval as the project has been designated a project of 'state significance'.

The GWCWA has determined that development approval for the project will still be sought from the Department of Planning and, if provided, a decision will then be made as to whether the project is still required. The Councils have reiterated their desire to progress the pre-construction aspects of the project, however, they have stated that the project would only proceed in the event of the current drought continuing and water storage levels continuing to decline.

Given this continuing uncertainty over the project, the Wyong Council have decided not to include the costs for construction and operation of the desalination project in their 2005/06 submission. This decision has been recorded in several documents supplied by Wyong Council including:

- Gosford-Wyong Councils' Water Authority Technical Advisory Group - Summary Advice '*Contingency Supply Contributions – Groundwater, Hunter Connection and Desalination*' (undated report supplied by Wyong Council).

- Gosford-Wyong Councils' Water Authority Technical Advisory Group - Summary Advice *WaterPlan 2050 – Long Term Water Supply Strategy* (report dated 16 November 2005 supplied by Wyong Council).

The decision is also consistent with the outcomes of the 2004/05 review which recommended that the proposed capital expenditure included in Council's submission be deferred as "the need for, the scope and timing of a desalination plant is not conclusive" (Atkins/Cardno, 2005).

There was, however, some capital expenditure amounting to just over \$1.76 million incurred by Wyong Council in 2004/05. As this project is a joint water supply project, it is appropriate to note that Gosford Council identified actual expenditure of over \$7,200 on this project for 2004/05. This is slightly unusual as the costs for joint water supply projects would generally be shared equally between the two Councils in accordance with the GWCWA agreement.

Wyong Council (who are leading this JWS project) have provided information in response to the draft report indicating that, while the actual expenditure for some of the joint water supply projects may differ between the Councils, this difference is reconciled at regular periods with the balancing funds transferred between the Councils as required to maintain the equal cost sharing agreement. These changes are reflected in the Council's revenue rather than the capital expenditure records.

There is also proposed capital expenditure of \$350,000 over the price path period, as outlined in **Table 3-1** above. This is matched in Gosford Council's submission by another \$350,000 of proposed expenditure. The Councils' submissions indicate that this has been set to cover on-going pre-construction activities to get the project to a stage where construction can commence upon approval from the Department of Planning and the GWCWA Board.

Wyong Council has provided further information in response to the draft report advising that the expenditure will essentially bring the desalination project to the stage of legal commencement whereby the Councils retain the right to go ahead with the works without necessarily commencing construction work immediately. This would allow the Councils to keep the project as an alternative water supply source should it be needed if water storage levels continue to decline, however, it should be noted that a lead time of 18 months to 2 years is required to construct the proposed desalination facility.

We are of the same view as the recommendations of the 2004/05 review that the removal of the construction and operating costs for the desalination plant is prudent given the referral to the Department of Planning for planning approval

and the uncertainty over whether the project will still be required as a drought contingency response.

With respect to the proposed capital expenditure of \$350,000 over the review period, we were originally of the view that this expenditure is not considered prudent or appropriate at this stage. We believed that the desalination project, as described above, is no longer the preferred drought response/contingency option and by the Council's own reports the medium term shortfall between supply and demand could have been met from other more cost effective sources such as the Wyong-Mardi scheme and the Mangrove to Mardi transfer system.

However, further information supplied by the Councils in response to the draft report indicated that the decline in water storages had continued with no recovery from some recent short periods of rainfall. Council further clarified that the actual pumping rates from the groundwater extraction bores were about half the expected yields. This new information, combined with clarification that other potential water supply sources (the Mardi/Mangrove transfer system projects) are reliant on run-of-river flows, has led us to revise our recommendation in respect to the desalination project.

We are now of the view that the additional expenditure required to enable the desalination project to be brought to a stage of legal commencement is appropriate given the current circumstances faced by Council.

Recommendations

In our view, the desalination project is still not our preferred response to the current water supply/demand imbalance and this is consistent with the views expressed in the 2004/05 review (Atkins/Cardno, 2005), the various Council Technical Advisory Group and Board reports, and the Councils' submissions for the current review.

We agree that the capital cost of the project should be deferred, however, we recommend that the remaining expenditure on the project should be allowed as proposed in the Council's submission for the reasons outlined above.

Expenditure (2005/06 \$'000s)	2005/2006	2006/2007	2007/2008	2008/2009
Desalination	250	100	0	0

3.4

JWS Hunter Water Corporation Connection Project

3.4.1

Information Requirements

The interviews took into account the comments made in the previous consultants report as to whether the project is deemed to be required given increased supply from groundwater sources and the scope for further demand management measures to limit the increases in demand. The report on the investigation of the connection was also reviewed to determine the justification for the project. The forecast operating expenditure is based on a current water cost of \$0.94/kL for 2005/2006 and up to 31 December 2006, a revised cost of \$0.79/kL from 1 January 2007 and rising to \$0.80/kL in 2007/08 and \$0.82/kL in 2008/2009. The interviews assessed the basis of these pricing assumptions and whether any formal agreements have been made with Hunter Water Corporation.

Specifically the information requested included the following:

- Latest planning/strategy reports in respect to the project, especially covering the potential sources of water.
- Details of proposed expenditure over the price path period.
- Details of any agreements with Hunter Water Corporation regarding the price and volume of water to be supplied, responsibility for capital expenditure on the connection and responsibilities for ongoing operation and maintenance of the connection.

3.4.2

Expenditure Comparison

Table 3-2 below shows the adjustment in the proposed expenditure between the 2004/05 review and the current review.

Table 3-2 Expenditure Comparison for Wyong Council's 2004/05 to 2005/06 Submissions - Hunter Water Connection Project

Expenditure (2005/06 \$'000s)	Actual	Forecast				
Submission	2004/2005	2005/2006	2006/2007	2007/2008	2008/2009	Total Forecast
2004/2005 Review (2004/05 \$'000s)	250	0	0	0	0	0
Adjusted 2004/2005 Review	256	0	0	0	0	0
2005/2006 Review	947	5,159	3,826	0	0	8,985
Difference	691	5,159	3,826	0	0	8,985

Note: All figures are (2005/06 \$'000s) values except original 2004/05 Review figures, which are included as (2004/05 \$'000s) values for reference purposes only.

Escalation rate of 2.5% applied has been applied to original 2004/05 Review figures to provide Adjusted 2004/05 Review figures in (2005/06 \$'000s) values.

3.4.3

Comments/Recommendations

There is a significant change in Wyong Council's proposed capital expenditure for this project from the 2004/05 review to the 2005/06 review with no proposed expenditure included in the 2004/05 review submission but a total capital expenditure of over \$8.9 million in the 2005/06 submission. Council has advised that the 2004/05 submission included some expenditure in 2004/05 for obtaining up to 6 ML/day whereas the 2005/06 submission has included significant expenditure in order to obtain the desired transfer capacity of 20 ML/day.

The works completed to date have been undertaken by Wyong Council with actual expenditure of over \$0.9 million in 2004/05 while there has been no recorded expenditure to date on this project by Gosford Council. This again is slightly unusual given that we would expect the capital costs to be shared equally as per the GWCWA agreement. Wyong Council (who are managing this JWS project) have, however, provided additional information indicating that although the actual expenditure differs between the Councils, this difference is reconciled at regular periods to reflect the Council's equal cost sharing agreement.

The forecast expenditure over the price path period covers Wyong Council's cost contribution to the design and construction of the major transfer system.

We have received and reviewed a number of documents in respect to this project that have quantified the proposed costs and timeframes for the various stages in the project including:

- Gosford-Wyong Councils' Water Authority Technical Advisory Group - Summary Advice '*Contingency Supply Contributions – Groundwater, Hunter Connection and Desalination*' (undated report supplied by Wyong Council).
- Gosford-Wyong Councils' Water Authority Technical Advisory Group - Summary Advice '*WaterPlan 2050 – Long Term Water Supply Strategy*' (report dated 16 November 2005 supplied by Wyong Council).
- Gosford-Wyong Councils' Water Authority Technical Advisory Group - Summary Advice '*Progress Report on Capital Improvement Works*' (undated report supplied by Wyong Council).
- Memorandum of Understanding Relating to Bulk Water Transfer Scheme (agreement dated 22 November 2005 between Hunter Water Corporation, Wyong Shire Council and Gosford City Council - supplied by Wyong Council).

Additionally, the Department of Commerce has undertaken a review of water supply options, including the Hunter Water connection in the preparation of the WaterPlan 2050 document. We have also reviewed the recommendations from the

2004/05 review as a comparison between the recommended capital expenditure and Council's submission to the current review.

Wyong Council has included a proposed capital expenditure of just under \$9 million which, combined with Gosford Council's equivalent proposed expenditure of just under \$9 million, leads to a total proposed capital expenditure for this project of just over \$17.9 million. This is consistent with the figures that are reported in the documents listed above, but is slightly less than the figure provided by Wyong Council, after the detailed interviews, of \$18.1 million (Wyong Council email dated 6 January 2006).

The amounts allowed also differ from those included in the recommendations of the 2004/05 review where it was suggested that a total capital expenditure of approximately \$15 million should be allowed. This figure was thought to be "an appropriate level of cost, shared between Gosford Council and Wyong Council, to fund a link scheme with Hunter Water Corporation in the price control period" (Atkins/Cardno, 2005).

Wyong Council have indicated that a large project team has been set up to manage this JWS project.

The Memorandum of Understanding between the Councils and Hunter Water Corporation provides additional details on the joint Councils' contributions:

• Teralba Pump Station upgrade	\$ 0.70 million
• Rathmines water main upgrade	\$ 0.53 million
• Wangi water main upgrade	\$ 5.28 million
• Morisset pump station and water main to Kiar Reservoir	\$11.46 million
• Total Contribution	\$17.97 million

The costs shown above are shared equally between Gosford Council and Wyong Council. In general discussions, both Gosford Council and Wyong Council have indicated that the proposed capital expenditure forecasts are developed from a combination of staff knowledge and experience, previous contracts, external consultants' reports, and actual tender submissions.

Wyong Council provided additional information on the breakdown of costs for the proposed expenditure and a monthly expenditure projection for the works. Of concern to us is that the information provided indicated that it is likely the proposed expenditure listed above will increase. Council did not provide any further details on any potential expenditure increases and, as such, we have not considered this further. We also note that Council provided information on

significant cost increases for the “Mains – Trunk Main Warnervale to Bushells [Kiar] Ridge” project (refer **Section 3.8.2**) which they have nominated as a closely related project.

In reviewing whether the proposed capital expenditure is both necessary and appropriate, we acknowledge the following circumstances:

- The drought currently being experienced over the Central Coast area has been described as the worst drought on record and storage levels are at alarmingly low levels.
- The Councils’ normal water supplies are predominantly reliant on run of river flows which are significantly affected by drought.
- The characteristics of the joint water supply catchments are such that only a significant period of sustained wet weather is likely to have a dramatic impact on storage levels.
- The development process for the drought contingency projects has been fast-tracked due to the urgency of the conditions.
- The Councils have developed a cost sharing arrangement with Hunter Water Corporation to assist in the development of the project.

We also understand that there is future potential to transfer water back to the Hunter system, if storage levels permit, thereby providing further options for the longer term balance of water resources on the Central Coast.

We agree with the recommendations of the 2004/05 review and subsequent Council investigations that indicate:

- This project is a prudent option to address the water supply shortages of the current drought.
- This project is a conventional option, is able to be implemented in less time than other options such as the desalination option and has a lower on-going operational cost (and cost of water) than other options.

On this basis we agree that the proposed capital expenditure in the Councils’ submissions be allowed.

Recommendations

In our view, the Hunter Water connection project is considered necessary as a short term response to the continuing drought and the proposed capital expenditure is appropriate. The project can provide short term benefits and also fits in well with longer term strategies.

We recommend that the proposed capital expenditure in Council's submission remain unchanged as follows:

Expenditure (2005/06 \$'000s)	2005/2006	2006/2007	2007/2008	2008/2009
Hunter Connection	5,159	3,826	0	0

3.5

JWS Groundwater Extraction Project

3.5.1

Information Requirements

The interviews considered whether the forecast expenditure on groundwater supplies is prudent and efficient given the current situation with the drought in the area, the available alternative supplies, and the projected increases in supply to be obtained. Specifically the information requested included the following:

- Latest planning/strategy studies on the project.
- Details of and justification for the forecast expenditure on exploration for future resources and the exploitation of current resources.
- Details for the justification of exploration areas and reconciliation of expenditure against achieved outcomes, that is, water yields identified or developed.
- Details of any cost benchmarking done to review the expenditure proposed, that is, against other similar groundwater exploration programs or against the estimates listed in the consultant reports.

3.5.2

Expenditure Comparison

Table 3-3 below shows the adjustment in the proposed expenditure between the 2004/05 review and the current review.

Table 3-3 Expenditure Comparison Wyong Council's 2004/05 to 2005/06 Submissions - Groundwater Project

Expenditure (2005/06 \$'000s)	Actual	Forecast				
Submission	2004/2005	2005/2006	2006/2007	2007/2008	2008/2009	Total Forecast
2004/2005 Review (2004/05 \$'000s)	700	0	0	0	0	0
Adjusted 2004/2005 Review	718	0	0	0	0	0
2005/2006 Review	3,584	6,500	4,350	1,000	0	11,850
Difference	2,866	6,500	4,350	1,000	0	11,850

Note: All figures are (2005/06 \$'000s) values except original 2004/05 Review figures, which are included as (2004/05 \$'000s) values for reference purposes only.

Escalation rate of 2.5% applied has been applied to original 2004/05 Review figures to provide Adjusted 2004/05 Review figures in (2005/06 \$'000s) values.

3.5.3

Comments/Recommendations

There is a significant change in the proposed capital expenditure for this project from the 2004/05 review to the 2005/06 review with a significant ramp-up of costs over each of the years in the review period. For Wyong Council there was no allowance in the previous submission while the current figure is just over \$11.8 million. Gosford Council (who are responsible for this JWS project) has advised that the reasons for this expenditure change are that the previous estimates were only preliminary due to the need to fast-track the project. Gosford Council also advises that the Department of Natural Resources has placed additional works/requirements on Council related to environmental impact assessment and monitoring and groundwater yield studies.

Wyong Council recorded an actual expenditure of over \$3.5 million in 2004/05 while Gosford Council included actual expenditure of almost \$5.1 million in their submission for the same period. This is again slightly unusual given that we would expect that capital costs would be shared equally as per the GWCWA Agreement. Gosford Council have, however, provided additional information indicating that although the actual expenditure differs between the Councils, this difference is reconciled at regular periods to reflect the Councils' equal cost sharing agreement.

The forecast expenditure of \$11.8 million would cover Wyong Council's contribution to the implementation of the groundwater scheme. Gosford Council's contribution to the scheme is also just over \$11.8 million reflecting the equal cost sharing agreement in place.

There are a number of documents on this project that have been supplied by the Councils including:

- Gosford-Wyong Councils' Water Authority Technical Advisory Group - Summary Advice '*Contingency Supply Contributions – Groundwater, Hunter Connection and Desalination*' (undated report supplied by Wyong Council).
- Gosford-Wyong Councils' Water Authority Technical Advisory Group - Summary Advice '*WaterPlan 2050 – Long Term Water Supply Strategy*' (report dated 16 November 2005 supplied by Wyong Council).
- Gosford-Wyong Councils' Water Authority Technical Advisory Group - Summary Advice '*Progress Report on Capital Improvement Works*' (undated report supplied by Wyong Council).
- Gosford-Wyong Councils' Water Authority Technical Advisory Group - Summary Advice '*Contingency Plan – Use of Groundwater*' (undated report supplied by Wyong Council).

Additionally, the Department of Commerce has undertaken a review of water supply options, including this groundwater option in the preparation of the WaterPlan 2050 document. We have also reviewed the recommendations from the 2004/05 review as a comparison between the recommended capital expenditure and Council's submission to the current review.

The combined proposed capital expenditure for this project is over \$23.7 million not including the combined actual expenditure in 2004/05 of over \$8.6 million. The *'Contingency Plan – Use of Groundwater'* document supplied by Wyong Council provides a relatively recent project budget cost of just over \$23 million and an "estimated strategic final budget cost range" of \$26.8 to \$33.8 million.

The document also indicates that there have been some additional requirements placed on the project by the Department of Natural Resources that have resulted in much higher costs than expected. There is a lack of existing information on groundwater resources in the area that will allow the Department to make an assessment of sustainable yields. Consequently, the groundwater investigation program is also being used as a data collection process. The Councils have been required to undertake the following additional works over a 12 month testing period:

- Installation of groundwater monitoring bores to determine potential yields - approximately 110 investigation bores will be drilled with approximately 2-3 monitoring bores installed for each production bore.
- Engagement of specialist consultants to undertake investigations on the local ecology, surface water quality and quantity assessments, and flora and fauna surveys. Data logging is being undertaken with data submitted regularly to the Department of Natural Resources.

It is also possible that the monitoring requirements from the initial testing period may be extended long term which will then have an effect on operating costs.

Gosford Council, who are at present leading the project, have set up a specific project team to manage the project and have also engaged a number of specialist hydrogeologists and other experts to provide advice on the location of investigation bores and the potential yields available.

We are satisfied that the appropriate processes have been followed to fast track this project and that the proposed capital expenditure is both necessary and appropriate. The recommendations of the 2004/05 review also supported the implementation of the project. We recognise that there are external factors imposing on the project that are having a major impact on the actual costs and the proposed expenditure.

Gosford Council provided an update on the project subsequent to issue of the draft report indicating that the yields obtained from the newly installed groundwater bores are much lower than expected. As a result, the expected total yield from groundwater has been halved. The costs for the project have not changed, however, and this has meant that the unit price of the water has jumped significantly and, while still lower than the desalination option, is now higher than the water supplied from the Hunter Water Connection.

Recommendations

In our view the groundwater projects are considered necessary as a short term response to the continuing drought and the proposed capital expenditure is appropriate. The project has the shortest lag time to provide water supply to the system and also has a relatively low capital and operating cost for the volume of water supplied.

We recommend that the proposed capital expenditure in the Council's submission be accepted as follows:

Expenditure (2005/06 \$'000s)	2005/2006	2006/2007	2007/2008	2008/2009
Groundwater	6,500	4,350	1,000	0

3.6

Water Sharing Plans

3.6.1

Information Requirements

The interviews considered whether the impacts of proposed water sharing plans have been adequately covered in the planning for future water yields. The proposed implementation timing for the plans, relevant to Council, was also reviewed. Specifically the information requested included the following:

- Studies/investigations into the impact of the water sharing plans on Council's available water resources.
- Project program for implementation of plans.

3.6.2

Comments/Recommendations

The issue of water sharing plans and their potential impact on Wyong Council was discussed during the detailed interviews. Additional information on the proposed impacts of the plans was also provided within other documents supplied by both Gosford Council and Wyong Council, including the Gosford-Wyong Councils' Water Authority Technical Advisory Group – Summary Advice *'WaterPlan 2050 - Long Term Water Supply Strategy'* (report dated 16 November 2005 supplied by Wyong Council).

The impact of the water sharing plans will generally be to reduce the two Councils' access to low flows in the rivers and creeks that are used as water sources. A Water Sharing Plan is in place for Ourimbah Creek and a draft plan covering the Wyong River, Mangrove Creek and Mooney Mooney Creek has been released for comment.

The Councils and the Department of Natural Resources are working together on the draft plan to ensure that, while the objectives of the plans are met, the security of the water supply system is not compromised.

The long term impact of the water sharing plans on Council's water supplies is expected to be fairly significant with the initial draft plans potentially resulting in a 30% reduction in yields. The impact of the plans on capital expenditure within the review period is likely to be minor, however, Council has indicated that the impacts will need to be factored into their long term capital works.

We are satisfied that the impact of the water sharing plans on the current price path period is minimal and the future impact of yield reductions will be taken into account by Wyong Council in preparing its capital works strategies.

3.7

Stormwater Charges

3.7.1

Information Requirements

The interviews considered, in detail, the transfer of responsibility of the stormwater system from the general council business to the water and wastewater business group. Details of the ownership of assets, responsibilities for capital and operating expenditure, and corporate costs allocated to stormwater were considered during the interviews. Specifically the information requested included the following:

- Details of the transfer of previous capital and operating expenditure and one-off payments to the current and proposed capital and operating expenditure for stormwater.
- Details of impacts of the State Government's new \$25/property drainage levy on proposed expenditure.
- Details of Memorandum of Understanding or other service agreements detailing various responsibilities for stormwater system assets and expenditure.

3.7.2

Expenditure Comparison

Wyong Council has advised that it is currently developing a formal stormwater pricing system in line with the recommendations of the 2004/05 review and subsequent IPART reports, and that the proposed implementation date for the

system will be July 2006. Council has proposed an interim, revenue-neutral arrangement to clearly identify stormwater revenue and expenditure.

Council has advised that the majority of stormwater works are partly or fully funded by developers using a drainage levy contribution under Section 94 of the EP&A Act. While this is inconsistent with the approach required by IPART for water and sewerage, Council advise that they are gradually converting the system to the required format. Council have advised that the earliest date that a full conversion could occur would be 1 July 2008.

In previous submissions, Wyong Council has allocated proposed expenditure to specific stormwater projects however the allocation often does not correspond to the actual expenditure incurred. In the current submission, Wyong Council has grouped the stormwater expenditure together under two items – “Future Works (renewals/standards)” and “Future Works (growth)”.

Table 3-4 shows the total proposed capital expenditure for stormwater works over the review period.

3.7.3

Comments/Recommendations

There are some significant differences between Wyong Council’s proposed expenditure requirements submitted in 2004/05 and those submitted for the current review. Overall, the difference in the proposed capital expenditure over the review period is just over \$2.5 million and the difference in the actual expenditure in 2004/05 is almost \$4.5 million.

There are also some major differences between the figures in the AIR/SIR (as listed in **Table 3-4**) and Council’s written submission to IPART. The written submission states that Council is funding just over \$7.0 million in drainage expenditure in 2005/06 (over \$2 million less than AIR/SIR) and is projecting expenditure of just over \$7.2 million in 2006/07 (over \$1.0 million less than AIR/SIR). For the purposes of this review, and for consistency, we have assumed that the figures provided in the AIR/SIR spreadsheets are correct.

In determining whether the proposed capital expenditure is appropriate we have reviewed the comments and recommendations made for the 2004/05 review. The consultants, Atkins/Cardno, indicated that Wyong Council were also proposing large step jump in the capital expenditure for stormwater that was not in line with historical capital expenditure. Our review of the AIR/SIR submissions identified that actual expenditure over 2000/2001 to 2004/2005 has been about \$4.5 million per year.

Table 3-4 Proposed Expenditure for Stormwater Works for Wyong Council for 2005/2006 to 2008/09

Expenditure (2005/06 \$'000s)	Actual	Forecast				
Submission	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009	Total
2004/05 Review (\$ 2004/05)						
Standards (Discretionary Standards/Mandatory)						
Various projects (Discretionary Renewal)	5,424	2,946	2,874	2,804	2,736	11,361
Various projects (Mandatory Enviro)						
Growth (Contributions/Other)						
Warnervale Road culvert/water quality facility	898	887				887
Tuggerah Detention pond/wetlands	667	405				405
Pacific Highway culverts/channel	565					0
Other	1,315					0
Unidentified works		4,576	4,885	4,947	5,007	19,414
2004/05 Review (\$ 2005/06)						
Standards (Discretionary Standards/Mandatory)						
Various projects (Discretionary Renewal)	5,560	3,020	2,946	2,874	2,804	11,645
Various projects (Mandatory Enviro)	0	0	0	0	0	0
Growth (Contributions/Other)						
Warnervale Road culvert/water quality facility	920	909	0	0	0	909
Tuggerah Detention pond/wetlands	684	415	0	0	0	415
Pacific Highway culverts/channel	579	0	0	0	0	0
Other	1,348	0	0	0	0	0
Unidentified works	0	4,690	5,007	5,070	5,132	19,900
Total 2004/05 Review	9,091	9,034	7,953	7,945	7,937	32,869
2005/06 Review						
Standards (Discretionary Standards/Mandatory)						
Total works	3,428					
Growth (Contributions/Other)						
Total works	1,179					
2005/06 Renewals/Standards		4,830				
2005/06 Growth		4,308				
Future works (renewals/standards)			2,946	2,874	2,804	8,625
Future works (growth)			5,104	5,163	5,220	15,487
Total 2005/06 Review	4,606	9,138	8,051	8,037	8,024	33,250
Difference	-4,484	104	98	92	87	381

We are inclined to agree with Atkins/Cardno's comments that they had not seen the evidence to justify a step change in expenditure. Council have also made it harder to assess the proposed capital expenditure by grouping the expenditure into the two items – renewals/standards and growth. This grouping also makes the future assessment of capital efficiencies and achievement of outputs harder to undertake as no information is available for specific projects.

Wyong Council provided additional information in response to the draft report indicating that the proposed increases in expenditure in the past two submissions are the result of variations in growth related expenditure. Council has stated that the growth related/developer funded projects are uncertain in terms of timeframe and expenditure and the drivers are often outside of Council's control. Council has further stated that past expenditure may not be a reliable guide to future expenditure.

While we acknowledge that Council's statements are reasonable, we note that the historical expenditure on stormwater each year from 2000/2001 to 2004/2005 has, on average, been within 10% of the historical average. We would suggest that an expenditure trend remaining within a 10% band of the historical average will likely be fairly indicative of future expenditure. In comparison, we note that the average of Council's proposed expenditure on stormwater is approximately 185% of the historical average.

We support the proposed interim arrangements Council has introduced for the current review and support the implementation of a formal system as soon as practicable. However, we cannot support Council's major increase in stormwater expenditure as we still do not see any firm justification for the increase. The historical trend is, in our opinion, fairly reliable and we would propose to recommend expenditure that generally follows this trend.

We recognise, however, that Wyong Council is a growth area and is likely to require an increasing level of expenditure for stormwater projects. We note that the current trend of expenditure, based on historical figures, sees the expenditure growing by approximately 2.5% each year. We propose a cumulative growth rate of 10% each year for the expenditure to account for inflation, provide a level of expenditure likely to meet expected growth, and to reflect that, based on past actual expenditure, Council will need to significantly increase its project management and planning performance in order to achieve the proposed expenditure.

We also recognise that our recommended capital expenditure is less than that recommended by Atkins/Cardno in the 2004/05, however, we believe in this case

that this allowance is somewhat generous based on Council's previous performance and historical actual expenditure.

Recommendations

In our view, the proposed capital expenditure on stormwater for the current review is not appropriate. It is not consistent with historical averages and adequate justification has not been provided for the proposed major increase in expenditure. We propose that the allowable capital expenditure for stormwater works be as outlined in the table below, which includes allowance for a cumulative growth of 10% per year.

Expenditure (2005/06 \$'000s)	2005/2006	2006/2007	2007/2008	2008/2009
Stormwater	5,067	5,573	6,131	6,744

3.8

Trade Waste Charges

3.8.1

Information Requirements

The interviews considered the implementation of the trade waste pricing system and whether the trade waste pricing has become, or is likely to become, a major cost driver in the future. The cost of implementation was investigated and on-going system operation costs were identified. Specifically the information requested included the following:

- Internal reports on the implementation of the trade waste pricing system, the proposed prices, and details of the cost of implementing the system and on-going operational costs.
- Details of how the costs identified have been included in the expenditure submissions.

3.8.2

Comments/Recommendations

Wyong Council have advised that they are implementing a new trade waste system based on the Department of Energy, Utilities and Sustainability (DEUS) Trade Waste Model Policy and Best Practice Pricing. Council advises that the DEUS policy is similar to the system Council previously had in operation.

Council have raised concerns about certain aspects of the trade waste system including penalty charges. Council advises that IPART has acknowledged the potential community impact of the new system and investigations are continuing to implement the new system with the least impact to customers.

Council have advised that the proposed trade waste system will be introduced in 2006/07 with the majority of charges to be implemented immediately. However,

Council proposes that the trade waste usage charge be introduced progressively over three years from 2006/07 to 2008/09.

Discussions with Council have indicated that the trade waste system is not likely to be a major cost driver for Council over the price path period.

3.9

Other Items

3.9.1

Overview

IPART has set a materiality threshold to identify those capital and operating expenditure items that require specific review. Wyong Council has provided a substantial list of items as summarised in **Table 2-1** and presented in detail in **Appendix A**. A brief explanation for each of the items identified, together with our comments and recommendations in respect to the proposed changes, are outlined in **Sections 3.9.2** and **3.9.3**.

3.9.2

Water Projects

- ***Reservoir – Repainting/Re-roofing*** – the proposed capital expenditure for this item has increased from \$0.45 million to \$0.53 million. Council has advised that the change is a result of works being brought forward from 2010/2011 to 2005/06. These works were identified through the on-going condition monitoring of assets, with the capital cost refined from a long term planning estimate to a pre-construction budget estimate.

A review of the AIR/SIR indicates that, in general, a fixed amount of around \$100,000 is set aside for this item each year. Presumably this figure has been set by Council to be sufficient to cover the required works each year. The proposed expenditure increase is more than double the amount normally set aside.

Council provided additional information in response to the draft report stating that they disagreed with the logic of disallowing final expenditure on the basis that the expenditure exceeds earlier estimates. This was not, however, the primary reason the expenditure for this item was adjusted.

We are of the opinion that the expenditure for this item should be set using one of two methods:

- An ongoing program of expenditure that is set at an amount which will cover the ongoing expected costs for the item. The expenditure would be set at a fixed annual amount based on the average of historical actual expenditure or estimates of future costs spread over the review period.

- A number of set expenditure values based on planned projects. The expenditure would vary each year based on the projects that require completion in each year and would be set based on a forward capital works program.

Council appears to be using a combination of the two methods by setting a fixed amount each year, but then revising the program at the start of the review period by identifying and re-estimating specific projects.

We believe that the normal expenditure set aside for this item should be sufficient to cover the required works. If works are required to be brought forward as a special item then these should be accommodated within the existing program. We do not believe that the ongoing program requires additional funds and recommend that the expenditure remain at the original levels.

After reviewing the information provided by Council in response to the draft report, we reiterate our original recommendation that the normal expenditure set aside for this item should be sufficient to accommodate the specific project being brought forward. We would recommend that Council decide if they wish to maintain the expenditure as part of an ongoing program or whether they wish to identify specific projects for each year and only include expenditure sufficient to complete those projects.

Recommendation

We recommend that the proposed expenditure for the item Reservoir - Repainting/Re-roofing be adjusted to match the original proposed expenditure for 2005/06, as included in the 2004/05 submission.

Expenditure (2005/06 \$'000s)	2005/2006	2006/2007	2007/2008	2008/2009
Reservoir – Repainting/Re-roofing	133	98	97	98

- ***Reservoirs – Other*** – this item of proposed capital expenditure is new for this submission, although there is a history of expenditure averaging about \$105,000 per year for this item over the past few years. The proposed expenditure is \$52,000 and Council advises that this is related to the installation of level detectors. The need for these works has been identified as a result of on-going condition monitoring and field reports.

As the proposed expenditure is well within the average expenditure on this item over the past few years and has been identified through an on-going monitoring program, we accept that this expenditure is necessary and appropriate and recommend that it be allowed.

Recommendation

We recommend that the proposed expenditure for the item Reservoir - Other be accepted as detailed below:

Expenditure (2005/06 \$'000s)	2005/2006	2006/2007	2007/2008	2008/2009
Reservoir – Other	56	0	0	0

- ***Mains – Rehabilitate Steel Mains*** – the proposed capital expenditure for this item has reduced from over \$1.23 million to less than \$0.40 million. Council have advised that the reason for this reduction is due to lower than expected actual expenditure on recent rehabilitation works.

The 2004/05 submission included expenditure averaging about \$300,000 per year whereas the current submission has this figure reduced to \$100,000. We accept the proposed reductions as they are based on actual construction costs and represent good practice in using actual figures to update forecasts.

Recommendation

We recommend that the proposed expenditure for the item Mains - Rehabilitate Steel Mains be accepted as detailed below:

Expenditure (2005/06 \$'000s)	2005/2006	2006/2007	2007/2008	2008/2009
Mains – Rehabilitate Steel Mains	100	100	100	100

- ***Mains – Other*** – the proposed expenditure for this item is new and was not forecast in the 2004/05 submission. Council has advised that this item covers items such as pipeline crossing supports that have been identified as a result of on-going condition monitoring and inspections.

A review of the AIR/SIR indicates that there has been no expenditure on this item since at least 2002/03. This also appears to be a once-off expense as the proposed expenditure occurs only in 2005/06. We are prepared to accept this expenditure on the basis that it is a once off expense and that it has been identified through an on-going condition monitoring program.

Recommendation

We recommend that the proposed expenditure for the item Mains – Other be accepted as detailed below:

Expenditure (2005/06 \$'000s)	2005/2006	2006/2007	2007/2008	2008/2009
Mains – Other	170	0	0	0

- ***Pump Stations – Electrical Refurbishment*** – the proposed expenditure for this item has been reported (in information supplied by Wyong Council – email dated 6 January 2006) to increase from \$436,000 to \$532,000. The explanation provided for this increase was that the forward program for electrical refurbishments had been reviewed and that increased expenditure would be required in this area.

A review of the AIR/SIR, however, indicates that the proposed expenditure during the period 2005/06 to 2008/09 has actually decreased from \$420,000 to \$407,000. The total proposed expenditure over 2005/06 to 2009/2010 has changed from about \$430,000 to \$506,000. This indicates that there has been slippage in the proposed program, which is supported by the actual expenditure data. In 2004/05 the proposed expenditure was \$190,000 whereas the actual expenditure was only just over \$5,000.

For the purposes of this review we are only considering the expenditure in the period 2005/06 to 2008/09 during which the proposed expenditure has reduced. We accept this reduction over this period as the allowable capital expenditure.

Recommendation

We recommend that the proposed expenditure for the item Pump Stations - Electrical Refurbishment be accepted as detailed below:

Expenditure (2005/06 \$'000s)	2005/2006	2006/2007	2007/2008	2008/2009
Pump Stations – Electrical Refurbishment	115	98	97	98

- ***Pump Stations – Other (Critical Spares)*** – the proposed expenditure for this item was included under “Unidentified Items” in the 2004/05 review but is now included against this item with a proposed expenditure of \$160,000. Council advises that this item covers expenditure for critical spares for pump stations.

A review of the AIR/SIR indicates that although no forecasts have been made for this item, there is some record of historical expenditure. The average expenditure over the period from 2000/01 to 2004/05 is reported in the AIR/SIR to be about \$50,000 per year. The proposed expenditure over the price path period is set at about \$30,000 per year. We accept this expenditure as it relates to asset security and is well in line with historical expenditure. We also support its removal from the unidentified items.

Recommendation

We recommend that the proposed expenditure for the item Pump Stations – Other (Critical Spares) be accepted as detailed below:

Expenditure (2005/06 \$'000s)	2005/2006	2006/2007	2007/2008	2008/2009
Pump Stations – Other (Critical Spares)	30	30	30	31

- General (Communications/Equipment) – Refurbish Telemetry** – the proposed expenditure for this item has been reported to have changed from \$538,000 to \$696,000 in information supplied by Council (email dated 6 January 2006). The reason provided for this change was that reviews completed after the 2004/05 submission indicated a need to update/replace software and increase system capacity.

A review of the AIR/SIR indicates that over the period 2005/06 to 2008/09 the proposed expenditure has changed from about \$409,000 to just over \$567,000, an increase of \$158,000 (the same increase as reported above). Historical average expenditure has been about \$165,000 with the average expenditure proposed over the review period being a little lower at \$135,000.

Council appears to set aside a nominal budget and increase the proposed works in the first year of each review period. We believe that the proposed expenditure should be in line with the on-going program of expenditure and we propose to maintain this level. If additional works are required they should be accommodated within the existing funds in the program.

We reiterate our previous comments in respect to ongoing programs of expenditure (refer item “Reservoir – Repainting/Re-roofing” on pages 28-29) and confirm our recommendation to adjust the proposed expenditure for this item.

Recommendation

We recommend that the proposed expenditure for the item General (Communications/Equipment) – Refurbish Telemetry be adjusted as detailed below:

Expenditure (2005/06 \$'000s)	2005/2006	2006/2007	2007/2008	2008/2009
General (Communications/Equipment) - Refurbish Telemetry	102	102	103	102

- General (Communications/Equipment) – Refurbish 2-Way Radio** - the proposed expenditure for this item has been reported to be a new item with \$100,000 expenditure included. Council has advised that the works were originally scheduled to be completed in 2004/05 but have been delayed to 2005/06.

As this item is scheduled to be completed in 2005/06 we accept this expenditure change as caused by delays in the project.

Recommendation

We recommend that the proposed expenditure for the item General (Communications/Equipment) – Refurbish 2-Way Radio be accepted as detailed below:

Expenditure (2005/06 \$'000s)	2005/2006	2006/2007	2007/2008	2008/2009
General (Communications/Equipment) - Refurbish 2-Way Radio	100	0	0	0

- General (Communications/Equipment) – Other (Office)*** – this item of capital expenditure is new in the current review with a proposed allowance of \$650,000. Council advises that this item is designed to cover the replacement or purchase of minor office equipment, plant and small plant. In the 2004/05 submission the expenditure was included in “Unidentified items”.

A review of the AIR/SIR indicates that the proposed expenditure over the review period is \$492,000 with no expenditure being forecast in the 2004/05 review. Historical expenditure has been, on average, about \$145,000 while the proposed expenditure is set at a fairly regular \$100,000 per year. The proposed expenditure is well in line with historical expenditure and the item has been removed from the Unidentified Items category for the current review. On this basis we accept the proposed expenditure as submitted.

We again reiterate our previous comments in respect to ongoing programs of expenditure (refer item “Reservoir – Repainting/Re-roofing” on pages 28-29) and would recommend that Council either maintain a regular level of proposed expenditure for this item or allocate expenditure to specific projects only.

Recommendation

We recommend that the proposed expenditure for the item General (Communications/Equipment) – Other (Office) be accepted as detailed below:

Expenditure (2005/06 \$'000s)	2005/2006	2006/2007	2007/2008	2008/2009
General (Communications/Equipment) - Other (Office)	194	100	100	99

- ***JWS Mardi Dam Raising*** – the proposed capital expenditure for this item has decreased from \$1.7 million to just over \$1.6 million, with an equivalent reduction in Gosford Council's expenditure. Council has advised that there has been a delay in commencing the proposed works, which has resulted in some expenditure not being included in the review period.

A review of the AIR/SIR has indicated that the total expenditure for the project has decreased from \$1.79 million to just over \$1.62 million, a difference of about \$170,000.

The reductions in the proposed capital expenditure are appropriate and are fairly minor. We recommend accepting the proposed reductions.

Recommendation

We recommend that the proposed expenditure for the Mardi Dam Raising project be accepted as detailed below:

Expenditure (2005/06 \$'000s)	2005/2006	2006/2007	2007/2008	2008/2009
JWS Mardi Dam Raising	500	1,000	122	0

- ***JWS Mardi to Mangrove Transfer System*** – the proposed capital expenditure for this project has decreased from \$1.5 million to just over \$0.5 million. The explanation provided by Council was that investigation works had been brought forward in response to the continuing drought.

While this initially seems unusual, a review of Council's AIR/SIR indicates that some expenditure has been brought forward, however, the timing for the project has slipped and the majority of the capital expenditure is now outside the review period.

The total proposed expenditure for the project has not changed and as such we are happy to accept the proposed reduction.

Recommendation

We recommend that the proposed capital expenditure for the Mardi to Mangrove Transfer System be accepted as detailed below:

Expenditure (2005/06 \$'000s)	2005/2006	2006/2007	2007/2008	2008/2009
JWS Mardi to Mangrove Transfer System	200	300	0	0

- ***JWS Project Management for Major Water Projects*** – the proposed capital expenditure for this new item and is just over \$1.6 million, with an equivalent expenditure from Gosford Council. This new expenditure is a positive response to both the recommendations made in the 2004/05 review and the significant increase in the works program due to the drought contingency response.

There are some slight discrepancies between the Gosford Council and Wyong Council submissions for this item as shown in **Table 3-5**.

Table 3-5 *Discrepancies between Gosford Council and Wyong Council Submissions for JWS Project Management*

	2005/2006	2006/2007	2007/2008	2008/2009	Total
Gosford AIR/SIR	425	618	407	187	1,637
Wyong AIR/SIR	435	617.6	406.4	186.6	1,645.6
Wyong email 6 January 2006	435	633	427	201	1,696

The information supplied by Wyong Council (email dated 6 January 2006) was based on nominal figures and had not been adjusted to 2005/06 \$ equivalent values. The primary difference between the Gosford Council and Wyong Council AIR/SIR figures is the expenditure allowance in 2005/06. We have taken the figures supplied in each Council's AIR/SIR submissions as the correct figures.

The proposed expenditure on project management is essential given the large increase in the capital works program Council is proposing over the review period and the historical differences between Council's proposed and actual expenditure.

Overall, the project management expenditure represents about 3.6% of the total proposed capital expenditure for the joint water supply works over the review period. This overall figure is reasonably consistent with normal estimates of project management costs being about 2.5% of the capital costs. However, there are some variations when considering the proposed year-by-year expenditure as shown in **Table 3-6**.

Table 3-6 JWS Project Management Expenditure Profile as Proposed by Wyong Council

Expenditure (2005/06 \$'000s)	2005/2006	2006/2007	2007/2008	2008/2009
JWS total capital expenditure	15,309	25,383	3,890	595
JWS Project Management	425	618	407	187
PM as % of capital expenditure	2.8%	2.4%	10.5%	31.4%

While we support the overall project management expenditure as appropriate, we propose to re-phase the timing of the expenditure to more accurately reflect the level of capital works in each year. We note that the proposed expenditure for project management will not, at present, include management of the desalination project if this is required in the review period. It is recommended that the project management component for the desalination plant, if needed, be included in the revised capital expenditure for that project.

Recommendation

We recommend that the proposed capital expenditure for Project Management of Major Projects be accepted, but that the timing be adjusted as detailed below:

Expenditure (2005/06 \$'000s)	2005/2006	2006/2007	2007/2008	2008/2009
JWS Project Management	558	915	142	22

- ***Mains - Mardi-Warnervale Trunk Main*** – the proposed expenditure for this item is reported to have changed from \$4.65 million to \$4.87 million in information provided by Council (email dated 6 January 2006). Council advises that the additional expenditure relates to easement acquisition and additional compensation costs related to pre-construction works.

A review of the AIR/SIR indicates the proposed expenditure in the period 2005/06 to 2008/09 has changed from \$4.49 million to \$4.71 million, an increase of \$0.22 million (same increase as reported above).

A review of the whole project indicates that the total capital expenditure has dropped from \$4.88 million to \$4.71 million between 2004/05 to 2005/06. There was also no actual expenditure on the project in 2004/05 compared to the original proposed expenditure in that year of around \$385,000. Looking further back in the AIR/SIR indicates that the total capital expenditure for the project in 2002/03 was about \$5.7 million (in real terms 2005/06 \$) and was originally scheduled for completion in 2006/07 compared to the current scheduled completion date of 2007/08.

This indicates that the most probable reason for the change in expenditure is delays in the implementation of the project combined with reductions in the proposed expenditure. While this project demonstrates program slippage and an increase in expenditure over the review period, we note that the total expenditure has been reduced and on this basis we accept the proposed expenditure increase over the review period.

Recommendation

We recommend that the proposed capital expenditure for Mardi-Warnervale Trunk Main be allowed as detailed below:

Expenditure (2005/06 \$'000s)	2005/2006	2006/2007	2007/2008	2008/2009
Mains – Mardi to Warnervale Trunk Main	300	2,342	2,066	0

- ***Mains – Section 94 Works (by Council)*** – the proposed expenditure for this item has been reported to have reduced from about \$1.6 million to about \$1.2 million. Council advises that the decrease resulted from a more detailed review of expenditure requirements for this category of works for the 2005/06 Council budget.

A review of the AIR/SIR indicates that the change in expenditure over 2005/06 to 2008/09 was from \$1.41 million to \$0.99 million. The major reduction occurred in 2005/06 which reflects Council's comments that the reduction is due to a revision of estimates for Council's 2005/06 budget.

It appears as though Council is identifying a more typical expenditure for this item with a review of the AIR/SIR indicating the proposed expenditure has reduced from almost \$5.0 million in 2000/01 to about \$4.0 million in 2002/03, about \$1.6 million in 2004/05, and finally to \$1.2 million in 2005/06. The average actual expenditure over the same period has been about \$440,000 per year. The average expenditure proposed for the current price path review is now about \$230,000. We therefore accept this reduction in expenditure for Section 94 works.

Recommendation

We recommend that the proposed capital expenditure for Mains - Section 94 Works (by Council) be allowed as detailed below:

Expenditure (2005/06 \$'000s)	2005/2006	2006/2007	2007/2008	2008/2009
Mains – Section 94 Works (by Council)	200	321	323	142

- ***Mains – Trunk Main Gorokan to Norah Head*** – the proposed capital expenditure for this item has reduced from almost \$3.2 million to over \$1.6 million. Council advises that this item was originally scheduled for completion by 2007/08, however, further investigations have indicated that the works can be deferred with a planned commencement date in 2009/10.

This commencement date places these works outside the review period of 2005/06 to 2008/09 and as such these works will not be considered in the allowable capital expenditure.

- ***Mains – Trunk Main Gwandalan to Chain Valley Bay*** – the proposed expenditure for this item falls outside the review period of 2005/06 to 2008/09 in the 2004/05 submission and also in the 2005/06 submission. As such it has not been considered further in this review.
- ***Mains – Trunk Main Warnervale to Bushells Ridge*** – the proposed expenditure for this item has been reported by Council to have increased from \$6.78 million to \$9.02 million, an increase of \$2.24 million. Council has advised that the project has been brought forward to coincide with the Hunter Water Connection project.

A review of the AIR/SIR indicates that the actual expenditure change over the review period 2005/06 to 2008/09 is from \$3.38 million to \$8.85 million, a difference of \$5.47 million. The reason for this difference is that Council's reported figure in the 2004/05 submission included expenditure which was scheduled in 2009/10 which lies outside the review period.

The total proposed expenditure for the project from the 2004/05 submission was \$6.24 million while in the 2005/06 submission the total is about \$8.85 million. This seems to indicate that a premium of \$2.6 million is being paid to bring the works forward. We believe this premium is far too high and propose to make an adjustment to the capital expenditure.

We would expect that the process required to bring the works forward would include bringing additional project team members on line to undertake the pre-construction works and prepare the tender and contract documentation earlier than expected. We have assumed that all other works associated with the project remain the same. We have also assumed that there could be a slight premium on the construction cost due to increased construction activity. We have followed the methodology we used previously in assuming a 15% premium.

Applying our methodology to the original capital expenditure, we would expect a total capital expenditure of about \$7.18 million. We propose to use this figure as the maximum allowable capital expenditure representing a reduction in the capital expenditure of \$1.67 million. We have applied the reduction in capital expenditure to the proposed expenditure in 2006/07.

Wyong Council have provided additional information regarding the proposed expenditure for this project in response to the draft report. The information came in two packages; a letter dated 24 January 2006 and another letter dated 7 February 2006.

In the letter of 24 January 2006, Council advised that the increase in expenditure was not a premium but a revised estimate for the works undertaken as a result of bringing the works forward. Council stated that the original estimates were based on Development Servicing Plans prepared in 1999 and based on the then NSW Department of Public Works' state-wide typical unit costs. Council advised that the 2005/06 estimates are based on more refined estimates taking into account local conditions.

In the letter from Council dated 7 February 2006, Council confirmed the statements in the original letter and provided additional information regarding the projected costs. The additional information provided, however, stated that the increased capital expenditure for this project was not primarily a result of revised estimates but was actually a result of the inclusion of additional works to the project. These additional works were the construction of a new 30ML reservoir at Kiar Ridge (Council's information now refers to Kiar Ridge rather than Bushells Ridge). The proposed expenditure breakdown for the project is now approximately as follows:

- Warnervale to Kiar Ridge Trunk Main = \$6.0 million
- Kiar Ridge Reservoir = \$3.0 million

From the information provided, we now find ourselves reviewing the appropriateness of the additional works rather than revisions to the original expenditure estimates. We have not been provided with any information to justify the inclusion of the new reservoir in the proposed expenditure for this project; however, Council, has advised that the investigations for the new reservoir are still at an early stage.

We acknowledge that the works are related to the development of the Hunter Water Connection project which has already been identified as a priority project. Given the above, we are prepared to accept the proposed expenditure for the project as submitted by Council.

Recommendation

We recommend that the proposed capital expenditure for Mains – Trunk Main Warnervale to Bushells Ridge be accepted as detailed below:

Expenditure (2005/06 \$'000s)	2005/2006	2006/2007	2007/2008	2008/2009
Mains – Trunk Main Warnervale to Bushells Ridge	2,000	6,846	0	0

- ***Mains - Entrance/North Entrance Trunk Main*** – the proposed expenditure for this item has been reported to increase from \$410,000 to \$700,000. Council advised that the proposed increase is a result of revised estimates required after a change in scope was agreed between developers and Council.

A review of the AIR/SIR indicates that the actual change is as reported by Council. A review of previous submissions, however, indicates that the original capital expenditure for the project has changed from about \$270,000 in 2002/03 to \$410,000 in 2004/05 to \$700,000 in 2005/06. In addition there was \$420,000 in actual expenditure in 2003/04 and \$20,500 in actual expenditure in 2004/05.

This review of previous forecasts indicates that the project expenditure is now more than 2.5 times higher than the original forecast and that the actual expenditure to date is more than double the original forecasts and even exceeds the 2004/05 forecast.

We see no reason and have received no justification from Council as to why the expenditure for this project should be increased again and as such we propose to adjust the capital expenditure to match the 2004/05 forecast.

Council has provided additional information on the proposed expenditure for the project in response to the draft report. The information provided stated that Council have revised the proposed expenditure, based on the actual tender cost, a contingency allowance, and some expenditure for minor works to be carried out by Council, to a figure of \$535,000. Council have further stated that the tender for the project was awarded in early 2006.

The revised proposed expenditure is approximately 30% higher than the original estimate, however, we note that the project now includes some additional minor works to be undertaken by Council. This value of 30% is within the target band we have been using to review changes to capital expenditure and as such we are prepared to accept the revised expenditure.

Recommendation

We recommend that the proposed capital expenditure for Mains - Entrance/North Entrance trunk main be adjusted as detailed below:

Expenditure (2005/06 \$'000s)	2005/2006	2006/2007	2007/2008	2008/2009
Mains – Entrance / North Entrance Trunk Main	535	0	0	0

- ***Mains – Other*** – the proposed expenditure for this item has been reported to have changed from \$2.30 million to over \$2.73 million, an increase of over \$0.43 million. Council has provided no explanation as to why this amount has increased.

A review of the AIR/SIR indicates that the actual increase in expenditure over 2005/06 to 2008/09 is from \$1.75 million to \$2.1 million, an increase of \$0.35 million.

This category presumably covers works associated with other new water mains and is generally set as a regular amount each year. The average expenditure proposed in the current review is about \$520,000 per year. This compares to an average of \$430,000 per year in the 2004/05 submission and an average of about \$585,000 over the period from 2000/01 to 2004/05.

The proposed expenditure for the current review is within the long term average expenditure and is a 20% increase on the previous submission. We also note that the increase is likely to be required given the current level of development in the Wyong region. On this basis we are prepared to accept this increase.

Recommendation

We recommend that the proposed capital expenditure for Mains – Other be accepted as detailed below:

Expenditure (2005/06 \$'000s)	2005/2006	2006/2007	2007/2008	2008/2009
Mains - Other	600	500	500	500

- ***JWS Mardi High Lift Pump Station and Associated Works*** – the proposed capital expenditure for this project has increased from just over \$4.0 million to over \$8.8 million over the review period (with an equivalent increase in Gosford Council's proposed expenditure). The explanation provided by Council was that some additional works had been added to the project including reservoirs and tanks, trunk main extensions and a pump station and rising main.

While we would understand that these works are the reason for the significantly increased capital expenditure, we would question the reasons for adding these new works. Comments in the 2004/05 review indicated that the previous detailed estimates forecast a total capital expenditure requirement of only \$8.0 million (shared between the two Councils). We would question why these new works were not identified at the time of the previous detailed estimates.

Wyong Council provided additional information in response to the draft report. That information provided some detail of the proposed additional works and the estimated capital expenditure required for each project.

The additional information provided indicates that the projects are of high importance and that the consequences of not proceeding include:

- Wyong distribution system reservoir capacity falling below design standards.
- Gosford distribution system reservoir capacity falling below design standards.
- Wyong peak demands exceeding the balancing storage capacity of Tuggerah No 2 Reservoir.
- Use of reserve storage to meet combined peak demands with none available for contingency.

Our concern is, with the apparent critical importance of these projects, why they were not included in the 2004/05 submission. We can conclude that either Council has undertaken some major investigation work to identify these new works in the short period between the preparation of the two submissions, or that Council failed to allow for the projects in the 2004/05 submission. We cannot find any reference to these projects in any of the previous AIR/SIR submissions. Either option highlights that there could be some serious issues with Council's planning process.

We also note that the information provided indicates that the previous estimates for expenditure were based on a consultant's report completed in the early 1990s, and were only recently revised to develop the new estimates. It is understandable that the estimates are likely to significantly change given the long period between reviews, however, we believe that this process is not good practice. A more rigorous approach would be to review estimates at least at the start of every price review period and, preferably, on an annual basis. This process would at least lessen the impact of increases in the estimated capital expenditure.

We have serious concerns about Council's planning process in failing to identify these additional works prior to the current review and we have continuing reservations about the justification for the additional works and as such we propose to make some adjustments to the capital expenditure.

We believe that the expenditure for the Mardi High Lift Pump Station is appropriate and recommend that this expenditure be allowed with the revised estimate included in the additional information provided by Wyong Council. However, we believe that the additional works are not entirely justified at this stage and propose that the expenditure for these projects be deferred. We note that Council's information indicates that the proposed additional works would increase the system capacity to meet future demands out to the year 2031. We suggest that based on this timeframe, there is quite some scope for deferral of the additional works.

We also note that Council is experiencing a serious drought at present and, consequently, works that allow additional water to be pumped into the system may not be fully utilised for some time or at least until the current drought is over. Current predictions are that the water supply system is likely to be on serious restrictions for a large proportion of the review period.

We have provided individual explanations for each of the additional works to further explain our recommendations.

- *Mardi Clearwater Tank No. 2 (15ML) and associated pipework* – we believe that this additional clearwater tank is not required at this stage. We believe that with the variable pumping capacity available at the new Mardi High Lift Pump Station (40 ML/day, 80ML/day, 120ML/day and 160ML/day with the three duty pumps alone) that the output of the pump station can be set to match the Mardi WTP, essentially only using the existing clearwater tank as a balancing storage. This arrangement can be utilised since the pump station is pumping to a reservoir and not directly into the distribution system.
- *Tuggerah No 3 Reservoir (40ML)* – we believe that this reservoir's capacity is unlikely to be a critical need at this stage. We believe that there is sufficient output from the Mardi High Lift Pump Station and the Mardi WTP to match the required demands during the current drought period. We have assumed that the peak day demands for the Kanwal and The Entrance systems are less than the output of the pump station and WTP of 160ML/day
- *Wyong-Gosford Transfer – North Gosford Trunk Main Extension* – the information provided by Wyong Council indicates that this extension is only needed for emergency supply purposes and that the current

and projected peak day demands can be met through the existing system. We suggest that these works should be considered a lower priority and deferred out of the review period.

- *North Gosford to Springfield Pump Station and Rising Main* – while the intention of this project is sound and represents a cost saving over the previously considered option, we note that these works are a security of supply project. The existing systems are sufficient to meet the current and projected peak day demands.

Recommendation

We propose that the capital expenditure for the JWS Mardi High Lift Pump Station and Associated Works be adjusted to allow the expenditure for the pump station, but to defer the proposed expenditure for the additional works. We have, however, provided a nominal allowance for ongoing planning work associated with the proposed additional works.

We recommend that the following capital expenditure be accepted:

Expenditure (2005/06 \$'000s)	2005/2006	2006/2007	2007/2008	2008/2009
JWS Mardi High Lift Pump Station and Associated Works	500	5,500	100	100

- *JWS Mardi Dam Transfer System* – the proposed capital expenditure for this project has increased from over \$4.2 million to just over \$10.5 million in the review period (with a similar increase from Gosford Council). Council advised that the revised figure is from significantly higher tender prices than were estimated in the latest reports. In addition, some additional works have also been included in the project.

The 2004/05 review commented that the estimate of expenditure was not in line with the detailed estimates in reports on the project and recommended that the expenditure be reduced by about 15%, commenting that the reduction was “related to better project definition at the design stage” (Atkins/Cardno, 2005).

Our review of the total costs of the project indicate that in the 2004/05 review, the total cost included was about \$6.4 million with over \$2.1 million scheduled for 2004/05. The total proposed expenditure for the project has therefore changed from \$6.4 million to \$10.5 million, a difference of \$4.1 million. Our review also revealed that there has been some significant variation in the proposed project timeframe and expenditure, as shown in **Table 3-7**.

*Table 3-7 Variations in Proposed Expenditure by Wyong Council for
Mardi Dam Transfer System - 1999/2000 Review to
2005/2006 Review*

Historical Proposed Expenditure for Mardi Dam Transfer System (2005/06 \$'000s)	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08	Totals
1999/2000 review		\$4,639					\$4,639
2002/2003 review	\$54	\$3,769	\$3,231				\$7,054
2004/2005 review			\$2,115	\$3,222	\$1,025		\$6,362
2005/2006 review				\$2,000	\$8,000	\$500	\$10,500

Wyong Council provided additional information in response to the draft report which indicated that the additional works relate to upgrades to power supply requirements across the whole Mardi area with a proposed total cost estimated at \$2 million. The required upgrades were identified in a meeting between Wyong Council and Energy Australia in May 2005.

We have not been informed of the specific cost allocated to this project and we note that the total power supply upgrade cost also relates to four other projects. If, however, we distribute the estimated \$2 million total cost equally between all five projects, we would assume that the specific cost to each project will be approximately \$0.4 million. This cost is then shared equally between Wyong Council and Gosford Council, so accounting for these additional works, the unexplained difference in the proposed expenditure for Wyong Council is now \$3.9 million.

For the capital expenditure, we would expect that the detailed estimates for the works should be within 15% of the actual contract costs. If we also assume a premium of 15-20% on the contract rates to account for increased construction activity, we would then expect that the contract costs would be no more than 30-35% higher than the detailed estimates. Council's proposed capital expenditure in the review period is over 150% higher than the corresponding period in the 2004/05 review, or more than 145% higher if we remove the capital expenditure for the additional works. This increase is, in our opinion, unacceptable.

If we take into account the slippage in the project timeframe and look at the total expenditure for the project, the difference reduces significantly to about 61%, however, this figure is still well outside our target of 30-35% as discussed for previous projects above. We are concerned about the continuing slippage in the project timeframe and expenditure and the remaining variation in the capital expenditure, and consequently we propose

to recommend a maximum allowable capital expenditure limit of 30% of the original detailed estimate.

Our proposed capital expenditure limit, based on the original total capital expenditure of \$6.4 million, is then \$8.52 million, plus the \$0.2 million allowance for the additional power supply works. We have applied this expenditure over the price path period in the same proportion as included by Council in their submission.

Recommendation

We propose to make an adjustment to the capital expenditure for the JWS Mardi Dam Transfer System based on our assessment of the project. We recommend that the total capital expenditure allowed for Wyong Council should be \$8.72 million and that it should be applied over the review period in the same proportions as Council's 2005/06 submission, as detailed below:

Expenditure (2005/06 \$'000s)	2005/2006	2006/2007	2007/2008	2008/2009
JWS Mardi Dam Transfer System	1,794	6,926	0	0

- ***JWS Mooney Mooney Transfer System Upgrade*** – the proposed capital expenditure for this project has decreased from \$1.9 million to just under \$0.65 million (with a matching contribution from Gosford Council). Council have advised that the reduction is the result of revisions to the estimate and the use of existing infrastructure in place of new works.

This issue was raised in the 2004/05 review by Atkins/Cardno and a revised total capital expenditure of \$1.3 million was recommended. Wyong Council's proposed expenditure (plus the matching contribution from Gosford Council) is similar to Atkins/Cardno's recommended figure.

This project, along with the other listed Wyong-Mardi projects, is an important medium term response to the water supply and demand imbalance experienced by Wyong and Gosford Councils.

Recommendation

We recommend that the proposed expenditure for the Mooney Mooney Transfer System Upgrade be accepted as detailed below:

Expenditure (2005/06 \$'000s)	2005/2006	2006/2007	2007/2008	2008/2009
JWS Mooney Mooney Transfer System	50	0	0	595

- ***JWS Lower Wyong Transfer System Upgrade*** – the proposed expenditure for this project has increased from \$2.6 million to \$2.9 million over the review period (matched by equivalent expenditure from Gosford Council). The reason given by Council for this increase is that there has been a revision to the estimate and a project delay reflecting uncertainty over the impact of water sharing plans.

The total expenditure required for the project, however, has changed from just over \$2.76 million to just over \$2.9 million, a difference of \$130,000 only. This difference is less than 5% of the total expenditure and is, in our opinion, an acceptable revision to the estimate. We are satisfied that this change is acceptable and the proposed expenditure should be allowed.

It is further noted that, whilst the water sharing plans have not yet been finalised, draft plans indicate that upgrade of the transfer system would be prudent. The proposed expenditure profile is consistent with the timeframe for final approval of the water sharing plans.

Recommendation

We recommend that the proposed expenditure for the Lower Wyong Transfer System Upgrade be accepted as detailed below:

Expenditure (2005/06 \$'000s)	2005/2006	2006/2007	2007/2008	2008/2009
JWS Lower Wyong Transfer System	150	2,062	688	0

- ***Treatment – Fishway – Upper Ourimbah Creek Weir*** – the proposed capital expenditure for this item has been reported to have decreased from \$308,000 to \$116,000. Council has advised that the reason for this change is the revision of the previous estimate on the basis of actual construction costs for a similar project.

A review of the AIR/SIR indicates that the change in expenditure over the 2005/06 to 2008/09 period is the same as reported. As the proposed expenditure has reduced and has also been based on actual construction costs on a similar project, we are happy to accept the proposed reduction.

Recommendation

We recommend that the proposed expenditure for the Treatment – Fishway – Upper Ourimbah Creek Weir be accepted as detailed below:

Expenditure (2005/06 \$'000s)	2005/2006	2006/2007	2007/2008	2008/2009
Treatment – Fishway – Upper Ourimbah Creek Weir	116	0	0	0

- ***Treatment – Other (Ultraviolet Disinfection)*** – the proposed expenditure for this item is a new item that was not forecast in the 2004/05 submission and is now listed at \$400,000. Council advises that this expenditure relates to the need for additional disinfection of effluent to enable residential reuse.

The proposed expenditure relates to important works that can assist in the reduction of potable water use and as such we are happy to accept this proposed new expenditure.

Recommendation

We recommend that the proposed expenditure for the Treatment – Other (Ultraviolet Disinfection) be accepted as detailed below:

Expenditure (2005/06 \$'000s)	2005/2006	2006/2007	2007/2008	2008/2009
Treatment – Other (Ultraviolet Disinfection)	400	0	0	0

- ***Treatment – Activated Carbon Plant (Mardi)*** – the proposed expenditure for this item is a new item that was not forecast in the 2004/05 submission and is now listed at \$200,000. Council advises that this expenditure relates to the need for additional treatment of taste and odour problems from algal blooms on the Mardi Dam. Council also advises that this is a recent phenomenon due to higher nutrient loads from groundwater being pumped into the dam.

The proposed expenditure relates to important works that can assist in the treatment of potable water and as such we are happy to accept this proposed new expenditure.

Recommendation

We recommend that the proposed expenditure for the Treatment - Activated Carbon Plant (Mardi) be accepted as detailed below:

Expenditure (2005/06 \$'000s)	2005/2006	2006/2007	2007/2008	2008/2009
Treatment – Activated Carbon Plant (Mardi)	200	0	0	0

- ***Reservoirs – Flowmeters*** – this is a new item of proposed capital expenditure that was not originally forecast in the 2004/05 submission. The proposed expenditure is \$50,000 and Council advises that it relates to the replacement of flow meters to increase accuracy for regulatory reporting purposes (water sharing plans).

A review of the AIR/SIR indicates that expenditure of \$75,000 in 2004/05 was set aside for flow meters while the actual expenditure incurred was only \$42,000. The proposed expenditure is consistent with historical actual expenditure, and is related to the development of water sharing plans. We support these works and accept the proposed expenditure.

Recommendation

We recommend that the proposed expenditure for the Reservoirs - Flowmeters be accepted as detailed below:

Expenditure (2005/06 \$'000s)	2005/2006	2006/2007	2007/2008	2008/2009
Reservoirs - Flowmeters	50	0	0	0

- Mains/Pump Stations – General Items*** – the proposed expenditure for this item has been reported as increasing from \$699,000 to \$835,000, an increase of \$136,000. Council advises that the increase is a result of revisions to the estimate of works and identification of additional works required for 2005/06.

A review of the AIR/SIR reveals that the actual expenditure change over the 2005/06 to 2008/09 period is from \$533,000 to \$659,000, an increase of \$126,000. The proposed expenditure amounts to approximately \$140,000 per year compared to an average actual expenditure of about \$270,000.

Council appears to set aside a nominal budget and increase the proposed works for the first year of each review period. We believe that the proposed expenditure should be in line with the on-going program of expenditure and we propose to maintain this level. If additional works are required they should be accommodated within the existing funds in the program.

We again reiterate our previous comments in respect to ongoing programs of expenditure (refer item “Reservoir – Repainting/Re-roofing” on pages 28-29) and would recommend that Council either maintain a regular level of proposed expenditure for this item or allocate expenditure to specific projects only.

Recommendation

We recommend that the proposed expenditure for the Mains/Pump Stations – General Items be adjusted as detailed below:

Expenditure (2005/06 \$'000s)	2005/2006	2006/2007	2007/2008	2008/2009
Mains/Pump Stations – General Items	140	140	140	139

- **Unidentified works** – this item was not reported by Wyong Council as changing by more than the IPART materiality threshold, however, a review of the current AIR/SIR indicates otherwise. The proposed expenditure for this item has increased from over \$3.9 million to just over \$8.6 million, an increase of around \$4.7 million or around 120%. Wyong Council has not provided an explanation for this increase in unidentified expenditure.

In the previous review Atkins/Cardno reviewed this item and commented that “unless [the item] can be identified to specific works and outputs it should not be included within the price control period.” A subsequent explanation by Council indicating that the item covers contingency projects led Atkins/Cardno to revise their recommendation and allow about half of the proposed expenditure.

Atkins/Cardno commented that while a level of contingency is prudent, it should not be at the level proposed by Wyong Council and they recommended reducing the expenditure to approximately \$1.8 million over the four year price path period.

We are of the same view as Atkins/Cardno that a level of contingency is prudent, however, like Atkins/Cardno we do not support the contingency level proposed by Council in the current submission. **Table 3-9** shows the expenditure proposed in this category as compared to the total yearly program for non-joint water supply (non-JWS) works proposed by Council.

Table 3-8 Unallocated Water Supply Works compared to Proposed Total Non-JWS Water Supply Program

Expenditure (2005/06 \$'000s)	2005/2006	2006/2007	2007/2008	2008/2009
Unidentified Works – proposed	0	2,111	2,168	4,323
Total Non-JWS Water Supply Program – proposed	6,069	12,786	5,724	5,630
% Unidentified Works	0	17%	38%	77%

The table shows that in the final year of the price path review period the proposed expenditure for unidentified works amounts to more than three quarters of the total proposed expenditure. It is our opinion that this percentage is too high.

We recommend that Council’s proposed expenditure for the “Unidentified Works” be adjusted to a sliding scale, which reflects an increasing degree of uncertainty for future projections over the forecast period. We propose that the allocation be determined in accordance with the following:

- a limit of 10% of the total recommended expenditure for non-JWS water supply works in the 2006/07 year;
- a limit of 15% of the total recommended expenditure for non-JWS water supply works in 2007/08; and
- a limit of 20% of the total recommended expenditure for non-JWS water supply works in the final year of the price path period 2008/09.

Recommendation

We recommend that the proposed expenditure for the Unidentified Items be adjusted as detailed below:

Expenditure (2005/06 \$'000s)	2005/2006	2006/2007	2007/2008	2008/2009
Unidentified items	0	1,223	755	458

3.9.3

Sewerage Projects

- ***Treatment – General Mechanical/Refurbishment*** – the proposed expenditure for this item has been reported as increasing from \$266,000 to \$319,720, an increase of \$53,720 between the 2004/05 and 2005/06 submissions. Council advises that the increase is a result of revisions to the estimates and the identification of additional items totalling \$53,000.

A review of the AIR/SIR indicates that the actual change in expenditure over the price path period is from \$202,000 to \$256,000 and this also agrees with Council's advice on the size of the increase.

The expenditure proposed for 2004/05 was \$173,000, however, the actual expenditure was only \$53,000. It is also possible, then, that some of the works proposed for 2004/05 have been carried forward into 2005/06.

Council appears to set aside a nominal budget and increase the proposed works for the first year of each review period. We believe the proposed expenditure should be in line with the on-going program of expenditure and we propose to maintain this level. If additional works are required they should be accommodated within the existing funds in the program. We propose to adjust the works to maintain the existing level of on-going expenditure.

We again reiterate our previous comments in respect to ongoing programs of expenditure (refer item "Reservoir – Repainting/Re-roofing" on pages 28-29) and would recommend that Council either maintain a regular level of proposed expenditure for this item or allocate expenditure to specific projects only.

Recommendation

We recommend that the proposed expenditure for the Treatment - General Mechanical/Refurbishment be adjusted as detailed below:

Expenditure (2005/06 \$'000s)	2005/2006	2006/2007	2007/2008	2008/2009
Treatment – General Mechanical/Refurbishment	51	51	50	50

- ***Treatment – Replace Fluid Couplings Aerators (Tank 3) Wyong South STW*** – this proposed expenditure of \$71,400 is reported to be a new item in the current submission. Council advises that the works were identified from condition monitoring inspections undertaken in early 2005.

The proposed expenditure increase is relatively minor, is supported by a condition monitoring inspection and appears to be a once-off item. As such, we accept the proposed expenditure.

Recommendation

We recommend that the proposed expenditure for the Treatment – Replace Fluid Couplings Aerators (Tank 3) Wyong South STW be accepted as detailed below:

Expenditure (2005/06 \$'000s)	2005/2006	2006/2007	2007/2008	2008/2009
Treatment – Replace Fluid Couplings Aerators (Tank 3) Wyong South STW	71.4	0	0	0

- ***Treatment – Civil Refurbishment*** – the proposed capital expenditure for this item has been reported to have increased from \$129,000 to \$198,250. Council advises that the increase is a result of the identification of additional refurbishment items totalling \$69,000 for the 2005/06 Council budget.

The AIR/SIR indicates an actual expenditure change, over the pice path period, from \$80,900 to \$150,000, the same increase as reported by Council.

Council appears to set aside a nominal budget and increase the proposed works for the first year of each review period. The proposed expenditure should be in line with the on-going program of expenditure and we propose to maintain this level. If additional works are required they should be accommodated within the existing funds in the program.

We again reiterate our previous comments in respect to ongoing programs of expenditure (refer item “Reservoir – Repainting/Re-roofing” on pages 28-29) and would recommend that Council either maintain a regular level of proposed expenditure for this item or allocate expenditure to specific projects only.

Recommendation

We recommend that the proposed expenditure for the Treatment – Civil Refurbishment be adjusted as detailed below:

Expenditure (2005/06 \$'000s)	2005/2006	2006/2007	2007/2008	2008/2009
Treatment – Civil Refurbishment	20	20	20	20

- ***Treatment – Flowmeter Refurbishment*** – the proposed capital expenditure has been reported to decrease from \$430,000 to \$383,300, a decrease of \$46,700. Council has advised that the decrease is a result of minor adjustments to the estimates for works.

The AIR/SIR indicates that the actual change in expenditure is from \$328,000 to \$295,000, a decrease of \$33,000. We are happy to accept any decreases in the proposed capital expenditure for the current submission.

Recommendation

We recommend that the proposed expenditure for the Treatment - Flowmeter Refurbishment be accepted as detailed below:

Expenditure (2005/06 \$'000s)	2005/2006	2006/2007	2007/2008	2008/2009
Treatment - Flowmeter Refurbishment	83	70	70	71

- ***Treatment – Other*** – the proposed expenditure for this item has been reported to be a new item in the current submission with an allowance of \$78,540 included. Council advises that this expenditure covers items identified by on-going condition monitoring inspections that were undertaken after the 2004/05 submission.

A review of the AIR/SIR indicates that the proposed expenditure is well in line with the historical average expenditure on this item of \$190,000. The item is also a once-off expenditure and as such we are happy to accept the proposed expenditure.

Recommendation

We recommend that the proposed expenditure for the Treatment – Other be accepted as detailed below:

Expenditure (2005/06 \$'000s)	2005/2006	2006/2007	2007/2008	2008/2009
Treatment – Other	79	0	0	0

- **Mains – Sewer Rehabilitation** – the proposed expenditure for this item is reported to have decreased from \$1.61 million to \$1.49 million, a change of \$0.12 million. Council advises that the decrease in expenditure is a result of the contract cost of a project being less than originally estimated.

We are happy to accept any reductions in proposed expenditure especially when the reductions are based on actual contract costs.

Recommendation

We recommend that the proposed expenditure for the Mains – Sewer Rehabilitation be accepted as detailed below:

Expenditure (2005/06 \$'000s)	2005/2006	2006/2007	2007/2008	2008/2009
Mains – Sewer Rehabilitation	238	293	293	293

- **Mains – Other** – the proposed capital expenditure for this item is reported to be a new item in the current submission and is set at \$269,500. Council advises that the expenditure for this item was included under the category of “Unidentified Items” in the 2004/05 submission. The expenditure covers items associated with mains refurbishment such as vacuum pot reconditioning and CCTV inspections.

A review of the AIR/SIR indicates that Council has decided to make this item an on-going program and has set aside approximately \$50,000 each year. We support Council’s decision to remove this item from the unidentified items category and support this proposed expenditure.

Recommendation

We recommend that the proposed expenditure for the Mains – Other be accepted as detailed below:

Expenditure (2005/06 \$'000s)	2005/2006	2006/2007	2007/2008	2008/2009
Mains – Other	60	50	49	49

- **General – Refurbish Telemetry** – the proposed expenditure for this item is reported as changing from \$537,000 to \$720,600, an increase of \$183,600. Council advises that the increase in expenditure results from a need to update/replace software and increase system capacity.

A review of the AIR/SIR indicates that this item is an on-going program of works with a set amount of around \$100,000 generally allocated for each year. Council again appears to have increased the proposed works in the first year of the review period. We believe that the proposed expenditure should be in line with the on-going program of expenditure and we propose to maintain this level. If additional works are required they should be accommodated within the existing funds in the program.

We again reiterate our previous comments in respect to ongoing programs of expenditure (refer item “Reservoir – Repainting/Re-roofing” on pages 28-29) and would recommend that Council either maintain a regular level of proposed expenditure for this item or allocate expenditure to specific projects only.

Recommendation

We recommend that the proposed expenditure for the General – Refurbish Telemetry be adjusted as detailed below:

Expenditure (2005/06 \$'000s)	2005/2006	2006/2007	2007/2008	2008/2009
General – Refurbish Telemetry	100	101	103	102

- ***General – Refurbish 2-Way Radio System*** – the proposed expenditure for this item has been reported to be a new item for the current submission with an allocation of \$83,300. Council advises that the expenditure relates to a delay in the planned works from 2004/05 to 2005/06.

While this expenditure is related to a delay in the project, it appears to be a once off item and as such we accept the proposed expenditure.

Recommendation

We recommend that the proposed expenditure for the General – Refurbish 2-Way Radio System be accepted as detailed below:

Expenditure (2005/06 \$'000s)	2005/2006	2006/2007	2007/2008	2008/2009
General – Refurbish 2-Way Radio System	83.3	0	0	0

- ***General – Mains Power at Scaddens Ridge*** – the proposed expenditure for this item is reported to be a new item for this submission with the proposed capital expenditure amounting to \$315,350. Council has advised that the expenditure is a result of delays in receiving statutory approvals, thereby shifting the proposed completion date from 2004/05 to 2005/06.

This proposed expenditure is a result of delays that are, on face value, beyond the control of Council. As such, we accept the proposed expenditure.

Recommendation

We recommend that the proposed expenditure for the General – Mains Power at Scaddens Ridge be accepted as detailed below:

Expenditure (2005/06 \$'000s)	2005/2006	2006/2007	2007/2008	2008/2009
General – Mains Power at Scaddens Ridge	315	0	0	0

- ***General – Other*** – the proposed capital expenditure for this item is reported to be a new item in the current submission with an allocation of \$436,720. Council advises that this expenditure was included in the category of “Unidentified Items” in the 2004/05 submission. The proposed expenditure covers the replacement and purchase of minor plant and office equipment.

We support Council’s decision to remove this item from the unidentified items category and allocate it to a more specific category. Council appears to be setting this item up as a regular program of expenditure. We are happy to accept this proposed expenditure.

Recommendation

We recommend that the proposed expenditure for the General – Other be accepted as detailed below:

Expenditure (2005/06 \$'000s)	2005/2006	2006/2007	2007/2008	2008/2009
General – Other	105	78	78	78

- ***Sewerage Treatment – Section 94 Works (by Council)*** – the proposed capital expenditure for this item has been reported to have decreased from almost \$5.7 million to just over \$4.5 million. Council advises that Section 94 works are highly variable and relate to works identified under Development Servicing Plans. A Council review of their 2005/06 budget indicated that a lower level of expenditure was expected than that which was originally forecast.

A review of the AIR/SIR indicates that the actual change in expenditure over the period 2005/06 to 2008/09 is from \$4.53 million to \$3.5 million, a decrease of \$1.03 million.

We are happy to accept any reductions to the capital expenditure for this review.

Recommendation

We recommend that the proposed expenditure for the Sewerage Treatment – Section 94 Works (by Council) be accepted as detailed below:

Expenditure (2005/06 \$'000s)	2005/2006	2006/2007	2007/2008	2008/2009
Sewerage Treatment – Section 94 Works (by Council)	756	1,174	768	799

- ***Treatment – Other*** – the proposed expenditure for this item has been reported to be a new item for this submission with an allocation of \$272,690. Council advises that the expenditure relates to miscellaneous items related to the Growth category. Council advises that this expenditure was previously included under “Unidentified Items”.

Council is proposing to set this item as a program of on-going expenditure. The proposed expenditure of \$50,000 per year is in line with the historical average expenditure and as such we accept this new expenditure.

Recommendation

We recommend that the proposed expenditure for the Treatment – Other be accepted as detailed below:

Expenditure (2005/06 \$'000s)	2005/2006	2006/2007	2007/2008	2008/2009
Treatment – Other	61	49	49	50

- ***Pump Stations – B3/B4 and Rising Main*** – the proposed capital expenditure for this item has increased from \$0.2 million to over \$1.8 million. Council advises that the reason for this increase is due to delays in the project causing planned expenditure in 2004/05 to be delayed until 2005/06.

A review of Council’s AIR/SIR and historical expenditures indicates that this project was originally scheduled for completion in 2001/02 at a cost of \$0.9 million. The project was delayed and for the next review period the project was rescheduled to 2002/03 and 2003/04 with \$0.45 million expenditure in each year. However, the project was delayed again and in the 2004/05 review the project was scheduled for 2004/05 and 2005/06 with \$1.2 million and \$0.2 million in expenditure in each year respectively.

The project has now been delayed again and in the current review is now scheduled for 2005/06 and 2006/07 with \$1.43 million and \$0.37 million

proposed expenditure in each year respectively. The current expected completion date is some 5 years after the original expected date and the final proposed expenditure is over double the original estimate.

Council advises that the currently proposed expenditure is now based on the tender price for the successful contractor so we can expect that the project will not be delayed further.

The final tender price, although much higher than the original estimate, is less than 30% higher than the 2004/05 figure. Although we are concerned by the significant slippage in this project and the overall increase in expenditure, we are prepared to accept Council's proposed expenditure.

Recommendation

We recommend that the proposed expenditure for the Pump Stations - B3/B4 and Rising Main be accepted as detailed below:

Expenditure (2005/06 \$'000s)	2005/2006	2006/2007	2007/2008	2008/2009
Pump Stations - B3/B4 and Rising Main	1,428	364	0	0

- ***Pump Stations – B10 Pump Station*** – the proposed capital expenditure for this item has decreased from \$716,000 to \$29,750. Council has advised that the reason for this is that the project has been deferred beyond 2009/2010 in preference for higher priority works. The small remaining expenditure is to undertake a minor electrical upgrade at the pump station.

A review of the AIR/SIR indicated that the expenditure proposed in the 2004/05 submission was allocated to 2009/10 and, as such, falls outside the review period. The actual change in capital expenditure is then an increase of \$29,750 which is below IPART's threshold of \$40,000. We have therefore not considered this item any further.

- ***Pump Stations – B11/13 Pump Stations*** – the proposed expenditure for this item has been reported to have increased from \$371,000 to \$812,200. Council has advised that this increase is due to revisions to the initial estimate based on site conditions.

A review of the AIR/SIR has indicated that the actual change in expenditure over the review period is from \$366,000 to \$803,000, an increase of \$437,000, or about 120% on the original estimate.

We believe that this is an unacceptable increase in the capital expenditure. We would expect that expenditure estimates for a concept design stage of a project would be within 30% of the actual costs and we might assume that

for a budget estimate the expenditure would be expected to be within 50% of the final expenditure, unless, of course, there is a significant change in the scope of the project.

The increase in expenditure of 120% simply due to site conditions is, in our opinion, unacceptable and we propose to use a maximum allowable expenditure of \$550,000 which allows an increase of 50% over the original estimate. We propose to allocate the costs in the same proportion as Council's submission.

Council have provided additional information in response to the draft report indicating that the estimates for capital expenditure have been revised again to a total cost of \$885,000 (which is now 140% higher than the 2004/05 estimate), and that the results of further investigations may result in the total cost increasing even further.

This situation is indicative of a poor planning process and poor definition of the scope of the works required. This project has appeared in Council's AIR/SIR since the 1999/2000 review and a total of \$1.1 million has been included in the allowable capital expenditure for this project over the previous three price path periods. There has, however, been no actual expenditure reported to date.

Our review of the additional information provided by Council has not adjusted our views on this project and we reiterate our recommendation that the proposed expenditure be limited to \$550,000, allocated in the same proportion as Council's current submission.

Recommendation

We recommend that the proposed expenditure for the Pump Stations - B11/13 Pump Stations be adjusted as detailed below:

Expenditure (2005/06 \$'000s)	2005/2006	2006/2007	2007/2008	2008/2009
Pump Stations - B11/13 Pump Stations	308	242	0	0

- ***Pump Stations – B5 Pump Station and Rising Main*** – the proposed expenditure for this item has been reported as being a new item in the current submission with an allocation of \$334,000. Council advises that this expenditure was, in the 2004/05 submission scheduled for 2009/10 but has now been deferred until after 2009/10 due to higher priority works.

As the entire capital expenditure is outside the review period of 2005/06 to 2008/09 we have not considered this item any further.

- ***Pump Stations – B6 Pump Station and Rising Main*** – the proposed expenditure for this item has been reported as being a new item for the current submission with an allocation of \$178,000. Council advises that in the 2004/05 submission this expenditure was scheduled for 2009/10 but has now been deferred past 2009/10 due to higher priority works.

As the entire capital expenditure is outside the review period of 2005/06 to 2008/09 we have not considered this item any further.

- ***Pump Stations – B7 Pump Station Electrical/Mechanical*** – the proposed expenditure for this item has been reported as being a new item for the current submission with an allocation of \$122,000. Council advises that in the 2004/05 submission this expenditure was scheduled for 2009/10 but has now been deferred past 2009/10 due to higher priority works.

As the entire capital expenditure is outside the review period of 2005/06 to 2008/09 we have not considered this item any further.

- ***Pump Stations – B16*** – the proposed expenditure for this item has been reported as being a new item for the current submission with an allocation of \$176,000. Council advises that in the 2004/05 submission this expenditure was scheduled for 2009/10 but has now been deferred past 2009/10 due to higher priority works.

As the entire capital expenditure is outside the review period of 2005/06 to 2008/09 we have not considered this item any further.

- ***Pump Stations – WS29/31 A/B Electrical/Mechanical*** – the proposed expenditure for this item has been reported as being a new item for the current submission with an allocation of \$89,250. Council advises that this expenditure was originally scheduled for 2004/05, however, due to delays in the project the expenditure has been rescheduled for 2005/06.

A review of the AIR/SIR has indicated that there was an allocation of around \$200,000 for the original project in the 2002/03 submission. This expenditure was subsequently used, in full, in 2003/04. An additional allocation of around \$380,000 was included in the 2004/05 submission followed by actual expenditure in 2004/05 of around \$175,000. The current submission now includes an amount of \$89,250 to complete the project.

We believe that the original allocation of expenditure in 2002/03 should have completed the works and this appeared to be so in 2003/04. We are not aware of whether the additional allocation in 2004/05 was the result of a change in the scope of works. Given the additional actual expenditure in 2004/05, we believed that no further expenditure should be allowed unless

Council could demonstrate that there was a change in the scope of works that justified the additional allocation of funds in 2004/05.

Council provided additional information in response to the draft report that indicated the proposed expenditure in the 2004/05 submission was related to additional works. Council advised that the original allocation was for rebuilding of the control room for pump station WS31 while the proposed expenditure for 2004/05 was for the replacement of vacuum pumps and pipework in pump station WS29. The works for 2004/05 slipped into 2005/06 resulting in the additional allocation of expenditure in the current submission. We are satisfied that the expenditure relates to additional works at the pump stations and, as such, we are prepared to accept the proposed expenditure.

Recommendation

We recommend that the proposed expenditure for the Pump Stations - WS29/31 A/B Electrical/Mechanical be accepted as detailed below:

Expenditure (2005/06 \$'000s)	2005/2006	2006/2007	2007/2008	2008/2009
Pump Stations - WS29/31 A/B Electrical/Mechanical	89	0	0	0

- ***Pump Stations – MP5 Electrical/Mechanical*** – the proposed expenditure for this item has been reported as being a new item for the current submission with an allocation of \$162,000. Council advises that in the 2004/05 submission this expenditure was scheduled for 2009/10 but has now been deferred past 2009/10 due to higher priority works.

As the entire capital expenditure is outside the review period of 2005/06 to 2008/09 we have not considered this item any further.

- ***Pump Stations – WS9 Pump Station/Rising Main*** – the proposed capital expenditure for this item has been reported as changing from \$417,000 to \$672,200, an increase of \$255,200 or over 60% higher than the original estimate. Council advises that this increase is a result of revisions to the initial estimate based on site conditions.

A review of the AIR/SIR confirms this increase in expenditure. We propose to apply the same methodology to this item as we have for the item “Pump Stations – B11/13 Pump Stations” reviewed previously, that is, we would expect that the final expenditure would be within 50% of the original estimate. Applying this adjustment to the original estimate, we calculate a maximum allowable capital expenditure of \$625,500 which we propose to

adopt. We will allocate the total expenditure in the same proportion as Council's submission.

Council provided additional information in response to the draft report indicating that the proposed expenditure has increased to \$716,000 based on a consultants report on construction costs completed in January 2006. This latest estimate is now over 70% higher than the original estimate.

If we assume the scope of works has not changed in the period since the original estimate was produced, we must conclude that the original estimate was not sufficiently accurate for inclusion in the AIR/SIR. Again this is indicative of poor definition of the scope of works or poor estimation of the required capital expenditure.

Our review of the information provided by Council has not adjusted our views on this project and we reiterate our recommendation to limit the capital expenditure for this project to \$625,500, allocated in the same proportions as Council's submission.

Recommendation

We recommend that the proposed expenditure for the Pump Stations - WS9 Pump Station/Rising Main be adjusted as detailed below:

Expenditure (2005/06 \$'000s)	2005/2006	2006/2007	2007/2008	2008/2009
Pump Stations - WS9 Pump Station/Rising Main	419	206	0	0

- ***Pump Stations – Other*** – the expenditure for this item was reported as increasing from \$1.0 million to \$1.35 million. Council advises that this is due to revisions to the expenditure for the 2005/06 Council budget.

A review of the AIR/SIR has indicated that the proposed expenditure over the review period increased from \$0.77 million to \$1.04 million. The proposed expenditure for the current submission is an average of about \$250,000 per year compared to the 2004/05 submission average expenditure of around \$200,000 per year and an average actual expenditure of about \$87,500 over the period 2000/01 to 2004/05.

Council has stated that they wanted to increase the base expenditure to \$250,000 per year to more accurately reflect the future expenditure requirements. However, without justification for why the proposed expenditure should increase significantly from a long term average, we believe that the proposed expenditure should remain, at most, the same as the 2004/05 submission if not closer to the long term average expenditure.

Council has provided additional information in response to the draft report which explains that the proposed increase in expenditure is required to cover consultants' fees and the coordination of land/easement purchases necessary for new/existing assets.

While we support the intention of this item, we have not seen any past or current actual expenditure to justify the increase in the proposed expenditure between the 2004/05 and 2005/06 submission and there was, in fact, no expenditure in 2004/05 although we note that approximately \$425,000 was previously scheduled for 2004/05.

We would also note that Council has identified that this item closely relates to the development of the asset management system and we would point out that this system is not scheduled to be implemented until 1 July 2007. We would suggest that Council review actual expenditure on this item as a basis for setting proposed expenditure levels for the next price path period beginning 2009/10.

The additional information provided has not changed our view for this project and we reiterate our recommendation that the expenditure for the current price path period be kept at the figures approved in the 2004/05 review.

Recommendation

We recommend that the proposed expenditure for the Pump Stations - Other be adjusted as detailed below:

Expenditure (2005/06 \$'000s)	2005/2006	2006/2007	2007/2008	2008/2009
Pump Stations – Other	200	195	190	186

- ***Treatment – Other*** – we note that there is a small mistake in the information supplied by Wyong Council for this item. The capital expenditure for this item is new for the price path period at just over \$1.16 million. The AIR/SIR indicates that this item covers consultants' fees.

A review of the AIR/SIR indicates that the historical expenditure for this item is variable and the item is often not included in the forecast expenditure. The AIR/SIR indicates that the average actual expenditure on this item has been approximately \$320,000 per year over the period 2000/01 to 2004/05. The proposed expenditure for the current review is about \$100,000 per year, excluding the initial expenditure in 2005/06 of an additional \$635,000. This indicates that the proposed base expenditure on this item is well in line with historical expenditure.

If Council wishes this item to be a regular program of expenditure, then the expenditure should be the same or similar each year. We believe that the initial expenditure of \$736,000 should not be accepted and should be reduced to the proposed on-going expenditure allowance of \$100,000. It is not good practice to adjust on-going works programs to coincide with the commencement of new price path periods. On this basis we recommend that the proposed expenditure be adjusted.

Council provided additional information in response to the draft report indicating that the additional expenditure proposed in 2005/06 relates to replacement of flow measurement equipment, odour control equipment, treatment improvement equipment, and power supply improvements.

We again reiterate our previous comments in respect to ongoing programs of expenditure (refer item "Reservoir – Repainting/Re-roofing" on pages 28-29) and would recommend that Council either maintain a regular level of proposed expenditure for this item or allocate expenditure to specific projects only.

Recommendation

We recommend that the proposed expenditure for the Treatment – Other be adjusted as detailed below:

Expenditure (2005/06 \$'000s)	2005/2006	2006/2007	2007/2008	2008/2009
Treatment – Other	100	100	100	100

- ***Treatment – WAS Pits*** – the proposed expenditure for this item is reported to be a new item in this submission with an allocation of \$118,000. Council advises that this item covers the construction of works that will assist in reducing on-going maintenance expenditure. Council advises that this item was identified in a review of operational practices conducted in early 2005.

The AIR/SIR indicates that the actual proposed expenditure is \$119,000 scheduled for 2005/06. We have no additional information on this project, however, we support the project as it proposes to reduce on-going maintenance expenditure and it appears to be a once-off occurrence. On this basis we accept the proposed expenditure.

Recommendation

We recommend that the proposed expenditure for the Treatment – WAS Pits be accepted as detailed below:

Expenditure (2005/06 \$'000s)	2005/2006	2006/2007	2007/2008	2008/2009
Treatment – WAS Pits	119	0	0	0

- ***Treatment – Replace Aerators Wyong South*** – the proposed expenditure for this item is reported to be a new item in the current submission with an allocation of \$417,000 in 2005/06. Council advises that this expenditure is related to the replacement of aerators in Tanks 1 and 2 at Wyong South STW. The works were identified from an inspection report completed in early 2005.

The proposed works are similar to the works undertaken on Tank 3 at the STW. A review of the AIR/SIR indicates that the actual expenditure for this item was about \$310,000 (nominal). The proposed expenditure of \$417,000 is comparable to this previous actual cost. We have no other information but, on the basis of the comparison with the previous works, we are prepared to accept the proposed expenditure.

Recommendation

We recommend that the proposed expenditure for the Treatment – Replace Aerators Wyong South be accepted as detailed below:

Expenditure (2005/06 \$'000s)	2005/2006	2006/2007	2007/2008	2008/2009
Treatment – Replace Aerators Wyong South	417	0	0	0

- ***Treatment – Roadway Wyong South*** – the proposed expenditure for this item is reported to be a new item for the current submission with an allocation of \$238,000. Council advises that the expenditure relates to the replacement of the access road into the Wyong South STW, which was identified as being required during a detailed inspection in early 2005.

We have received no information relating to this project, however, we believe that the project is appropriate. We are prepared to accept the project on the basis that access to the STW is an important part of on-going operations and monitoring programs.

Recommendation

We recommend that the proposed expenditure for the Treatment - Roadway Wyong South be accepted as detailed below:

Expenditure (2005/06 \$'000s)	2005/2006	2006/2007	2007/2008	2008/2009
Treatment - Roadway Wyong South	238	0	0	0

- ***Mains – Other*** – the proposed expenditure for this item is reported as being new for the current submission with an allocation of \$129,750. Council advises that the expenditure was previously included in the “Unidentified Items” category in the 2004/05 submission. The expenditure relates to minor standards related works.

We support Council’s decision to remove this item from the unidentified items category. A review of the AIR/SIR indicates that Council is planning to set this item as an on-going program of expenditure. The proposed expenditure of \$25,000 per year is consistent with the only figure for actual expenditure for this item of about \$25,000 in 2003/04. On this basis we accept the proposed expenditure.

Recommendation

We recommend that the proposed expenditure for the Mains – Other be accepted as detailed below:

Expenditure (2005/06 \$’000s)	2005/2006	2006/2007	2007/2008	2008/2009
Mains – Other	30	24	24	23

- ***Pump Stations – Other*** – the proposed expenditure for this item has been reported as being a new item in the current submission with an allocation of \$83,300 in 2005/06. Council advises that this expenditure covers the provision of OH&S equipment, the need for which was identified as part of on-going condition monitoring inspections.

A review of the AIR/SIR indicates that there has been expenditure related to this item in previous submissions. In the 2004/05 submission approximately \$40,000 was allocated for this item, whilst historical average actual expenditure on this item has been about \$110,000 per year.

The proposed expenditure is therefore in line with the historical average and on this basis we are prepared to accept the expenditure.

Recommendation

We recommend that the proposed expenditure for the Pump Stations - Other be accepted as detailed below:

Expenditure (2005/06 \$’000s)	2005/2006	2006/2007	2007/2008	2008/2009
Pump Stations - Other	83.3	0	0	0

- **Unidentified Works** – the proposed expenditure for this item, as included in the current AIR/SIR, is \$7.72 million, which is a decrease on the proposed expenditure in 2004/05 of \$10.35 million. This decrease is a result of some expenditure being removed and allocated to more specific projects.

In our opinion, the proposed expenditure in this category is still too high. Comments from the 2004/05 review indicated that Atkins/Cardno proposed reducing the expenditure in this category by 50% and we believe that there is still scope for further reductions in this category.

We initially proposed to recommend a further reduction in this category by 25% to facilitate the removal of expenditure from this category. This brought the maximum allowable expenditure to about \$5.79 million which we allocated in the same proportions as Council's submission.

Council provided additional information in response to the draft report which explained that the "Unidentified Works" category covers expenditure items that arise and cannot always be identified in advance. We have subsequently further reviewed the allowance for this category of works.

As per our comments on the "Unidentified Works" category for water supply projects, we support some allowance for unidentified contingency works, however, we do not support the level proposed by Council. **Table 3-9** shows the expenditure proposed in this category as compared to the total yearly program proposed by Council.

Table 3-9 Unallocated Sewerage Works compared to Proposed Total Sewerage Program

Expenditure (2005/06 \$'000s)	2005/2006	2006/2007	2007/2008	2008/2009
Unidentified Works – proposed	0	1,609	2,629	3,069
Total Sewer Program – proposed	7,347	11,794	10,501	9,576
% Unidentified Works	0	14%	25%	32%

The table shows that in the final year of the price path review period the proposed expenditure for unidentified works amounts to almost one third of the total proposed expenditure. It is our opinion that this percentage is too high.

We again recommend that Council's proposed expenditure for the "Unidentified Works" be adjusted to a sliding scale, which reflects an increasing degree of uncertainty for future projections over the forecast period. We propose that the allocation be determined in accordance with the following:

- a limit of 10% of the total recommended expenditure for sewerage works in the 2006/07 year;
- a limit of 15% of the total recommended expenditure for sewerage works in 2007/08; and
- a limit of 20% of the total recommended expenditure for sewerage works in the final year of the price path period 2008/09.

Recommendation

We recommend that the proposed expenditure for “Unidentified Works” be adjusted as detailed below:

Expenditure (2005/06 \$'000s)	2005/2006	2006/2007	2007/2008	2008/2009
Unidentified Works	0	1,001	1,172	1,289

3.10

Capital Expenditure for Projects Not Reviewed

The scope of our review has limited our assessment to only those AIR/SIR items that have changed in value greater than IPART’s nominated materiality threshold of \$40,000 over the review period. This has meant that there are a large number of projects that have either changed by less than \$40,000 or have not changed at all, which are not included in our total expenditure forecasts.

In preparing the draft report we adopted a method which we believed appropriately accounted for Atkins/Cardno’s recommendations in the total capital expenditure. The method generally involved calculating the percentage adjustment Atkins/Cardno’s had recommended in the total capital expenditure for water and wastewater, then applying that percentage adjustment to the total value of the projects that we had not reviewed. This adjusted expenditure was then added to the total value of the individual projects we had reviewed to determine the overall total capital expenditure.

We recognised that this method essentially applies a blanket reduction to the capital expenditure, however, at the time it appeared to be the most appropriate method available to us to determine the overall total capital expenditure. We continued to investigate alternative methods of accounting for Atkins/Cardno’s recommended adjustments following issue of the draft report and have now identified what we believe to be a more accurate approach.

We have been able to review Atkins/Cardno’s recommended adjustments in detail and now believe we can apply these adjustments individually to specific projects. We also believe that we have incorporated the majority of the adjustments in our detailed review of individual projects. We now also propose to apply

Atkins/Cardno's efficiency targets separately and have proposed some revised targets as outlined in **Section 3.11**.

Our method of calculating the total capital expenditure is now quite simple. We identify the difference between Council's total proposed expenditure, as reported in the AIR/SIR, and the total value of capital expenditure for the projects we have reviewed. The difference is then added to the total value of capital expenditure we have recommended for the individual projects to show the total capital expenditure for all the water, wastewater, and stormwater projects. This method is also shown in the Capex Form included in **Appendix B**.

3.11

Capital Efficiency Targets

Halcrow Management Sciences, IPART's consultants for the 2002/03 review of Gosford Council, recommended that no capital efficiencies be included in the forecast capital expenditure. The reasons given for this recommendation were related to the state of Council's asset management planning, the short price path period proposed, the fact that capital efficiencies are hard to achieve on projects that have already commenced, and the representations made by Council during the review of the draft report.

IPART's consultants for the 2004/05 review, Atkins/Cardno, proposed a common set of efficiency targets, that increased each year, for water and wastewater expenditure. Atkins/Cardno based their efficiency targets on their review of Council's processes compared with what was best practice at the time throughout Australia and England. The quantitative figures were based on actual process improvements achieved by water agencies in England and Wales over the period 2000 to 2004, and Atkins/Cardno advised that they adopted values equal to half these actual efficiency gains in determining the recommended efficiency targets for Council.

We have not specifically investigated new capital efficiency targets for Wyong Council but have reviewed the targets set by Atkins/Cardno in the context of the current environment faced by Council and the proposed capital expenditure forecasts.

We recognise that Wyong Council is dealing with a record drought at present and that a high proportion of the capital expenditure, at least in 2005/06 and 2006/07, is a result of drought contingency works and also that the majority of these works are already underway. We agree with Halcrow Management Sciences' view that capital efficiencies are hard to achieve for projects that have already commenced.

We therefore propose to introduce similar capital efficiency targets to those recommended by Atkins/Cardno, but with the timing of these targets delayed to recognise the issues highlighted above.

We recommend setting the capital efficiency targets shown below and we have included these targets in our calculation of the allowable capital expenditure:

Capital Efficiency Targets	2005/2006	2006/2007	2007/2008	2008/2009
Water, Wastewater, & Stormwater Efficiency Targets	0	0	2.5%	5%

3.12

Historical Capital Expenditure Review

In previous determinations, IPART has identified the issue of Council's proposed versus actual expenditure as a key factor in the review of prices. IPART's consultants for the previous reviews raised concerns about the ability of Council to deliver their proposed capital works programs and for the current review, IPART has again highlighted this issue as an important consideration.

We have reviewed the difference between Wyong Council's proposed and actual capital expenditure over the period from 2000/01 to 2004/05. The comparison is useful in identifying how Council performs in achieving their capital expenditure forecasts and gives an insight into how Council is likely to perform in future years.

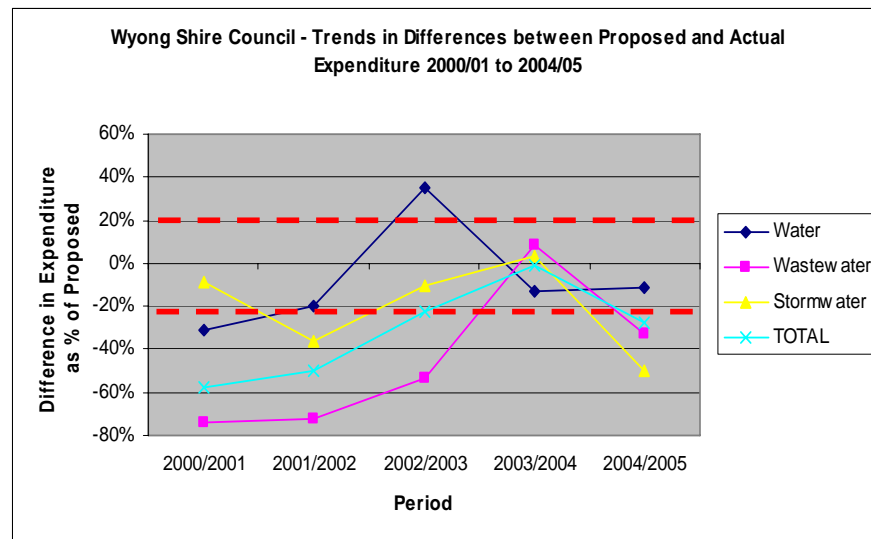
We have identified the expenditure differences in the water, wastewater, stormwater and total capital programs in **Table 3-10**. This information shows there are some significant differences between the proposed and actual expenditure, especially when considering the individual programs (water, wastewater and stormwater).

The data in **Table 3-10** is also presented graphically in **Figure 3-1**. We have suggested a band of $\pm 20\%$ as a target range for difference between proposed and actual expenditure.

Figure 3-1 shows that, in general, the difference between Council's total proposed and total actual expenditure is outside our suggested target range and individually the difference between proposed and actual expenditure for water, wastewater and stormwater varies significantly from year to year. The trend in total expenditure appears to be heading into the target range, however, we note that the result in 2004/05 is trending back outside the target range due to a poor performance in stormwater.

**Table 3-10 Comparison of Proposed Vs Actual Expenditure for Wyong Council
- 2000/2001 to 2004/2005**

Year	Program	Proposed	Actual	Difference	
		(2005/06 \$'000s)			
2000/01	Water	4,488	3,079	-1,409	-31%
	Wastewater	22,316	5,796	-16,520	-74%
	Stormwater	4,987	4,547	-440	-9%
	TOTAL	31,791	13,421	-18,369	-58%
2001/02	Water	4,672	3,734	-939	-20%
	Wastewater	9,417	2,633	-6,784	-72%
	Stormwater	5,358	3,399	-1,959	-37%
	TOTAL	19,447	9,765	-9,682	-50%
2002/03	Water	2,637	3,554	916	35%
	Wastewater	6,841	3,218	-3,624	-53%
	Stormwater	4,885	4,365	-520	-11%
	TOTAL	14,364	11,136	-3,227	-22%
2003/04	Water	8,965	7,817	-1,148	-13%
	Wastewater	8,356	9,056	701	8%
	Stormwater	5,090	5,266	175	3%
	TOTAL	22,411	22,139	-272	-1%
2004/05	Water	15,107	13,380	-1,727	-11%
	Wastewater	7,910	5,345	-2,565	-32%
	Stormwater	9,135	4,606	-4,529	-50%
	TOTAL	32,152	23,332	-8,820	-27%



**Figure 3-1 Comparison of Proposed Vs Actual Expenditure for Wyong Council
- 2000/01 to 2004/05**

IPART's consultant for the 2002/03 review, Halcrow Management Science, raised concerns over Council's ability to deliver on proposed projects within the determination period. Atkins/Cardno, IPART's consultant for the 2004/05 review, commented that these concerns had been justified and that they had the same concerns for the determination period covered by the 2004/05 review. IPART's determination for the 2004/05 review indicated that the Tribunal had taken into account recommendations to re-phase the expenditure program and in some cases reduce the level of activity.

For the current review, the results shown in **Table 3-10** and **Figure 3-1** indicate that Council still has difficulty in achieving the level of capital expenditure proposed in its submissions. This is of particular concern given the current Council submission where the proposed expenditure has significantly increased. **Figure 3-2** shows the actual expenditure over the period 2000/01 to 2004/05 (solid lines) and the proposed expenditure over the period 2005/06 to 2008/09 (dotted lines), as submitted by Council.

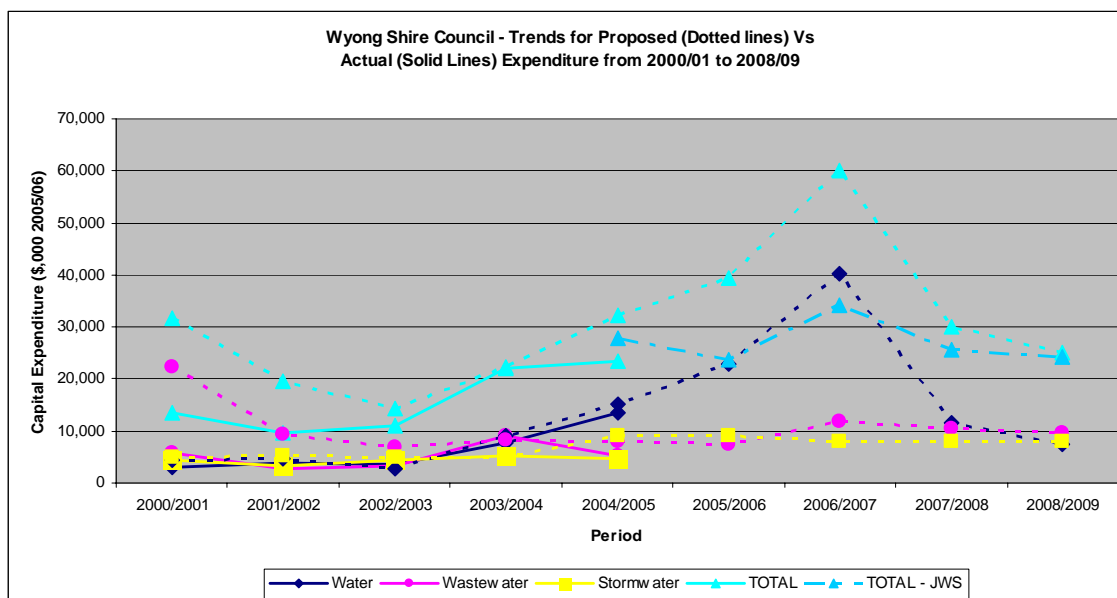


Figure 3-2 Comparison of Proposed and Actual Expenditure - Wyong City Council - 2000/01 to 2008/09

As shown in **Figure 3-2**, the proposed capital expenditure for 2005/06 and 2006/07 is approximately \$39.3 million and \$60.2 million respectively. These are very large increases in the capital program and there is concern that, based on the historical performance for actual capital expenditure, Council's ability to fully meet the forecasts is an important consideration.

We note, however, that Council has allowed expenditure for project management of joint water supply (JWS) works which is, on average, just over 3.6% of the total proposed expenditure on the JWS works. This is a reasonable figure and close to the often used assumption that project management comprises approximately 2.5% of the capital cost. We have assumed that the project management expenditure will cover the engagement of specialist project managers or consultants with this experience and as a result we have assumed that there is a higher likelihood of Council meeting its proposed expenditure forecasts.

If we exclude the JWS works from the “normal” capital program, we see that the proposed total capital expenditure rises from \$23.6 million in 2005/06 to \$34.2 million in 2006/07 and then drops back to around \$25 million for 2007/08 and 2008/09 as shown by the line “Total – JWS” in **Figure 3-2**.

We expect then that, although Council’s overall performance in achieving their proposed capital expenditure appears to have been improving, Council may still have difficulty in achieving the expenditure proposed in the review period. This would be especially of concern if Council’s performance in the achieving expenditure for wastewater and stormwater projects continues on its current trend (refer **Figure 3-1**).

Council has achieved actual expenditure of \$22 million and \$23 million in 2003/04 and 2004/05 respectively and we could expect Council to be able to maintain this level. However, given the discussion above, we are concerned that Council may not be able to achieve the proposed expenditure of \$34.2 million in 2006/07.

Assessment of the trend shown in **Figure 3-2** reveals that Council has achieved a growth of 10.9% in actual expenditure on non-JWS projects over the period 2000/01 to 2004/05, although the increase over the last two years has been only 5.4%. On this basis, we consider that it may be appropriate to limit the growth in expenditure to 5.4% over the review period, using the actual expenditure in 2004/2005 as the base for this growth.

We therefore propose that, as an alternative approach to the project based assessment, the proposed capital expenditure on non-JWS projects could be limited on the basis of historical performance to those shown below:

Expenditure (2005/06 \$'000s)	2005/2006	2006/2007	2007/2008	2008/2009
Potential Maximum Capital Expenditure on Non-JWS Projects	24,590	25,915	27,312	28,784

3.13

Recommended Capital Expenditure

We have reviewed the changes in capital expenditure for Wyong Council and the reasons for the changes to determine the recommended capital expenditure forecasts for the price path period.

We have taken into account the explanations provided by Wyong Council in the detailed interviews and in subsequent discussions. We have also applied our own judgement, and considered the comments and recommendations from the 2004/05 review, to make our recommendations.

In the draft report we recommended that the following adjustments to the proposed capital expenditure were appropriate:

- Reduction of \$0.35 million from the desalination plant project.
- Reduction of \$4.99 million from JWS Mardi High Lift Pump Station and Associated Works
- Reduction of \$3.0 million from JWS Mardi Dam Transfer System project.
- Reduction of \$0.104 million from Water - Reservoirs - Repainting/ Re-roofing.
- Reduction of \$0.158 million from Water - General (Communications/ Equipment - Refurbish Telemetry.
- Reduction of \$1.67 million from Water - Mains - Trunk main Wamervale to Bushells Ridge.
- Reduction of \$0.29 million from Water - Mains - Entrance/North Entrance Trunk Main.
- Reduction of \$0.10 million from Water -Mains/Pump Station General Items.
- Reduction of \$0.054 million from Sewer – Treatment - General Mech/ Refurbishment
- Reduction of \$0.07 million from Sewer - Treatment - Civil Refurbishment.
- Reduction of \$0.186 million from Sewer - General - Refurbish Telemetry.
- Reduction of \$0.362 million from Sewer - Pump Stations - B3/B4 & RM.
- Reduction of \$0.253 million from Sewer - Pump Stations - B11/B13 PS.
- Reduction of \$0.089 million from Sewer - Pump Stations - WS29/31 A/B Elec/Mech.
- Reduction of \$0.042 million from Sewer - Pump Stations - WS9 PS/RM.
- Reduction of \$0.269 million from Sewer - Pump Stations - Other.
- Reduction of \$0.637 million from Sewer - Treatment - Other.
- Reduction of \$1.93 million from Sewer - Unidentified Works.
- Reduction of \$6.7 million from Stormwater Projects.

Subsequent to discussions with Wyong Council and IPART at a review of the draft report, Council provided additional information regarding the projects where we had proposed adjustments. This information has been described in the discussion on the various projects to which it relates. As a result of the information provided, we have found it appropriate to revise some of the recommendations made above.

We have also reviewed Atkins/Cardno's recommended efficiency targets and after taking into account the current circumstances faced by Council we have reviewed these original values and recommended new targets.

We now recommend that the following adjustments to the proposed capital expenditure are appropriate:

- Reduction of \$2.825 million from JWS Mardi High Lift Pump Station and Associated Works.
- Reduction of \$0.980 million from JWS Mardi Dam Transfer System project.
- Reduction of \$0.104 million from Water - Reservoirs - Repainting/Re-roofing.
- Reduction of \$0.158 million from Water - General (Communications/Equipment) - Refurbish telemetry.
- Reduction of \$0.165 million from Water - Mains - Entrance/North Entrance Trunk Main.
- Reduction of \$0.10 million from Water - Mains/Pump Station General Items.
- Reduction of \$5.952 million from Unidentified Works
- Reduction of \$0.054 million from Sewer - Treatment - General Mech/Refurbishment
- Reduction of \$0.070 million from Sewer - Treatment - Civil refurbishment.
- Reduction of \$0.186 million from Sewer - General - Refurbish telemetry.
- Reduction of \$0.253 million from Sewer - Pump Stations - B11/B13 PS.
- Reduction of \$0.042 million from Sewer - Pump Stations - WS9 PS/RM.
- Reduction of \$0.269 million from Sewer - Pump Stations - Other.
- Reduction of \$0.637 million from Sewer - Treatment - Other.
- Reduction of \$3.806 million from Sewer - Unidentified Works.
- Reduction of \$9.736 million from Stormwater Projects.
- Reduction of \$1.470 million on the total capital expenditure for proposed capital efficiency targets

The Council's proposed capital expenditure and our revised recommended allowable capital expenditure are summarised in **Table 3-11** with full details provided in the Capex Form presented in **Appendix B**.

*Table 3-11 Original and Recommended Allowable Capital Expenditure
- Wyong Council - 2005/06 to 2008/09*

Council's Proposed Capital Expenditure (2005/06 \$'000s)	2005/06	2006/07	2007/08	2008/09
Water	\$22,833	\$40,345	\$11,499	\$7,394
Sewerage	\$7,347	\$11,794	\$10,501	\$9,576
Stormwater	\$9,138	\$8,051	\$8,037	\$8,024
TOTAL	\$39,318	\$60,190	\$30,037	\$24,993
Total Recommended Capital Expenditure (2005/06 \$'000s)	2005/06	2006/07	2007/08	2008/09
Water	\$22,232	\$38,436	\$7,645	\$3,291
Sewerage	\$6,127	\$11,015	\$8,763	\$7,349
Stormwater	\$5,067	\$5,573	\$5,977	\$6,406
TOTAL	\$33,425	\$55,024	\$22,384	\$17,046

In response to IPART concerns, we have also investigated Council's historical performance in achieving proposed capital expenditure (refer **Section 3.12**). We have identified that Council has experienced some difficulty in achieving their proposed levels of expenditure, and have proposed an alternative assessment of the total capital expenditure to account for this historical trend.

Assuming that the project management expenditure allowed in respect to the joint water supply (JWS) projects will be adequate to ensure implementation of the JWS projects through the use of external consultants, **Table 3-12** shows the maximum level of capital expenditure that we consider could be achieved by Council on the basis of historical performance.

*Table 3-12 Proposed Maximum Expenditure Based on Historical Performance
- Wyong Council - 2005/06 to 2008/09*

Alternative Capital Expenditure based on Historical Performance (\$'000 2005/06)	2005/06	2006/07	2007/08	2008/09
Potential Maximum Capital Expenditure on Non-JWS Projects	\$24,590	\$25,915	\$27,312	\$28,784
Capital Expenditure on JWS Projects	\$15,103	\$24,064	\$1,910	\$695
Maximum TOTAL	\$39,693	\$49,979	\$29,222	\$29,479

A comparison between the recommended total capital expenditure levels presented in **Table 3-11** and the potential maximum expenditure levels based on historical performance presented in **Table 3-12** indicates that Wyong Council are unlikely to be able to achieve the recommended expenditure levels in 2006/07.

3.14

Conclusion

Figure 3-3 shows Wyong Council's proposed capital expenditure and the expenditure recommended on the basis of the assessment set out in this report. It also shows Council's 2004/05 capital expenditure submission as well as projections made by Atkins/Cardno for the same period (adjusted for inflation).

Wyong Council's 2005/06 submission has increased from their 2004/05 submission despite the reductions recommended in the Atkins/Cardno report and the Tribunal's decision on which the Halcrow/MMA projections are made.

Council has now taken steps to separately identify stormwater works within their submission, which serves to make the proposed expenditure transparent and is in line with previous recommendations. The impact of water sharing plans over the current review period is expected to be minimal.

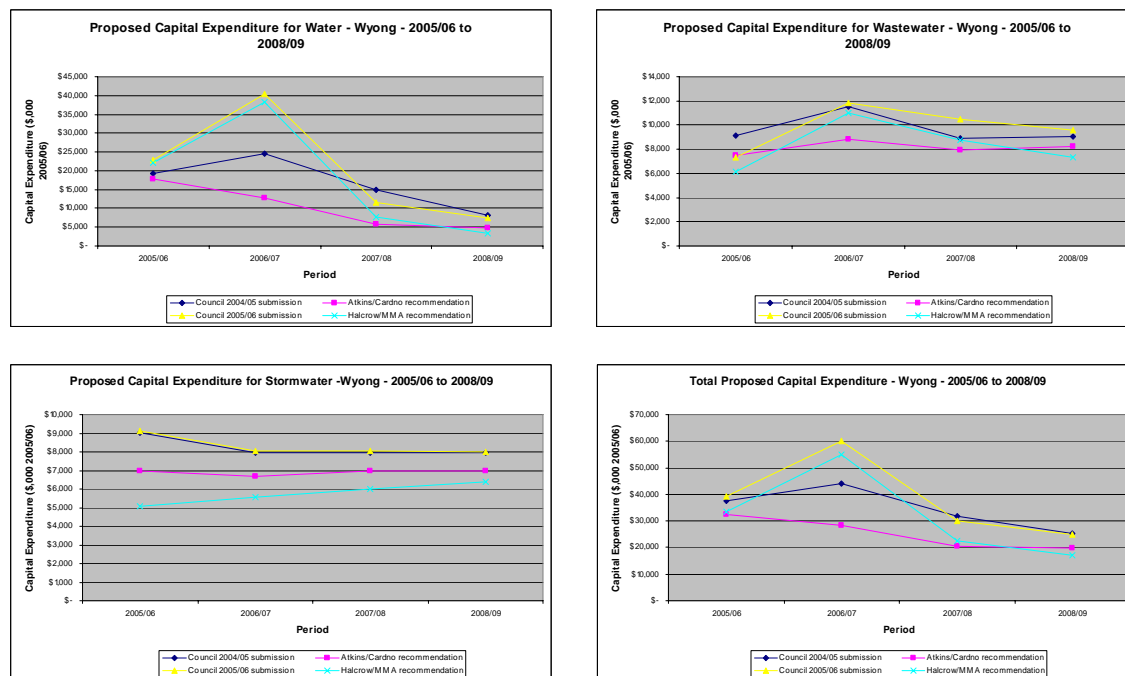


Figure 3-3 Wyong Council Proposed and Recommended Capital Expenditure Projections

4 Operational Expenditure

4.1 *Introduction*

This section discusses the issues related to operating expenditure in the Wyong Council's AIR submission. During the review, we held discussions with the Council and sought explanations concerning the following issues:

- Significant Actual (historical) Increases in Operating Cost (**Section 4.2**)
- Significant Projected Increases in Operating Cost (**Section 4.3**)
- Significant Changes to Projected Operating Costs between the 2004 submission and the current submission (**Section 4.4**)
- Basis of Corporate Cost Allocation to Water, Wastewater and Stormwater (**Section 4.5**)
- Historical Alignment of Budget to Actual Costs (**Section 4.6**)
- Performance Benchmarking (**Section 4.7**)
- Efficiency Targets (**Section 4.8**).

4.2 *Significant Actual Increases in Operating Cost*

A number of large increases in operating costs were noted in the current AIR submitted to the Tribunal. Council was asked to provide an explanation of these increases which was followed by discussions with Council staff to obtain a view on the reasonableness of these increases. The increases and their related explanations are detailed below:

- Significant increases in labour costs have occurred since 2002/03. The Council informed us that this was due to a change in the manner in which such costs were recorded. In 2004/05, Council changed over their computer system. The old system did not capture all the labour costs from drainage operations. In the new system, all labour costs were captured and as a result labour costs are seen to have increased. Council has provided adjusted 2002/03 and 2003/04 figures to align with the 2004/05 methodology. This has resulted in significantly lower increases and in line with award wage staff number increases.
- The 280% increase in the cost of hire and contract services from 2003/04 to 2004/05, the 625% increase in water and the 340% increase in wastewater costs recorded in the AIR are inter-related. These increases were due to the fact that in 2003/04, plant hire figures were recorded as "other". In both 2003/04 and 2004/05, plant hire amounted to over \$1.9 million. The remaining increase of about \$250,000 was a result of new

contracts for leakage detection which was deemed essential given the ongoing drought and associated water restrictions.

- The increase in the cost for external water consultants in 2004/05 was also drought related. An additional \$180,000 was spent funding a Joint Water Supply investigation associated with drought related works and \$130,000 was spent on Joint Water Supply catchment management consultancies associated with better protecting surface water sources.
- The approximately \$1.9 million increase in water reticulation was again largely drought related. The Council embarked on a retrofitting scheme where residents were provided subsidies to retrofit water efficient showerheads, water tanks and dual flush toilets in a bid to reduce water consumption. A similar exercise was also applied to Council property. In total, the retrofitting exercise amounted to over \$800,000 in 2004/05.
- Also included in this increase are the costs related to consultancy contracts worth \$410,000 for a Strategic Business Plan and an investigation for the proposed desalination plant. Another \$120,000 was spent undertaking a study on the feasibility of reusing water from Hunter Water.

4.3

Significant Projected Cost Increases

Similarly, a number of significant increases in the projected operating costs were noted in the Council's AIR submission. Council was asked to provide an explanation of these increases which was followed by discussions with Council staff to obtain a view on the reasonableness of these increases. The increases and their related explanations are detailed below:

- Council projected an increase in water labour costs. The main reason for this increase is to fund projects to address the need to augment water supply as a result of the drought. Groundwater projects are expected to cost over \$150,000 annually while water reuse projects are expected to cost about \$80,000 in 2005/06.
- The increase in water storage and abstraction in 2005/06 is due to the cost of the groundwater project to boost the supply of potable water.
- The \$250,000 increase in water hire and contract service in 2008 is related to a new contract for a program to detect system leakage.
- Higher bulk water purchase costs in 2006 to 2008 are related to the increased purchase of water from Hunter Water as a result of the larger connection capacity, as follows:

- From July 2004 to December 2004, approximately 3.5ML/day were purchased from Hunter Water at a cost of approximately \$275,000.
- In the second half of the financial year, the capacity was increased to 6ML/day at a cost of \$500,000. Total cost of bulk water purchase in 2005 was approximately \$775,000.
- Between July 2005 and July 2006, the capacity is expected to remain at 6ML/day, at a total cost of about \$1 million.
- In the second half of 2006, the water transfer capacity of the connection to Hunter Water is expected to reach 20ML/day. As a result, bulk water purchases are expected to amount to about \$2 million in 2007, increasing to about \$3 million in subsequent years.
- “Other” corporate costs are projected to increase in 2006 as a result of the need for higher contribution to fund drainage capital expenditure.

4.4

Significant Changes to Projected Operating Costs between the 2004 and Current Submissions

Of particular interest to the Tribunal are changes to the forecast costs between the 2004 and the current submissions. On instructions from the Tribunal, particular attention has been paid to key changes with a threshold that is greater than \$40,000. The following section summarises the key changes:

- The increase in connection capacity to Hunter Water was initially expected to be commissioned in early 2006. This is now not expected to be ready until the end of 2006.
- Forecast expenditures for water and wastewater have been based on an annual increase from the base year that allows for increasing:
 - salary/wage costs;
 - chemical and electricity costs;
 - demand associated with growth;
 - Occupational Health and Safety; and
 - environmental standards.
- The increase in wastewater sludge/effluent disposal was also due an allocation error in the previous submission that had recently been identified.
- An error in the stormwater opex has also been identified. Council advised that the stormwater works program for 2006 was \$1.3 million. This is approximately \$470,000 above the figure projected in 2004.
- A substantial increase in the number of constructed wetlands has increased drainage maintenance costs associated with maintaining these wetlands.

- New developments have led to an increase in drainage maintenance expenditure associated with these developments.

A comparative summary of the difference in projected operating expenditure between Wyong Council's 2004 AIR submission and the current submission is presented in **Table 4-1**, together with a brief explanation of the reasons for these differences.

Table 4-1 Comparison of 2005 AIR Opex Submission with 2004 AIR Opex Submission

Opex Item	Submission Differences (\$'000s)				Explanation for Differences
	2005/06	2006/07	2007/08	2008/09	
Corporate					
- management	-	-	-	-	
- customer/support services	-	-	-	-	
- other	- 14	- 17	- 17	- 12	
Total operating expenditure	- 14	- 17	- 17	- 12	
Water Service					
- storage, abstraction	4	59	- 294	- 698	Higher wages, material costs and environmental standards. Correction to previous allocation due to new computer system.
- purchase of bulk water	- 16	1,042	1,984	2,034	Increased purchase from Hunter Water due to drought.
- treatment	- 58	- 28	- 240	- 479	Higher wages, material costs and environmental standards. Correction to previous allocation due to new computer system.
- reticulation	1,522	1,698	1,181	520	Higher wages, material costs and environmental standards. Correction to previous allocation due to new computer system.
- customer/support services	-	-	-	-	
- demand management	-	-	-	-	
Total Water Opex	1,452	2,771	2,631	1,377	
- allocated proportion of Corporate	- 47	- 52	- 53	- 50	
Total operating expenditure	1,405	2,718	2,577	1,326	
Wastewater Service					
- collection/transportation	- 883	- 926	- 970	- 1,015	Correction to previous allocation due to new computer system.
- treatment	153	158	165	171	Higher wages, material costs and environmental standards. Correction to previous allocation due to new computer system.
- sludge/effluent disposal	1,063	1,112	1,161	1,215	Higher wages, material costs and environmental standards. Correction to previous allocation due to new computer system.
- customer services	-	-	-	-	
- wastewater reuse	-	-	-	-	
Total Wastewater Opex	333	344	356	371	
- allocated proportion of Corporate	57	60	62	65	
Total operating expenditure	389	404	418	435	
Stormwater Service					
- operation	471	490	510	530	Increased drainage maintenance costs due to the increased number of constructed wetlands and new developments.
- customer services	-	-	-	-	
Total Stormwater Opex	471	490	510	530	
- allocated proportion of Corporate	- 24	- 25	- 26	- 27	
Total operating expenditure	447	465	484	503	

4.5

Corporate Cost Allocation to Water, Wastewater and Stormwater

Wyong Shire is one of the fastest growing areas in NSW. Council indicates that over the next few years, average property growth is expected to be at around 1.9% pa. As a result, general cost to the Council is also expected to increase to meet the high growth in water demand. This cost increase will impact on the amount allocated to the Water Agency.

Cost allocation needs to be undertaken whenever joint or shared costs exist. Joint costs are incurred when services, processes, materials or equipment are used to produce more than one output product or service. Wyong Council provides water, wastewater and stormwater services that are price regulated, as well as general council operations like roads, parking, urban planning and recreational services that are not price regulated. To be effective in the economic/price regulation of the water related services, costs associated with providing non-regulated services should be removed from the cost base so that the costs of providing regulated services can be determined. It is clear that corporate and other services would normally be considered as joint costs and should be allocated on the basis of appropriate cost drivers.

The allocation of costs between different parts of a business is often arbitrary and can be highly controversial. Where there are direct cost drivers, costs can be causally allocated. However, indirect costs, such as the cost of corporate support functions, often do not have a simple cost driver. This creates the more complex task of attempting to allocate common costs which are not directly attributable. Proxies must then be found to form the basis for allocation. The key then, is to determine an activity based allocator which most closely reflects the actual cost drivers.

Wyong Council's corporate costs are allocated via an overhead model which allocates shared corporate costs to non-administration related areas of the Council (for example, Roads, Open Space, Buildings as well as Water and Wastewater). Corporate costs are captured in each of the administration areas such as IT, Finance, Staff Services, Strategic Planning, Executive Services & Governance, Legal etc. Cost drivers are assigned to activities in each of these areas. The cost drivers of the shared corporate activities allocated to Water, Wastewater and Stormwater are shown in **Table 4-2**.

Table 4-2 Cost Drivers for Allocation of Shared Corporate Cost to the Water Agency

Cost Activity	Cost Driver
IT Network	Number of PCs
PABX/phones	Number of telephones
Customer Service	
Switchboard	Estimated proportion by Administration Manager
Call Centre	Estimated proportion by Administration Manager
Counter Enquiries	Estimated proportion by Administration Manager
Reception	Estimated proportion by Administration Manager
Corporate Information	
Mail In/Out	Estimated proportion by Administration Manager
Document Registration	Estimated proportion by Administration Manager
Enquiries	Estimated proportion by Administration Manager
File/Document Movement	Estimated proportion by Administration Manager
Deliveries	Estimated proportion by Administration Manager
Plan Printing/Copying	Estimated proportion by Administration Manager
Equipment Maintenance	Estimated proportion by Administration Manager
Filing	Estimated proportion by Administration Manager
Supply	
Accounts Payable	Purchase Order distribution lines
Purchasing	Purchase Order distribution lines
Goods Receivable	Purchase Order distribution lines
Stores Issue	Stock Issues
Stores Delivery	Stock Issues
Financial Planning	
Cost Control	Number of responsibility/cost centres
Cash Management	Based on total cash expenditure
Fixed Assets	Assessed effort based on percentage of time spent
FBT	Number of private use vehicles per department
Revenue	
Sundry Debtors (including recovery)	Analysis provided by Manager of Finance
Staff Services	
Training Admin	Number of employees
Training Courses	Number of employees
Payroll - Autopay	Number of employees using autopay
Payroll - Timesheet	Number of employees using timesheets
Personnel	Number of employees
Organisational Development	Number of employees
Risk - Public Liability	Estimate based on historical claims
Risk - Industrial Special Risk	Fixed asset value (insured value)
Risk - Workers Compensation	Number of employees
Risk - General	Cash expenditure
Engineering Administration	
Buildings - Civic	Floorspace
Depots	Area used

We have one major concern with the cost allocation methodology. A number of cost drivers rely on estimations provided by the Administration Manager. This method of cost estimation is highly subjective and we would suggest that a log be kept of the usage of the activities concerned for a period of time, to support the Administration Manager's estimate. This will increase the rigour of the methodology and provide some justification for the estimate.

We initially had concerns with the quantum allocated to the Water Agency. In 2006/07, the corporate allocation is projected to amount to 43%¹ of total operating expenses. This seems to be a significantly higher amount than corporate cost allocations from other water agencies. In its 2005 determination on metropolitan water agency prices, the Tribunal allowed Sydney Water's corporate costs to amount to 18.6% of its total operating expenses over the 2005/06 to 2008/09 regulatory period while Hunter Water's corporate costs amounted to 23.5% of its total operating expenses over the same period. In January 2005, Victoria's Essential Services Commission (ESC) published studies conducted by PB Associates on Victoria's metropolitan Water Businesses which recommended average corporate cost allocations of around 13% of total operating expenses for the three metropolitan businesses. In November 2004, Barwon Water, in Victoria, provided data in its Water Plan to the ESC that indicated that its corporate costs amount to approximately 20% of its operating expenses. These figures suggest that the Council's allocation of corporate costs to its Water Agency is significantly higher than comparable water businesses.

We note that in its February 2005 report to the Tribunal, Atkins/Cardno² reached similar conclusions. This report stated that its own "top down benchmarking approach has also indicated that corporate costs are high" and it proposed a nominal opex decrease of \$500,000 per annum. In our draft report, we agreed with this recommendation and applied a \$500,000 pa reduction to Council's corporate cost allocation.

In response to our draft report, Wyong Council commented that its corporate cost projections include:

- \$7 million of Stormwater expenditure, of which \$350,000 relates to Stormwater corporate costs;
- \$3 million of salaries that in other water agencies would be directly costed to the area; and

¹ In 2006/07, allocated share of corporate cost is projected to amount to \$16.8m. Total operating expenses for Water, Wastewater and Stormwater is projected at \$39.1m.

² Atkins/Cardno, *Capex, Asset Management and Opex Review - Wyong Shire Council, Final Report*, February 2005

- \$827,000 of Joint Water Supply costs which would be recovered from Gosford.

It is then appropriate to remove \$6.7 million Stormwater related costs from the corporate allocation, as these costs have also been accounted for directly in the opex and capex sections of the Council's submission.³ Including Stormwater opex and capex in the corporate allocation as well as directly in the opex and capex sections is clearly double counting this expenditure. Council cannot expect to be recompensed twice for the same expenditure.

Council further provided details on the \$3 million of salary costs that are directly related to the Water Agency. It shows that about \$1.4 million of these costs relate to the Water Services and \$1.6 million to Wastewater Services. However, these costs are part of the corporate allocation instead of being directly allocated. We recommend that in future AIR submissions, these costs be removed from corporate allocations and be directly allocated to the Water and Wastewater Services.

Removing the \$3 million from the corporate allocation would reduce the percentage of corporate cost to 22.1% of total opex. This is broadly in line with other water agencies and as such we do not propose to make any further adjustments to the Council's corporate allocation.

In its previous determination, the Tribunal approved a corporate cost allocation of \$8.8 million (2004/05 \$). We have used this allocation as a base for the 2006/07 allocation (see **Table 4-3**.) This is broadly consistent with the allocation after removing the double counting of Stormwater expenses and adjusting for inflation. The \$3 million salary cost is then removed from corporate allocation and allocated directly to Water (\$1.4 million) and Wastewater (\$1.6 million) to take into account the cost of salaries directly related to these services.

4.6

Historical Alignment of Budget to Actual Costs

We have also evaluated the accuracy of the Water Agency's budget by comparing it with the actual costs for each of the cost areas, that is, Water and Wastewater. As the Water Agency did not have responsibility for Stormwater in the past, the comparison was not made for this service.

³ \$1.3m directly in opex and \$5.4m in capex.

In Water, actual operating expenses (including corporate allocation) are consistently higher than budget opex, except in 2005. However, the differences are small except in 2003. The comparison is shown in **Figure 4-1**.

Similarly in Wastewater, operating expenditure budget is consistently lower than actual opex, except in 2005. The difference is again largest in 2003. The comparison is shown in **Figure 4-2**.

Overall, the alignment of budget with actual costs seems to be improving and in 2005, after including Stormwater costs, the difference is under \$200,000. This is shown in **Figure 4-3**. It may be a concern that over the whole period (2002 to 2005), actual costs exceeded budget. This may suggest that there is a ongoing under-recovery of costs which is unsustainable in the longer term. In 2004 and 2005, however, the differences between budget and actuals narrow. This may indicate that the trend may be correcting and that improvement in the budgeting process and closer cost control may reverse the trend.

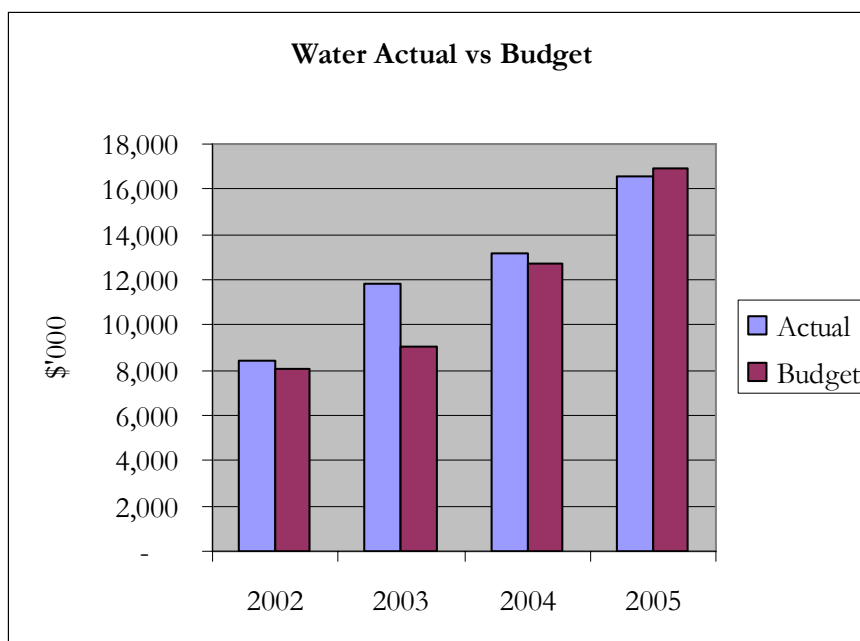


Figure 4-1 Comparison of Water Cost – Actual vs Budget

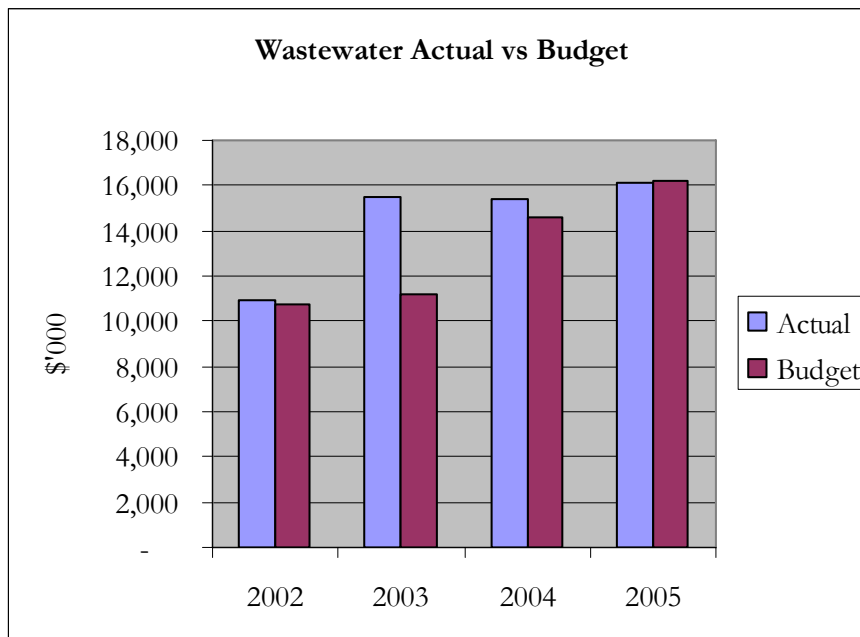


Figure 4-2 Comparison of Wastewater Cost – Actual vs Budget

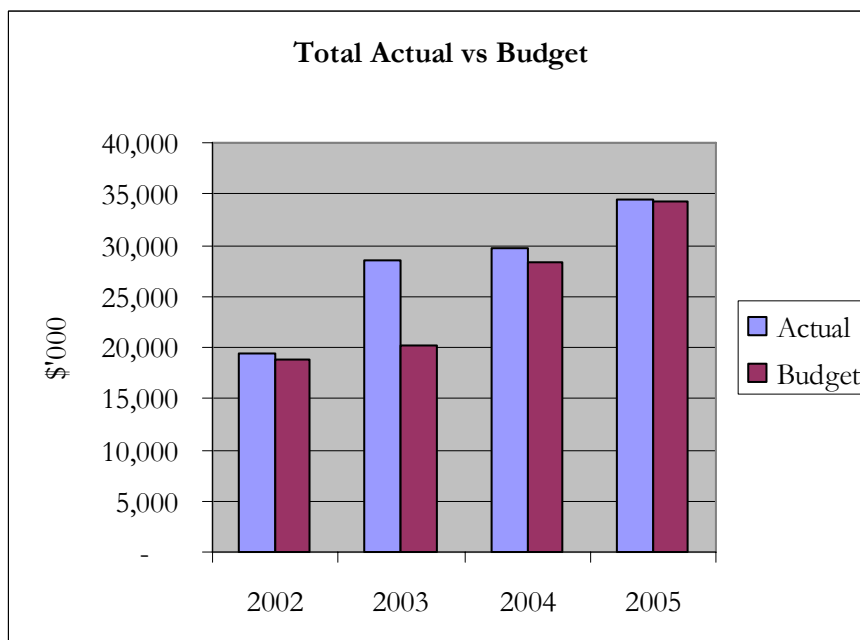


Figure 4-3 Comparison of Water Agency Cost – Actual vs Budget

4.7

Performance Benchmarking

Council provided performance benchmarks undertaken by the NSW Department of Energy, Utilities and Sustainability (DEUS) for water supply and sewerage. These benchmarks for 2003/04 indicate that in a number of performance indicators, the Wyong Council has been rated fairly highly, with economic efficiency generally rated as average or above average. In its response to the draft report, Wyong Council emphasised that based on the DEUS report, it is one of the top ten performing utilities, achieving broad compliance with Best Practice Management Guidelines for both water and sewage across a wide range of key performance indicators.

In Water with a rating of 5, the operating cost per 100km of mains has been rated as being in the lowest 20% of the State's water authorities. Operating cost per kL of water delivered has been rated as average, achieving a rating of 3. Operating cost per property has been rated at 1 which places it in the State's top 20%, Management has attracted a rating of 2, while other cost per property have also been rated in the second 20 percentile or average with a rating 3. These ratings suggest that there may be some scope for improving the operating efficiency of Water supply.

Although Sewerage rated average or above average for most benchmarks, Pumping Costs have been rated poorly at 5 and Sewer Main Operation and Maintenance Cost rated at 4. Operating cost per 100km of mains was rated as being in the second highest 20% with a rating of 2. Operating cost per kL and operating cost per property have both been average, being rated at 3. These ratings also suggest that there may be some scope for improving the operating efficiency of Wastewater services.

4.8

Efficiency Targets

In its submission to IPART, Wyong Council states that it has, in May 1998, adopted a policy providing for "*Workplace Reform and Continuous Improvement*". The aim of this policy is to enable a 1.5% pa improvement in labour productivity over the medium terms. The productivity improvement has been factored into their forecast of operating expenses.

Atkins/Cardno in its report to the Tribunal in 2005, suggested a 1.3% pa efficiency target for this regulatory period. In its *Expenditure Forecast Review for the Victorian Regional Urban Water Businesses* for the Victorian Essential Services Commission in December 2004, SKM "considered that a modest but reasonable target for productivity improvement" of 0.5% pa would be appropriate for the larger regional urban water businesses except for Central Highlands, which had proposed

explicit higher productivity targets. SKM also stated that 0.25% would be appropriate for the smaller regional urban water businesses. Currently undergoing its price review, Goulburn Murray Water has targeted a productivity improvement of 3.5% over the next 2 years, 5% within 3 years and 12% within 5 years. Information from the Australian Bureau of Statistics and the Productivity Commission suggest that productivity in Australia is increasing on average at about 1% pa.⁴

There is clearly an opportunity for the Wyong Council to modestly restrain while increasing its maintenance levels by increasing productivity. We have assumed a continuing capital and labour efficiency improvement of 1% pa over the next regulatory period which allows for improvement facilitated by new technology and innovation. This is a rate that all organisations, including efficient organisations, should achieve.

As a result, cost projections based on the average cost of providing prescribed services over the last four years have been adjusted by an estimate of operating expenditure improvements of 1% pa prior to any cost increases for new products or services like the Hunter Water connection, groundwater supplies or stormwater.

4.9

Recommended Projections

4.9.1

Recommendations

The resulting projections are provided in **Table 4-3**. These take into consideration the additional costs involved in establishing the increased capacity of the Hunter Water connections, additional groundwater sources and stormwater responsibilities, as well as the efficiency targets.

The efficiencies are applied to the operating cost forecast to determine a base operating expenditure profile with adjustments made for additional costs from new responsibilities.

4.9.2

Adjustments Made

All projections are made on the basis of the Tribunal's 2004/05 operating expenditure decision for 2005/06 adjusted for inflation based on the Tribunal's inflation estimate for 2005/06 at 2.4%. Other adjustments are as follows:

- An efficiency adjustment of 1% pa is made based on ABS and Productivity Commission estimates of average productivity growth of Australian companies.⁴

⁴ Productivity in the Market Sector, 5204.0 Australian System of National Accounts Table 22, Australian Bureau of Statistics, 7 Nov 2005 and Australia's Industry Sector Productivity Performance, Productivity Commission, November 2003

Table 4-3 Recommended Operating Cost Projections⁵

Item	Unit	2005/06	2006/07	2007/08	2008/09
Proposed by Council (nominal 2005/06 \$)		Base	Projections		
Corporate					
Projected operating expenditure	\$000	16,316	16,827	17,358	17,815
Water					
Projected operating expenditure	\$000	9,093	10,622	12,070	12,316
Wastewater					
Projected operating expenditure	\$000	9,849	10,310	10,790	11,285
Stormwater					
Projected operating expenditure	\$000	1,300	1,358	1,418	1,480
Total Projected Opex	\$000	36,558	39,117	41,636	42,896
Recommended Opex (real 2005/06 \$)					
Efficiency adjustment	%	-1% pa			
Growth adjustment	%	0.95% pa			
CPI	2.4%	2006	2007	2008	2009
Corporate		Base	Projections		
Base Corporate Allocation	\$000	9,011			
Adjustment for salary allocation		- 3,051			
Efficiency adjustment			- 90	- 61	- 62
Growth adjustment	\$000		85	57	59
Recommended Corporation Allocation	\$000	5,960	6,100	6,242	6,388
Water					
Efficiency adjustment	\$000		- 96	- 96	- 96
Growth adjustment	\$000		91	91	91
Adjustment for salary allocation	\$000	1,443			
Base Opex	\$000	9,635	9,629	9,624	9,618
Adjustment for bulk Hunter Water purchases	\$000		900	2,000	2,000
Adjustment for Groundwater	\$000	600	1,250	1,250	1,250
Recommended Water Opex	\$000	10,235	11,779	12,874	12,868
Wastewater					
Base Opex	\$000	9,523			
Adjustment for salary allocation	\$000	1,608			
Efficiency adjustment	\$000		- 111	- 111	- 111
Growth adjustment	\$000		105	105	105
Recommended Wastewater Opex	\$000	11,131	11,125	11,118	11,111
Stormwater					
Base Opex	\$000	1,300			
Efficiency adjustment	\$000		- 13	- 13	- 14
Growth adjustment	\$000		12	13	13
Recommended Stormwater Opex	\$000	1,300	1,330	1,362	1,393
Total Recommended Opex	\$000	28,626	30,334	31,595	31,761

⁵ Where required, adjustments made in projected forecast are based on revised AIR Table 3.3 figures provided by Wyong Council on 9 January 2006.

- Council estimates that average growth in the number of properties in the area will increase by 1.9% pa over the next six years (see **Section 4.5**). This growth is likely to lead to higher costs and we have provided an allowance for cost increases at half the rate of growth.
- The salary related direct expenditure of \$3 million is removed from the corporate allocation with \$1.4 million directly allocated to Water Services and \$1.6 million to Wastewater Services.
- Council provided additional information indicating that in 2005/06 they expect that the cost of bulk water purchases from Hunter Water will increase by \$100,000 from \$775,000 in 2004/05. This is approximately the same level of costs provided in the 2004/05 AIR. The cost of bulk water is expected to increase to approximately \$2 million in 2006/07 representing an increase of approximately \$1 million from the figure previously provided. From 2007/08 onwards, the additional capacity of the Hunter Water connection is expected to be fully available. Cost of bulk water purchases is estimated to be approximately \$3 million pa. This represents an additional cost of \$2 million pa, from that previously estimated.
- Council provided additional information indicating that in 2005/06 they expect the cost of extracting, monitoring and treating groundwater will cost around \$600,000 in 2005/06 and \$1.25 million pa thereafter. This is an additional cost as the previous submission had not envisaged the need for groundwater at this stage.

4.10

Conclusion

Figure 4-4 shows Wyong Council's 2005/06 opex request and the resulting recommended operating expenditure. **Figure 4-4** also shows the Council's 2004/05 opex submission, as well as projections made by Atkins/Cardno for the same period (adjusted for inflation).

Council's 2005/06 submission has increased from the 2004/05 submission despite the reductions recommended in the Atkins/Cardno report or the Tribunal's decision on which the Halcrow/MMA projections are made. The corporate allocation is basically at exactly the same level as the earlier submission despite significant reductions recommended by Atkins/Cardno and mandated by the Tribunal. We have recommended a significant reduction in corporate allocation to take into account the double counting of Stormwater costs and direct salary related costs.

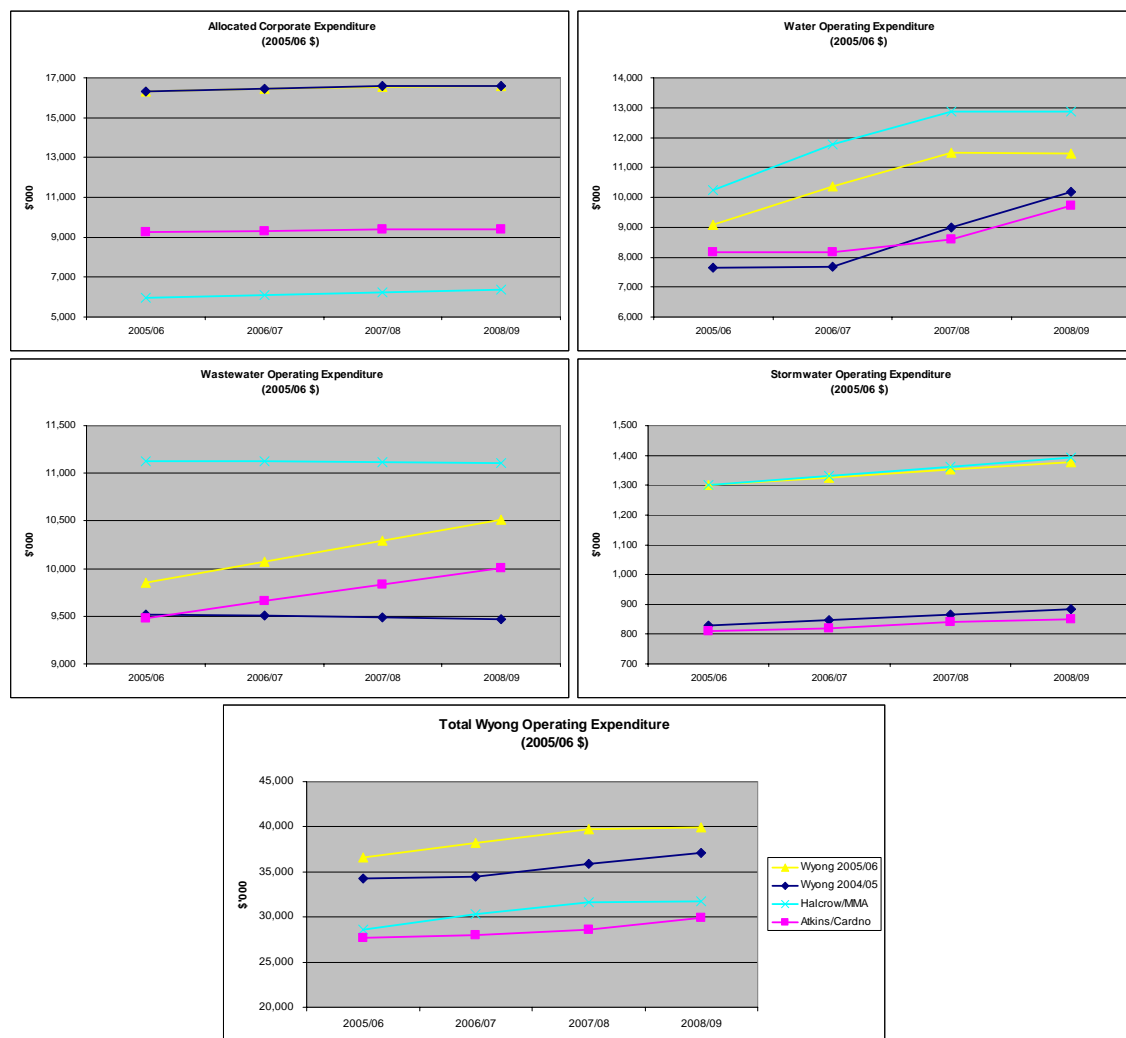


Figure 4-4 Wyong Council Operating Expenditure Projections

In Water Services, the impact of the drought has required Council to provide more resources to secure additional supplies from Hunter Water and groundwater, thus justifying the cost increases. In Wastewater Services, Council's projections now follow the trend projected by Atkins/Cardno, albeit with an initial step up of about \$350,000. Our recommended opex for Water and Wastewater Services are higher than the amounts Wyong Council applied for. This is due to the impact of re-allocating the direct cost of salaries from Corporate cost (\$1.4 million to Water services and \$1.6 million to Wastewater services).

In Stormwater, the Tribunal did not have to make a decision regarding opex in its 2005 ruling but required Wyong Council to improve the transparency of its Stormwater arrangements, with the intention of setting a separate stormwater

drainage charge to apply from 1 July 2006. In response, Council has explicitly provided a separate opex of \$1.3 million in the area.

Overall, Wyong Council applied for an opex of about \$39.3 million pa over the next three years, an increase of about \$3.5 million pa above their previous application. We recommend an average opex of \$31.2 million pa over this period which translates into an average reduction of about \$8.2 million pa. The single most important reason for this reduction is the removal of the double allocation of Stormwater expenditure in Corporate costs, amounting to \$6.7 million pa.

5 Asset Management

5.1 *Information Required*

A key part of the review process was to consider how the Wyong Council manages their assets. The interviews reviewed the current asset management system and identified any changes to the system made as a result of recommendations arising from the previous review by Atkins/Cardno. Additional expenditure has been proposed in Council's submission to upgrade, develop and implement a new asset management system. The review considered the justification for this proposed expenditure and the expected outcomes of the improved system to ensure that the expenditure is efficient.

Specific information that was requested for the interviews included the following:

- Details of the new or improved asset management system.
- Details of expenditure for the development and implementation of the new system.
- Details of expected outcomes from the new system.
- Details of any benchmarking of the new or improved system against existing best practice in Australia.

5.2 *Comments/Recommendations*

The following points summarise our discussions with Council regarding the status of their asset management system. Council are currently in the process of implementing a complete upgrade of their system, as follows:

- Council have identified the need to put in place an effective condition-based asset management system.
- Previously the asset management system was based on asset life expectations and records of failure, not a condition-based assessment.
- Council investigated the use of a computer based system first in April 2004.
- Consultants GHD were engaged to assess the most appropriate practice for asset management across Australia and this led to a set of recommended outcomes.
- Council has set a target date of June 2006 for asset management modelling for refurbishment.

- Council staff are currently disaggregating the current assets into appropriate asset types.
- A detailed maintenance strategy is also being developed for each asset type with a target completion date of 1 July 2006.
- Once this is done, all condition data can be put into the system.
- Council has stressed that this asset management system is not an off-the-shelf system. It is being developed by an external consultant for a group of five councils, but with each system meeting the specific requirements of each Council.
- Council expects to pilot the system in January or February 2006.
- The key issues for each asset category include:
 - Preparation of detailed management strategy;
 - Identification of strategies and required data to be in place ready to start capturing data from 1 July 2006; and
 - Implementation of system to use captured data to generate actions, including a customer relationship request. Each request has a follow up process if it is not completed within a certain timeframe. It will also be possible to generate a list of outstanding actions and requests.
- Council have appointed the following full-time staff to work on the asset management system:
 - Senior Assets Engineer;
 - Assets Engineer;
 - Capital Works Engineer; and
 - Systems Engineer.
- The major expenditure for the development and implementation phase will be the cost of the four staff. The development of the system is covered in corporate expenses. No specific allowance has been made in operating expenditure for data capture as it has been assumed that this process would be done as part of normal operation and maintenance activities.
- Council expects that at the end of the first year of operation they will be able to produce meaningful reports.
- Council advises that the system has been designed to be linked to the Council GIS to facilitate data transfer.
- A system is also in place to capture new assets from Council's financial system. If a new asset is to be capitalised, it will be captured in the asset management system.

- Council expects that once management strategies and data requirements have been documented, the process by which data is captured into the system will then be documented. This is expected to occur by 1 July 2006.

6 Summary Recommendations

6.1 *General*

This section provides a summary of our recommended total capital and operating expenditure for water, wastewater and stormwater, and operating expenditure for corporate activities related to water, wastewater and stormwater for Wyong Shire Council.

6.2 *Recommended Expenditure 2005/2006*

We have reviewed Wyong Council's 2005 AIR/SIR submission and its proposed capital and operating expenditure for 2005/2006 and have assessed whether the proposed expenditure is both prudent and efficient. We believe that some of the proposed expenditure is not prudent or efficient and have recommended some adjustments to the expenditure prior to incorporation into the regulatory asset base.

We recommend that the capital expenditure for 2005/06 as presented in **Table 6-1** is prudent and efficient and should be incorporated into the regulatory asset base.

*Table 6-1 Recommended Capital Expenditure for Wyong Council
- 2005/06*

Recommended Capital Expenditure Wyong Council (\$,000 2005/06)	2005/2006
Water	\$22,232
Wastewater	\$ 6,127
Stormwater	\$ 5,067
TOTAL	\$33,425

We recommend that the operating expenditure for 2005/06 as presented in **Table 6-2** is prudent and efficient and should be used as a base for the proposed operating expenditure.

**Table 6-2 Recommended Base Operating Expenditure for Wyong Council
- 2005/06**

Recommended Capital Expenditure Wyong Council (\$,000 2005/06)	2005/2006
Corporate	\$ 5,960
Water	\$10,235
Wastewater	\$11,131
Stormwater	\$ 1,300
TOTAL	\$28,626

6.3

Recommended Expenditure 2006/2007 to 2008/2009

6.3.1

Capital Expenditure

We have reviewed Wyong Council's 2005 AIR/SIR submission and its proposed capital expenditure for the price path period, 2006/2007 to 2008/2009, and have assessed whether the proposed expenditure is efficient. We believe that some of the proposed expenditure is not efficient and have recommended some adjustments to the proposed expenditure.

We recommend that the capital expenditure for the period 2006/2007 to 2008/2009, as summarised in **Table 6-3**, is efficient and should be included in the pricing assessment.

**Table 6-3 Recommended Capital Expenditure for Wyong Council
- 2006/2007 to 2008/2009**

Recommended Capital Expenditure Wyong Council (\$,000 2005/06)	2006/2007	2007/2008	2008/2009
Water	\$38,436	\$ 7,645	\$ 3,291
Wastewater	\$11,015	\$ 8,763	\$ 7,349
Stormwater	\$ 5,573	\$ 5,977	\$ 6,406
TOTAL	\$55,024	\$22,384	\$17,046

6.3.2

Operating Expenditure

We have reviewed Wyong Council's 2005 AIR/SIR submission and its proposed operating expenditure for the price path period, 2006/2007 to 2008/2009, and have assessed whether the proposed expenditure is efficient. We believe that some of the proposed expenditure is not efficient and have recommended some adjustments to the proposed expenditure.

We recommend that the operating expenditure for the period 2006/2007 to 2008/2009, as summarised in **Table 6-4**, is efficient and should be included in the pricing assessment.

*Table 6-4 Recommended Operating Expenditure for Wyong Council
- 2006/2007 to 2008/2009*

Recommended Operating Expenditure Wyong Council (\$,000 2005/06)	2006/2007	2007/2008	2008/2009
Corporate	\$ 6,100	\$ 6,242	\$ 6,388
Water	\$11,779	\$12,874	\$12,868
Wastewater	\$11,125	\$11,118	\$11,111
Stormwater	\$ 1,330	\$ 1,362	\$ 1,393
TOTAL	\$30,334	\$31,595	\$31,761

6.4

Other Issues

An issue of concern that has arisen during the review process relates to the robustness of the estimates used in forecasting capital expenditure. In some cases, the forecasts were based on estimates that had been prepared more than 10 years prior to preparation of the AIR/SIR.

We would recommend that Council adopt a more rigorous approach whereby capital cost estimates are reviewed at least at the start of every price review period and, preferably, on an annual basis. This process would at least lessen the impact of increases in the estimated capital expenditure and would also demonstrate Council's due process in maintaining the currency of their capital program.

We are also concerned that in the case of a number of "ongoing" programs, Council has proposed a significantly higher level of expenditure in the first year of the review period. We would recommend that Council either maintain a regular level of proposed expenditure for this item or allocate expenditure to specific projects only. Where specific projects have been identified for the first year of the review period, we would recommend that these be separately identified in the AIR/SIR submission.

Appendix A Other Items Listing

CAPITAL WORKS COMPARISON (DIFFERENCE > \$40,000) BETWEEN 2004 AND 2005 SPECIAL INFORMATION RETURNS

FOR PERIOD 2005/2006 - 2009/2010

1. WATER SUPPLY

SIR Item No.	Year 2005 - 2006		Year 2006 - 2007		Year 2007 - 2008		Year 2008 - 2009		Year 2009 - 2010		Totals		Difference between 2004 and 2005 SIR	2004 SIR Heading	2005 SIR Heading	Comparison Comments
	2004 Submission	2005 Submission	2004 Submission	2005 Submission	2004 Submission	2005 Submission	2004 Submission	2005 Submission	2004 Submission	2005 Submission	2004 Submission	2005 Submission				
W1														1. REFURBISHMENT (Discretionary Standards)		
W2														Treatment	Treatment	
W3	51	60	25	30	25	31	25	32	25	33	151	186	35	General Items	General Items	
W4	0	0	0	0	0	0	0	0	0	0	0	0	0	Other	Other	
W5														Reservoirs	Reservoirs	
																The major increase in expenditure is \$105,000 in 2005/2006. This was due to condition monitoring indicating that repainting of The Entrance Reservoir was required to be brought forward from 2010/2011 to 2005/2006. The estimated cost to undertake this work has been refined from a long term financial planning estimate to a pre-construction budget estimate.
W6	133	238	84	100	108	102	110	105	90	107	525	652	127	Repainting/Re-roofing	Repainting/Re-roofing	
																Covers items (level detectors) that have been identified and included in 2005/2006 budget as a result of ongoing condition monitoring/ inspections and field reports carried out subsequent to 2004 submission.
W7	0	56	0	0	0	0	0	0	0	0	0	56	56	Other	Other	
W8														Mains	Mains	
														Watermain Refurbishment	Watermain Refurbishment	
W9	256	250	263	263	270	270	277	277	284	284	1350	1344	6	Fittings and Tapping	Fittings and Tapping	
W10	308	300	315	315	322	322	329	329	336	336	1610	1602	8	Band Replacement	Band Replacement	
																Based on recent experience the projected level of rehabilitation work for 2005/2006 has been reduced from \$308,000 to \$100,000. Depending upon ongoing monitoring future expenditure on this work may also be able to be reduced.
W11	308	100	315	315	322	322	329	329	336	336	1610	1402	208	Rehabilitate Steel Mains	Rehabilitate Steel Mains	
W12	256	250	263	263	270	270	277	277	284	284	1350	1344	6	Main Adjustments (Roads/Drainage)	Main Adjustments (Roads/Drainage)	
W13	0	0	0	0	0	0	0	0	0	0	0	0	0	Upgrade Poly Mains to UPVC	Upgrade Poly Mains to UPVC	
W14	82	80	84	84	86	86	88	88	90	90	430	428	2	Water Meter Refurbishment	Water Meter Refurbishment	
																Covers items (pipeline crossing supports) that have been identified and included in 2005/2006 budget as a result of ongoing condition monitoring/ inspections and field reports carried out subsequent to 2004 submission.
W15	0	170	0	0	0	0	0	0	0	0	0	170	170	Other	Other	

W16													0	Pump Stations	Pump Stations	
W17	71	80	52	52	54	54	55	55	56	56	288	297	9	Overhaul Pumps/Valves	Overhaul Pumps/Valves	
W18	246	115	126	100	54	102	0	105	10	110	436	532	96	Electrical Refurbishment	Electrical Refurbishment	The forward programme for refurbishment of electrical equipment, eg. Switchboards, has been reviewed based on condition assessment and obsolescence rates. Indications are that increased expenditures will be required in this area.
W19	0	30	0	31	0	32	0	33	0	34	0	160	160	Other	Other (Critical Spares)	The 2005 Submission provides for an allowance for critical spares for pump stations. The 2004 Submission included this under "Unidentified Items".
W20	0	0	0	0	0	0	0	0	0	0	0	0	0	General (Communications/Equipment)	General (Communications/Equipment)	
W21	102	260	105	105	108	108	110	110	113	113	538	696	158	Refurbish Telemetry	Refurbish Telemetry	An order of cost estimate for ongoing telemetry refurbishment is incorporated into a long term works programme for planning purposes. This estimate covers a "base" workload such as replacement of RTU. The 2005/2006 estimate in the 2004 Submission reflects this situation. When the 2005/2006 annual budget was prepared requirements were again reviewed. Based on a need to update/replace software and increase system capacity, additional expenditure has been identified for 2005/2006. This is the major increase in expenditure (\$158,000).
W22	0	100	0	0	0	0	0	0	0	0	0	100	100	Refurbish 2-Way Radio System	Refurbish 2-Way Radio System	Completion of refurbishment of the 2 way radio system was originally planned for 2004/2005. Due to delays in implementation completion is now scheduled for 2005/2006.
W23	0	194	0	102	0	105	0	107	0	110	0	618	618	Other	Other (Office)	This covers replacement/purchase of minor office equipment eg computers, plant and small plant etc. In the 2004 Submission this expenditure was included under "Unidentified Items".

[illegible]

[illegible]

W59															3. STANDARDS (All Classes)		
W60															Treatment	Treatment	
W61	308	116	0	0	0	0	0	0	0	0	0	308	116	192	Fishway - Upper Ourimbah Creek Weir	Fishway - Upper Ourimbah Creek Weir	The initial estimate used in 2004 Submission was refined for the 2005 Submission based on experience in constructing the Lower Ourimbah Creek Fishladder.
W62	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Fishway - Lower Ourimbah Creek Weir	Fishway - Lower Ourimbah Creek Weir	
W63	0	400	0	0	0	0	0	0	0	0	0	0	400	400	Other	Ultraviolet Disinfection (Effluent Reuse)	Subsequent to the 2004 Submission the need for additional disinfection was adopted to enable residential reuse.
W64	0	200	0	0	0	0	0	0	0	0	0	0	200	200		Activated Carbon Plant (Mardi)	Subsequent to the 2004 Submission the need for an activated carbon plant was identified to remove tastes and odours resulting from algal blooms on Mardi Dam. The algae growth fertilised in the dam has increased significantly with higher nutrient water from ground water being pumped into the dam.
W65	0	50	0	0	0	0	0	0	0	0	0	0	50	50	Flowmeters	Flowmeters	The 2004 Submission did not foresee expenditure for new flowmeters beyond 2004/2005.However the imminent imposition of Water Sharing Plans requires that the existing Ourimbah Creek flowmeter needs to be replaced to improve accuracy for regulatory reporting purposes.This work will be undertaken in 2005/2006.
W66	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Other	Other	
W67	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Mains/Pump Stations	Mains/Pump Stations	
W68	133	240	137	143	140	147	143	150	146	155	699	835	136	136	General Items (Dismantling Pits/Valve Bypass/Motorised Valve/Backlog Metering)	General Items (Dismantling Pits/Valve Bypass/Motorised Valve/Backlog Metering)	An order of cost estimate for ongoing standards related expenditure for mains/pump stations is incorporated into a long term works programme for planning purposes. This estimate covers a "base" workload such as valve bypasses, dismantling pits etc. The estimate in the 2004 Submission reflected this situation. When the 2005/2006 annual budget was prepared requirements were again reviewed. Additional expenditure has been identified for the 2005/2006 budget.
W69	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Other	Other	

2. SEWERAGE

SIR Item No.	Year 2005 - 2006		Year 2006 - 2007		Year 2007 - 2008		Year 2008 - 2009		Year 2009 - 2010		Totals		Difference between 2004 and 2005 SIR	2004 SIR Heading	2005 SIR Heading	Comparison Comments
	2004 Submission	2005 Submission	2004 Submission	2005 Submission	2004 Submission	2005 Submission	2004 Submission	2005 Submission	2004 Submission	2005 Submission	2004 Submission	2005 Submission				
S1														1 REFURBISHMENT (Discretionary Standards)		
S2														Treatment	Treatment	
S3	51	104.72	52	52	53	53	54	54	56	56	266	319.72	53.72	General Mechanical/Refurbishme nt	General Mechanical/Refurbishme nt	An order of cost estimate is incorporated into a long term works programme for planning purposes. This estimate covers a base work load. The 2005/2006 estimate in the 2004 Submission reflects this situation. When the 2005/2006 annual budget was prepared requirements were again reviewed. Additional refurbishment items were identified for 2005/2006 resulting in an increase in expenditure (\$53,000).
S4	0	0	0	0	0	0	0	0	0	0	0	0	0	Overhaul Dewatering Equipment:	Overhaul Dewatering Equipment:	
S5	0	0	78	78	0	0	0	0	0	0	78	78	0	0 Bateau Bay	0 Bateau Bay	
S6	76	47.6	0	0	0	0	0	0	85	85	161	132.6	28.4	Toukley	Toukley	
S7	0	0	0	0	53	53	55	55	0	0	108	108	0	Charmhaven/Gwandalan /Wyong South/Mannerling Park	Charmhaven/Gwandalan /Wyong South/Mannerling Park	
S8	0	71.4	0	0	0	0	0	0	0	0	0	71.4	71.4	Replace Aerators (Tank 3) Wyong South STW	Fluid Couplings Aerators (Tank 3) Wyong South STW	Aerators were replaced at Wyong South in 2002.Fluid couplings is a separate job programmed for 2005/2006. The need to refurbish fluid couplings was identified by condition monitoring inspections undertaken in early 2005 (subsequent to 2004 Submission)
S9	20	89.25	21	21	21	21	22	22	45	45	129	198.25	69.25	Civil Refurbishment	Civil Refurbishment	An order of cost estimate for ongoing refurbishment is incorporated into the long term works programme for planning purposes.When the annual budget is prepared requirements are again reviewed in detail.Additional refurbishment items were identified for 2005/2006 resulting in an increase in expenditure (\$69,000).
S10	82	83.3	84	72	86	74	88	76	90	78	430	383.3	46.7	Flow Meter Refurbishment	Flow Meter Refurbishment	Minor adjustments to estimates. Covers items that have been identified and included in 2005/2006 budget as a result of ongoing condition monitoring/inspections and field reports carried out subsequent to 2004 Submission.
S11	0	78.54	0	0	0	0	0	0	0	0	0	78.54	78.54	Other	Other	

S12															Mains	Mains	
S13	306	238	312	300	321	308	330	316	339	324	1608	1486	122	Sewer Rehabilitation	Sewer Rehabilitation		The major decrease in expenditure is the contract cost (\$238,000) to undertake rehabilitation works at Chittaway Point is less than originally anticipated (\$300,000).
S14	102	100	204	204	107	107	110	110	113	113	636	634	3	Refurbish Effluent Disposal Mains	Refurbish Effluent Disposal Mains		
S15	0	0	0	0	0	0	0	0	0	0	0	0	0	Relay Rising Main WS12	Relay Rising Main WS12		
S16	0	59.5	0	51	0	52	0	53	0	54	0	269.5	269.5	Other	Other		This covers minor items associated with mains refurbishment such as vacuum pot reconditioning,CCTV inspections of mains etc. In the 2004 Submission future expenditure was included under "Unidentified Items".
S17															Pump Stations	Pump Stations	
S18	348	386.75	357	357	366	366	374	374	384	384	1829	1867.75	38.75	Valves/Pumps/Switchboard	Valves/Pumps/Switchboard		
S19	0	19	0	0	0	0	0	0	0	0	0	19	19	Refurbish WS8 (inc 50% growth)	Refurbish WS8 (inc 50% growth)		
S20	0	0	298	298	306	306	0	0	0	0	604	604	0	Refurbish C6/C7 (inc 50% growth)	Refurbish C6/C7 (inc 50% growth)		
S21	0	0	0	0	0	0	0	0	0	0	0	0	0	WS12A Rising Main (inc 50% growth)		0	
S22	0	0	0	0	0	0	0	0	0	0	0	0	0	Refurbish WS13 (inc 50% growth)		0	
S24	0	0	105	105	109	109	0	0	0	0	214	214	0	Refurbish WS1/WS4 Mech/Elect	Refurbish WS1/WS4 Mech/Elect		
S25	0	0	0	0	0	0	0	0	0	0	0	0	0	Other	Other		

S26															General	General	
S27	102	285.6	104	104	108	108	110	110	113	113	537	720.6	183.6	Refurbish Telemetry	Refurbish Telemetry	An order of cost estimate for ongoing telemetry refurbishment is incorporated into a long term works programme for planning purposes. This estimate covers a "base" workload such as replacement of RTU. The 2005/2006 estimate in the 2004 Submission reflects this situation. When the 2005/2006 annual budget was prepared requirements were again reviewed. Based on a need to update/replace software and increase system capacity, additional expenditure has been identified for 2005/2006. This is the major increase in expenditure (\$183,000).	
S28	0	83.3	0	0	0	0	0	0	0	0	0	83.3	83.3	Refurbish 2-Way Radio System	Refurbish 2-Way Radio System	Completion of refurbishment of the 2 way radio system was originally planned for 2004/2005. Due to delays completion is now planned for 2005/2006.	
S29	0	315.35	0	0	0	0	0	0	0	0	0	315.35	315.35	Mains Power at Scaddens Ridge	Mains Power at Scaddens Ridge	This work was originally planned for completion in 2004/2005. Delays in receiving statutory approvals will result in completion in 2005/2006.	
S30	0	104.72	0	80	0	82	0	84	0	86	0	436.72	436.72	Other	Other	This covers replacement / purchase of minor plant and office equipment eg computers, small plant etc. In the 2004 Submission future expenditure was embodied under "Unidentified Items".	

															2. GROWTH (Contributions / Other)		
															Treatment	Treatment	
S31															Wyong South - No 4 Aeration Tank/No 5 Aeration Tank	Wyong South - No 4 Aeration Tank/No 5 Aeration Tank	
S32	1024	850	1837	2000	0	0	0	0	0	0	2861	2850	11		Mannering Park (6000 EP)	Mannering Park (6000 EP)	
S33	0	0	0	0	81	105	1100	1075	848	825	2029	2005	24		6 Gwandalan (6000 EP)	Gwandalan (6000 EP)	
S34	0	0	0	0	0	0	83	107	1130	1100	1213	1207	6		22 Charmhaven (20000 EP)	Charmhaven (20000 EP)	
S35	512	357	2100	2050	1077	1260	0	0	0	0	3689	3667	22		0 Other	Effluent Reuse (Bateau Bay & Toukley)	
S36	0	0	0	0	0	0	0	0	0	0	0	0	0				
S37															Mains	Mains	
																	This relates to works identified under Development Servicing Plans. The level of works undertaken by Council in each year is dependent on growth requirements and the extent of works undertaken by developers. As such this item is highly variable. Review of requirements for the 2005/2006 budget resulted in a lower level of planned expenditure to that forecast for 2005/2006 in the 2004 submission.
S38	1607	755.65	1232	1203	828	807	1000	860	1000	880	5667	4505.65	1161.35		Section 94 Works (Undertaken by Council)	Section 94 Works (Undertaken by Council)	
																	This covers miscellaneous items associated with growth such as additional junction installation. In the 2004 Submission future expenditure was embodied under "Unidentified Items".
S39	0	60.69	0	50	0	52	0	54	0	56	0	272.69	272.69		Other	Other	

S40															Pump Stations	Pump Stations	
S41	0	0	0	0	0	0	0	0	0	0	0	0	0	0	B1 PS and Rising Main (inc 50% Refurbishment)	B1 PS and Rising Main (inc 50% Refurbishment)	
S42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	B9 PS and Rising Main (inc 50% Refurbishment)	B9 PS and Rising Main (inc 50% Refurbishment)	
S43	200	1428	0	373	0	0	0	0	0	0	0	200	1801	1601	B3/B4 PS and Rising Main (inc 50% Refurbishment)	B3/B4 PS and Rising Main (inc 50% Refurbishment)	The 2004 Submission predicted substantial expenditures in 2004/2005 (\$1200k) which did not eventuate due to project delays. The 2005 Submission is based on the tender price for the successful contractor.
S44	0	0	538	538	552	552	0	0	0	0	0	1090	1090	0	C16 PS and Rising Main (C3A)	C16 PS and Rising Main (C3A)	
S45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Divert WS16 to C13 (inc 50% refurbishment)		0
S46	0	0	0	0	0	0	499	86	0	410	499	496	0	0	WS34 PS Wet Well (inc 50% refurbishment)	WS34 PS Wet Well (inc 50% refurbishment)	
S47	0	29.75	0	0	0	0	0	0	0	716	0	716	29.75	686.25	B10 PS (inc 50% Refurbishment)	B10 PS (inc 50% Refurbishment)	Proposed expenditure in 2005/2006 represents a minor electrical upgrade. The 2004 Submission indicated that more extensive work would be completed by end of 2009/2010. The work has been deferred due to higher priority works. The work has now been programmed beyond 2009/2010.
S48	182	452.2	189	360	0	0	0	0	0	0	0	371	812.2	441.2	B11/B13 PS (inc 50% Refurbishment)	B11/B13 PS (inc 50% Refurbishment)	The initial estimate used in the 2004 Submission was refined in the 2005 Submission based on site conditions.
S49	0	0	158	158	162	162	0	0	0	0	0	320	320	0	T8 PS (inc 50% Refurbishment)	T8 PS (inc 50% Refurbishment)	
S50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	C23 PS and Rising Main	C23 PS and Rising Main	
S51	0	0	0	0	0	0	477	233	490	716	967	949	18	0	B9 Rising Main	B9 Rising Main	
S52	0	0	0	0	0	0	536	536	0	0	536	536	0	0	C2 PS (inc 50% Refurbishment)	C2 PS (inc 50% Refurbishment)	
S53	0	0	0	0	0	0	334	0	0	0	334	0	0	334	B5 PS and Rising Main (in 50% refurbishment)	B5 PS and Rising Main (in 50% refurbishment)	The 2004 Submission indicated that this work would be completed by end of 2009/2010. The work has been deferred due to higher priority works. The work has now been programmed beyond 2009/2010.
S54	0	0	0	0	0	0	178	0	0	0	178	0	0	178	B6 PS and Rising Main (inc 50% refurbishment)	B6 PS and Rising Main (inc 50% refurbishment)	The 2004 Submission indicated that this work would be completed by end of 2009/2010. The work has been deferred due to higher priority works. The work has now been programmed beyond 2009/2010.
S55	0	0	0	0	0	0	0	0	0	122	0	122	0	122	B7 PS Elect/Mech (inc 50% refurbishment)	B7 PS Elect/Mech (inc 50% refurbishment)	The 2004 Submission indicated that this work would be completed by end of 2009/2010. The work has been deferred due to higher priority works. The work has now been programmed beyond 2009/2010.
S56	203	0	0	205	0	0	0	0	0	0	0	203	205	0	B8 Rising Main (inc 50% refurbishment)	B8 Rising Main (inc 50% refurbishment)	
S57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	B12 PS (inc 50% refurbishment)	B12 PS (inc 50% refurbishment)	

S58	0	0	0	0	0	0	0	0	228	228	228	228	0	B14 Elect/Mech (inc 50% refurbishment)	B14 Elect/Mech (inc 50% refurbishment)	
S59	0	0	0	0	0	0	0	0	176	0	176	0	176	B16 (inc 50% refurbishment)	B16 (inc 50% refurbishment)	The 2004 Submission indicated that this work would be completed by end of 2009/2010. The work has been deferred due to higher priority works. The work has now been programmed beyond 2009/2010.
S60	0	0	0	0	0	0	0	0	0	0	0	0	0	T6A Elect/Mech (inc 50% refurbishment)	T6A Elect/Mech (inc 50% refurbishment)	
S61	0	0	0	0	0	0	84	84	0	0	84	84	0	T12 Elect/Mech (inc 50% refurbishment)	T12 Elect/Mech (inc 50% refurbishment)	
S62	0	0	0	0	0	0	0	0	97	97	97	97	0	T15 Elect/Mech (inc 50% refurbishment)	T15 Elect/Mech (inc 50% refurbishment)	
S63	0	0	0	0	0	0	0	0	162	162	162	162	0	T19 Elect/Mech (inc 50% refurbishment)	T19 Elect/Mech (inc 50% refurbishment)	
S64	0	0	0	0	0	0	84	84	0	0	84	84	0	T21 Elect/Mech (inc 50% refurbishment)	T21 Elect/Mech (inc 50% refurbishment)	
S65	0	0	0	0	258	258	0	0	0	0	258	258	0	T22 Elect/Mech (inc 50% refurbishment)	T22 Elect/Mech (inc 50% refurbishment)	
S66	0	0	0	0	0	0	84	84	0	0	84	84	0	T23 Elect/Mech (inc 50% refurbishment)	T23 Elect/Mech (inc 50% refurbishment)	
S67	0	0	0	0	0	0	0	0	0	0	0	0	0	T27 Elect/Mech (inc 50% refurbishment)	T27 Elect/Mech (inc 50% refurbishment)	
S68	0	0	0	0	0	0	0	0	0	0	0	0	0	T28 Elect/Mech (inc 50% refurbishment)	T28 Elect/Mech (inc 50% refurbishment)	
S69	0	0	0	0	0	0	0	0	0	0	0	0	0	T31 Elect/Mech (inc 50% refurbishment)	T31 Elect/Mech (inc 50% refurbishment)	
S70	0	0	0	0	0	0	0	0	0	0	0	0	0	WS12 PS and Rising Main (inc 50% refurbishment)	WS12 PS and Rising Main (inc 50% refurbishment)	
S71	0	0	0	0	0	0	0	0	0	0	0	0	0	WS12A Elect/Mech (inc 50% refurbishment)	WS12A Elect/Mech (inc 50% refurbishment)	
S72	0	0	0	0	0	0	0	0	0	0	0	0	0	WS13A PS and Rising Main (inc 50% refurbishment)	WS13A PS and Rising Main (inc 50% refurbishment)	
S74	0	0	0	0	0	0	0	0	0	0	0	0	0	WS46 PS and Rising Main (inc 50% refurbishment)	WS46 PS and Rising Main (inc 50% refurbishment)	
S75	0	0	0	0	0	0	0	0	0	0	0	0	0	WS20 Elect/Mech (inc 50% refurbishment)	WS20 Elect/Mech (inc 50% refurbishment)	
S76	0	0	0	0	0	0	0	0	0	0	0	0	0	WS21 Elect/Mech (inc 50% refurbishment)	WS21 Elect/Mech (inc 50% refurbishment)	
S77	0	0	0	0	0	0	0	0	0	0	0	0	0	WS22 Elect/Mech (inc 50% refurbishment)	WS22 Elect/Mech (inc 50% refurbishment)	
S80	0	0	0	0	0	0	0	0	0	0	0	0	0	WS25 PS and Rising Main (inc 50% refurbishment)	WS25 PS and Rising Main (inc 50% refurbishment)	
S81	0	0	0	0	0	0	0	0	0	0	0	0	0	WS26 Rising Main (inc 50% refurbishment)	WS26 Rising Main (inc 50% refurbishment)	
S82	0	89.25	0	0	0	0	0	0	0	0	0	89.25	89.25	WS29/31 A/B Elect/Mech (inc 50% refurbishment)	WS29/31 A/B Elect/Mech (inc 50% refurbishment)	The 2004 Submission indicated that this work was to be completed in 2004/2005. Due to delays works will be completed in 2005/2006.
S83	0	0	0	0	0	0	0	0	0	0	0	0	0	WS40 Elect/Mech (inc 50% refurbishment)	WS40 Elect/Mech (inc 50% refurbishment)	
S84	0	0	0	0	0	0	0	0	0	0	0	0	0	WS45 PS and Rising Main	WS45 PS and Rising Main	
S85	0	0	0	0	0	0	0	0	0	0	0	0	0	C3 PS (including 50% refurbishment)	0	
S86	0	0	0	0	0	0	0	0	272	272	272	272	0	C4/C5 Elect/Mech (inc 50% refurbishment)	C4/C5 Elect/Mech (inc 50% refurbishment)	
S87	0	0	0	0	0	0	0	0	0	0	0	0	0	C9 Elect/Mech (inc 50% refurbishment)	C9 Elect/Mech (inc 50% refurbishment)	
S88	0	0	0	0	0	0	0	0	0	0	0	0	0	C12 Elect/Mech (inc 50% refurbishment)	C12 Elect/Mech (inc 50% refurbishment)	
S89	0	0	0	0	0	0	0	0	0	0	0	0	0	C12 Rising Main Stage 2	C12 Rising Main Stage 2	
S90	0	0	0	0	0	0	0	0	0	0	0	0	0	C13 Rising Main	C13 Rising Main	
S91	0	0	0	0	0	0	0	0	0	0	0	0	0	C15 PS and Rising Main (inc 50% refurbishment)	C15 PS and Rising Main (inc 50% refurbishment)	

																	The 2004 Submission indicated that this work would be completed by end of 2009/2010.The work has been deferred due to higher priority works. The work has now been programmed beyond 2009/2010.
S92	0	0	0	0	0	0	0	0	162	0	162	0	162	MP5 Elect/Mech (inc 50% refurbishment)	MP5 Elect/Mech (inc 50% refurbishment)		
S93	0	0	0	0	0	0	0	0	0	0	0	0	0	MP7 Elect/Mech (inc 50% refurbishment)	MP7 Elect/Mech (inc 50% refurbishment)		
S94	0	0	0	0	0	0	0	0	0	0	0	0	0	MP11 Elect/Mech (inc 50% refurbishment)	MP11 Elect/Mech (inc 50% refurbishment)		
S95	0	0	0	0	0	0	0	0	0	0	0	0	0	MP12 Elect/Mech (inc 50% refurbishment)	MP12 Elect/Mech (inc 50% refurbishment)		
S96	0	0	0	0	0	0	0	0	0	0	0	0	0	MP13 PS (inc 50% refurbishment)	MP13 PS (inc 50% refurbishment)		
S97	0	0	0	0	0	0	0	0	0	0	0	0	0	MP14 PS (inc 50% refurbishment)	MP14 PS (inc 50% refurbishment)		
S98	0	0	0	0	0	0	0	0	0	0	0	0	0	G1 PS (inc 50% refurbishment)	G1 PS (inc 50% refurbishment)		
S99	0	0	0	0	0	0	0	0	0	0	0	0	0	G2 PS (inc 50% refurbishment)	G2 PS (inc 50% refurbishment)		
S100	0	0	0	0	0	0	0	0	0	0	0	0	0	G2 Rising Main (inc 50% refurbishment)	G2 Rising Main (inc 50% refurbishment)		
																	The initial estimate used in the 2004 Submission was refined in the 2005 Submission based on site conditions.
S101	291	452.2	126	220	0	0	0	0	0	0	417	672.2	255.2	WS9 PS/RM (inc 50% refurbishment)	WS9 PS/RM (inc 50% refurbishment)		
S102	0	0	0	0	0	0	0	0	0	0	0	0	0	WS16 PS/RM (inc 50% refurbishment)	WS16 PS/RM (inc 50% refurbishment)		
S103	0	0	0	0	0	0	290	0	0	290	290	290	0	WS36 E&M (inc 50% refurbishment)	WS36 E&M (inc 50% refurbishment)		
																	An order of cost estimate for ongoing growth related expenditure eg land acquisition,design consultancies etc is incorporated into the long term works programme for planning purposes. This estimate covers a base workload. When the 2005/2006 annual budget was prepared, requirements were again reviewed in detail. The "base" for future expenditure predictions has also been increased in the 2005 Submission to more accurately reflect future expenditure requirements.
S104	200	297.5	200	255	200	260	200	265	200	270	1000	1347.5	347.5	Other	Other		

															3. STANDARDS (All Classes)			
S105															Treatment	Treatment		
S106	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Enclose Sedimentation Tank (Bateau Bay)	Enclose Sedimentation Tank (Bateau Bay)	
S107	1230	0	0	410	0	840	0	0	0	0	1230	1250	20	0	Enclose Head of Works (Wyong South)	Enclose Head of Works (Wyong South)		
S108	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Diesel Generator (Bateau Bay)	Diesel Generator (Bateau Bay)	
S109	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Sludge Dewatering Facility (Charmhaven)	Sludge Dewatering Facility (Charmhaven)	
S110	0	0	1575	308	0	1050	0	215	0	0	1575	1573	2	0	Enclose Head of Works (Toukley)	Enclose Head of Works (Toukley)		
S111	0	0	0	0	2154	630	0	1505	0	0	2154	2135	19	0	Enclose Head of Works (Mannering Park)	Enclose Head of Works (Mannering Park)		
S112	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Inlet Screens (Gwandalan)	Enclose Head of Works (Gwandalan)	
S113	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Inlet Screens Wyong South STW	Inlet Screens Wyong South STW	
S114	0	0	0	0	0	0	0	0	0	339	339	339	339	0	0	Inlet Screens Toukley STW	Inlet Screens Toukley STW	
S115	0	450	0	0	0	0	0	0	0	0	0	0	0	334	Other	Other	Other standards related items identified and included in the 2005/2006 budget (ie upgrading of flow monitoring equipment, capital consultancies, etc).	
	0	118	0	0	0	0	0	0	0	0	0	118	118			WAS Pits	This item covers the construction of pits to allow relocation of sludge pumps currently located in the aeration tanks. The pumps in their current location are costly to maintain. With relocation to separate pits, the pumps will be cheaper to maintain and less subject to blockages. A review of operational practices in early 2005 identified the need for this work.	
	0	417	0	0	0	0	0	0	0	0	0	417	417			Replace Aerators Wyong South	This item covers the replacement of aerators for Tanks 1 and 2. An inspection in early 2005 (subsequent to 2004 Submission) determined that the aerators were approaching end of service life and were uneconomic to rehabilitate.	
	0	238	0	0	0	0	0	0	0	0	0	238	238			Roadway Wyong South	This item covers the replacement of an access road (to the aeration tanks) that is uneconomic to repair/rehabilitate. A detail inspection of the existing road was undertaken early 2005 (subsequent to 2004 Submission) confirmed this requirement.	

S116	0	0	0	0	0	0	0	0	0	0	0	0	0	Mains	Mains	
S117	0	29.75	0	25	0	25	0	25	0	25	0	129.75	129.75	Other	Other	This covers minor standards related construction work eg scour pits etc. In the 2004 Submission future expenditure was included under "Unidentified Works".
S118	0	0	0	0	0	0	0	0	0	0	0	0	0	Pump Stations	Pump Stations	
S119	61	58.31	63	63	65	65	67	67	69	69	325	322.31	2.69	Odour Control	Odour Control	
S120	61	59.5	63	63	65	65	67	67	69	69	325	323.5	1.5	Replace Heavy Lids	Replace Heavy Lids	
S121	61	59.5	63	63	65	65	67	67	69	69	325	323.5	1.5	Generator Connection Points	Generator Connection Points	
S122	256	0	262	256	215	262	0	215	0	0	733	733	0	Diesel Generators	Diesel Generators	
S123	0	83.3	0	0	0	0	0	0	0	0	0	83.3	83.3	Other	Other	Covers items (OH&S equipment) that have been identified and included in 2005/2006 budget as a result of ongoing condition monitoring/ inspections and field reports carried out subsequent to 2004 submission.

Appendix B Capex Form

Wyong Shire Council - Detailed Capital Expenditure

Capex Item	Council 2004/05 submission (All costs are \$,000 in 2005/06)				Atkins/Cardno recommendation				Council 2005/06 submission				Difference				Halcrow/MMA recommendation				Notes	Reduction	
	2005/06	2006/07	2007/08	2008/09	2005/06	2006/07	2007/08	2008/09	2005/06	2006/07	2007/08	2008/09	2005/06	2006/07	2007/08	2008/09	2005/06	2006/07	2007/08	2008/09			
Water Projects (Reviewed)																							
Reservoir - repainting/re-roofing	\$ 133	\$ 82	\$ 103	\$ 102	\$ -	\$ -	\$ -	\$ -	\$ 238	\$ 98	\$ 97	\$ 98	\$ 105	\$ 16	\$ 6	\$ 5	\$ 133	\$ 98	\$ 97	\$ 98	1	-\$ 104	
Reservoir - Other	\$ -	\$ -	\$ -	\$ -					\$ 56	\$ -	\$ -	\$ -	\$ 56	\$ -	\$ -	\$ -	\$ 56	\$ -	\$ -	\$ -		\$ -	
Mains - reahabilitate steel mains	\$ 308	\$ 307	\$ 306	\$ 306					\$ 100	\$ 100	\$ 100	\$ 99	\$ 208	\$ 208	\$ 207	\$ 206	\$ 100	\$ 100	\$ 100	\$ 99		\$ -	
Mains - other	\$ -	\$ -	\$ -	\$ -					\$ 170	\$ -	\$ -	\$ -	\$ 170	\$ -	\$ -	\$ -	\$ 170	\$ -	\$ -	\$ -		\$ -	
Pump stations - electrical refurbishment	\$ 246	\$ 123	\$ 51	\$ -					\$ 115	\$ 98	\$ 97	\$ 98	\$ 131	\$ 25	\$ 46	\$ 98	\$ 115	\$ 98	\$ 97	\$ 98		\$ -	
Pump stations - other (critical spares)	\$ -	\$ -	\$ -	\$ -					\$ 30	\$ 30	\$ 30	\$ 31	\$ 30	\$ 30	\$ 30	\$ 31	\$ 30	\$ 30	\$ 30	\$ 31		\$ -	
General (Communications/Equipment) - refurbish	\$ 102	\$ 102	\$ 103	\$ 102					\$ 260	\$ 102	\$ 103	\$ 102	\$ 158	\$ -	\$ -	\$ -	\$ 102	\$ 102	\$ 103	\$ 102	1	-\$ 158	
General (Communications/Equipment) - refurbish	\$ -	\$ -	\$ -	\$ -					\$ 100	\$ -	\$ -	\$ -	\$ 100	\$ -	\$ -	\$ -	\$ 100	\$ -	\$ -	\$ -		\$ -	
General (Communications/Equipment) - Other	\$ -	\$ -	\$ -	\$ -					\$ 194	\$ 100	\$ 100	\$ 99	\$ 194	\$ 100	\$ 100	\$ 99	\$ 194	\$ 100	\$ 100	\$ 99		\$ -	
JWS Mardi Dam raising	\$ 205	\$ 225	\$ 1,402	\$ -	\$ 205	\$ 225	\$ 1,402	\$ -	\$ 500	\$ 1,000	\$ 122	\$ -	\$ 295	\$ 775	\$ 1,280	\$ -	\$ 500	\$ 1,000	\$ 122	\$ -		\$ -	
JWS Hunter Water connection	\$ -	\$ -	\$ -	\$ -	\$ 3,895	\$ 3,793	\$ -	\$ -	\$ 5,159	\$ 3,826	\$ -	\$ -	\$ 5,159	\$ 3,826	\$ -	\$ -	\$ 5,159	\$ 3,826	\$ -	\$ -		\$ -	
JWS Groundwater extraction	\$ -	\$ -	\$ -	\$ -	\$ 5,945	\$ -	\$ -	\$ -	\$ 6,500	\$ 4,350	\$ 1,000	\$ -	\$ 6,500	\$ 4,350	\$ 1,000	\$ -	\$ 6,500	\$ 4,350	\$ 1,000	\$ -		\$ -	
JWS Desalination	\$ 7,688	\$ 12,044	\$ 5,125	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 250	\$ 100	\$ -	\$ -	\$ 7,438	\$ 11,944	\$ 5,125	\$ -	\$ 250	\$ 100	\$ -	\$ -		\$ -	
JWS Mardi to Mangrove transfer system	\$ -	\$ -	\$ -	\$ 1,538	\$ -	\$ -	\$ -	\$ 1,538	\$ 200	\$ 300	\$ -	\$ -	\$ 200	\$ 300	\$ -	\$ 1,538	\$ 200	\$ 300	\$ -	\$ -		\$ -	
JWS Project management for major projects	\$ -	\$ -	\$ -	\$ -					\$ 425	\$ 618	\$ 407	\$ 187	\$ 425	\$ 618	\$ 407	\$ 187	\$ 558	\$ 915	\$ 142	\$ 22		\$ -	
Mardi/Warnervale Trunk Main	\$ 256	\$ 2,119	\$ 2,120	\$ -					\$ 300	\$ 2,342	\$ 2,066	\$ -	\$ 44	\$ 223	\$ 53	\$ -	\$ 300	\$ 2,342	\$ 2,066	\$ -		\$ -	
Mains - Section 94 works (by Council)	\$ 592	\$ 329	\$ 339	\$ 146					\$ 200	\$ 321	\$ 323	\$ 142	\$ 392	\$ 8	\$ 16	\$ 4	\$ 200	\$ 321	\$ 323	\$ 142		\$ -	
Mains - Trunk main Gorokan to Norah Head	\$ -	\$ 1,538	\$ 1,537	\$ -					\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,538	\$ 1,537	\$ -	\$ -	\$ -	\$ -	\$ -		\$ -	
Mains - Trunk main Gwandalan to Chain Valley Ba	\$ -	\$ -	\$ -	\$ -					\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		\$ -	
Mains - Trunk main Warnervale to Bushells Ridge	\$ -	\$ 257	\$ 257	\$ 2,866					\$ 2,000	\$ 6,846	\$ -	\$ -	\$ 2,000	\$ 6,589	\$ 257	\$ 2,866	\$ 2,000	\$ 6,846	\$ -	\$ -		\$ -	
Mains - Entrance/Nth Entrance trunk main	\$ 410	\$ -	\$ -	\$ -					\$ 700	\$ -	\$ -	\$ -	\$ 290	\$ -	\$ -	\$ -	\$ 535	\$ -	\$ -	\$ -	4	-\$ 165	
Mains - Other	\$ 440	\$ 439	\$ 438	\$ 436					\$ 600	\$ 500	\$ 500	\$ 500	\$ 160	\$ 60	\$ 62	\$ 63	\$ 600	\$ 500	\$ 500	\$ 500		\$ -	
JWS Mardi highlift pump station and associate	\$ 1,000	\$ 2,665	\$ 170	\$ -	\$ 1,000	\$ 2,665	\$ 170	\$ -	\$ 500	\$ 6,245	\$ 2,080	\$ -	\$ 500	\$ 3,580	\$ 1,910	\$ -	\$ 500	\$ 5,500	\$ 100	\$ 100	5	-\$ 2,625	
JWS Mardi Dam transfer system	\$ 3,143	\$ 971	\$ -	\$ -	\$ 2,929	\$ 721	\$ -	\$ -	\$ 2,000	\$ 7,500	\$ -	\$ -	\$ 1,143	\$ 6,529	\$ -	\$ -	\$ 1,794	\$ 6,926	\$ -	\$ -	6	-\$ 780	
JWS Mooney Mooney transfer system	\$ 122	\$ 194	\$ 1,593	\$ -	\$ 103	\$ 205	\$ 615	\$ -	\$ 50	\$ -	\$ -	\$ 595	\$ 72	\$ 194	\$ 1,593	\$ 595	\$ 50	\$ -	\$ -	\$ 595		\$ -	
JWS Lower Wyong transfer system	\$ 808	\$ 1,816	\$ -	\$ -	\$ 808	\$ 1,816	\$ -	\$ -	\$ 150	\$ 2,062	\$ 688	\$ -	\$ 658	\$ 246	\$ 688	\$ -	\$ 150	\$ 2,062	\$ 688	\$ -		\$ -	
Treatment - Fishway - Upper Ourimbah Ck weir	\$ 308	\$ -	\$ -	\$ -					\$ 116	\$ -	\$ -	\$ -	\$ 192	\$ -	\$ -	\$ -	\$ 116	\$ -	\$ -	\$ -		\$ -	
Treatment - Other (ultraviolet disinfection)	\$ -	\$ -	\$ -	\$ -					\$ 400	\$ -	\$ -	\$ -	\$ 400	\$ -	\$ -	\$ -	\$ 400	\$ -	\$ -	\$ -		\$ -	
Treatment - Activated carbon plant (Mardi)	\$ -	\$ -	\$ -	\$ -					\$ 200	\$ -	\$ -	\$ -	\$ 200	\$ -	\$ -	\$ -	\$ 200	\$ -	\$ -	\$ -		\$ -	
Reservoirs - Flow meters	\$ -	\$ -	\$ -	\$ -					\$ 50	\$ -	\$ -	\$ -	\$ 50	\$ -	\$ -	\$ -	\$ 50	\$ -	\$ -	\$ -		\$ -	
Mains/Pump Stations - General Items	\$ 133	\$ 134	\$ 133	\$ 133					\$ 240	\$ 140	\$ 140	\$ 139	\$ 107	\$ 6	\$ 7	\$ 7	\$ 140	\$ 140	\$ 140	\$ 139	1	-\$ 100	
Unidentified works	\$ 2,235	\$ -	\$ 134	\$ 1,553	\$ 1,128	\$ -	\$ -	\$ 718	\$ -	\$ 2,111	\$ 2,168	\$ 4,323	\$ 2,235	\$ 2,111	\$ 2,034	\$ 2,770	\$ -	\$ 1,223	\$ 755	\$ 458		-\$ 6,166	
Sub Total Capex - Water Projects (Reviewed)	\$ 18,128	\$ 23,344	\$ 13,812	\$ 7,181	\$ 16,011	\$ 9,425	\$ 2,187	\$ 2,255	\$ 21,803	\$ 38,787	\$ 10,021	\$ 6,412	\$ 3,675	\$ 15,443	\$ 3,790	\$ 769	\$ 21,202	\$ 36,878	\$ 6,363	\$ 2,483			
Water Projects (Total Proposed Expenditure)		\$62,465				\$29,878				\$77,024				\$14,559				\$66,926					
	\$ 19,346	\$ 24,606	\$ 14,942	\$ 8,149	\$ 21,733	\$ 13,802	\$ 7,004	\$ 7,519	\$ 22,833	\$ 40,345	\$ 11,499	\$ 7,394	\$ 3,487	\$ 15,740	\$ 3,443	\$ 756	\$ 22,232	\$ 38,436	\$ 7,841	\$ 3,464			
		\$67,043				\$50,058				\$82,071				\$15,028				\$71,973					
					Atkins' recommended reduction in capex	\$ 2,387	\$ 10,804	\$ 7,938	\$ 630	\$ 1,030	\$ 1,558	\$ 1,478	\$ 981					\$ 6,571	\$ 13,457	\$ 5,789	\$ 2,747		
					Reduction as % of original Council expenditure	12.3%	-43.9%	-53.1%	-7.7%														
																		\$28,564					
Capex Item (All costs are \$,000 in 2005/06)	Council 2004/05 submission				Atkins/Cardno recommendation				Council 2005/06 submission				Difference				Halcrow/MMA recommendation				Notes		
	2005/06	2006/07	2007/08	2008/09	2005/06	2006/07	2007/08	2008/09	2005/06	2006/07	2007/08	2008/09	2005/06	2006/07	2007/08	2008/09	2005/06	2006/07	2007/08	2008/09			
Sewer Projects (Reviewed)																							
Treatment - General Mech/Refurbishment	\$ 51	\$ 51	\$ 50	\$ 50					\$ 105	\$ 51	\$ 50	\$ 50	\$ 54	\$ -	\$ -	\$ -	\$ 51	\$ 51	\$ 50	\$ 50	1	-\$ 54	
Treatment - replace aerators (Tank 3) Wyong Stn STW	\$ -	\$ -	\$ -	\$ -					\$ 71	\$ -	\$ -	\$ -	\$ 71	\$ -	\$ -	\$ -	\$ 71	\$ -	\$ -	\$ -		\$ -	
Treatment - Civil refurbishment	\$ 20	\$ 20	\$ 20	\$ 20					\$ 89	\$ 20	\$ 20	\$ 20	\$ 69	\$ -	\$ -	\$ -	\$ 20	\$ 20	\$ 20	\$ 20	1	-\$ 70	
Treatment - Flow meter refurbishment	\$ 82	\$ 82	\$ 82	\$ 82					\$ 83	\$ 70	\$ 70	\$ 71	\$ 1	\$ 12	\$ 11	\$ 11	\$ 83	\$ 70	\$ 70	\$ 71		\$ -	
Treatment - Other	\$ -	\$ -	\$ -	\$ -					\$ 79	\$ -	\$ -	\$ -	\$ 79	\$ -	\$ -	\$ -	\$ 79	\$ -	\$ -	\$ -		\$ -	
Mains - Sewer rehabilitation	\$ 306	\$ 304	\$ 306	\$ 306					\$ 238	\$ 293	\$ 293	\$ 293	\$ 68	\$ 12	\$ 12	\$ 13	\$ 238	\$ 293	\$ 293	\$ 293		\$ -	
Mains - Other	\$ -	\$ -	\$ -	\$ -					\$ 60	\$ 50	\$ 49	\$ 49	\$ 60	\$ 50	\$ 49	\$ 49	\$ 60	\$ 50	\$ 49	\$ 49		\$ -	
General - Refurbish telemetry	\$ 100	\$ 99	\$ 100	\$ 100					\$ 286	\$ 101	\$ 103	\$ 102	\$ 186	\$ 2	\$ 3	\$ 2	\$ 100	\$ 101	\$ 103	\$ 102	1	-\$ 186	
General - Refurbish 2-way radio system	\$ -	\$ -	\$ -	\$ -					\$ 83	\$ -	\$ -	\$ -	\$ 83	\$ -	\$ -	\$ -	\$ 83	\$ -	\$ -	\$ -		\$ -	
General - Mains power at Scaddens Ridge	\$ -	\$ -	\$ -	\$ -					\$ 315	\$ -	\$ -</												

Halcrow Pacific Pty Ltd

Level 1 542 Station Street Box Hill Melbourne VIC 3128 Australia

Tel +61 3 9899 9777 Fax +61 3 9899 1214

www.halcrow.com